An experimental test of the accumulation of self-fulfilling prophecy effects and perceptual biases across perceivers

Jennifer Willard
Iowa State University

Follow this and additional works at: https://lib.dr.iastate.edu/rtd

Recommended Citation
https://lib.dr.iastate.edu/rtd/19062

This Thesis is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Retrospective Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.
An experimental test of the accumulation of
self-fulfilling prophecy effects and perceptual biases across perceivers

by

Jennifer L. Willard

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Major: Psychology

Program of Study Committee:
Stephanie Madon, Major Professor
Gary Wells
Dianne Draper

Iowa State University
Ames, Iowa
2006
Graduate College
Iowa State University

This is to certify that the master's thesis of

Jennifer L. Willard

has met the thesis requirements of Iowa State University

Signatures have been redacted for privacy
Table of Contents

List of Tables iv
List of Figures v
Abstract vi

Introduction 1

Chapter I: Expectancy Confirmation Processes 4
  Self-Fulfilling Prophecies 4
  Perceptual Biases 5
  Empirical Evidence 5

Chapter II: The Power of Expectancy Confirmation Effects 9
  Target Characteristics 9
  Situational and Motivational Factors 10
  Valence of Perceivers’ Expectations 10
  Accumulation Effects 11

Chapter III: An Experimental Test 16
  Conceptual Overview 16
  Overview of Experiment 16

Chapter IV: Method 19
  Sample-Size Estimation – Power Analysis 19
  Participants 19
  Design 19
  Materials and Instruments 19
  Procedures 21

Chapter V: Results 24
  Preliminary Analyses 24
  Main Analyses 27

Chapter VI: Discussion 35
  Perceptual Biases 36
  Mediation 36
  Limitations 38
  Conclusion 39

References 41
List of Tables

Table 1: Correlations among targets' pre-mood scores and trait hostility 25
Table 2: Perceivers' ratings of targets and targets' ratings of themselves 26
Table 3: Perceivers' average impression ratings of targets' hostility and kindness 29
Table 4: Means and standard deviations for perceivers' impressions of targets' hostility and kindness presented by condition 30
Table 5: Results of the stepwise regression analyses testing for concurrent and synergistic accumulation of perceptual biases 33
List of Figures

Figure 1: Targets' mean post-anger scores as a function of expectation condition 28
Figure 2: Perceivers' mean impression ratings of targets as a function of expectation condition 32
Abstract

This research examined whether self-fulfilling prophecies and perceptual biases accumulated across perceivers. Two types of accumulation processes were tested: concurrent and synergistic accumulation. Concurrent accumulation occurs when the independent expectancy effects of multiple perceivers add up. Synergistic accumulation occurs when one perceiver’s expectancy effect is stronger when other perceivers hold similar expectations. Trios of same-sex participants ($N = 107$), each consisting of two perceivers and one target, were randomly assigned to one of three conditions: a no hostile expectation condition, a single hostile expectation condition, and a double hostile expectation condition. These conditions manipulated perceivers’ expectations of the target and the similarity of their expectations. In the no hostile expectation condition neither perceiver was given an expectation about the target’s personality. In the single hostile expectation condition one perceiver was given no expectation about the target’s personality, while the other was given the expectation that the target was hostile. In the double hostile expectation condition both perceivers were given an expectation that the target was hostile. Following the expectation manipulation, each trio participated in an interaction in which perceivers asked targets questions to find out more about them. These questions were selected from a larger pool of questions that were designed to elicit either a non-hostile or hostile response. After the interaction, targets’ mood and perceivers’ impressions of the target were assessed. Results were consistent with a hypothesis confirmation process. Perceivers given a hostile expectation asked more hostile questions than perceivers given no hostile expectation. However, targets did not confirm perceivers’ expectations by reporting a hostile mood; thus, no self-fulfilling prophecy or the accumulation of such effects occurred. Although targets’ mood did not change, perceivers rated the targets more negatively when given a hostile expectation compared to those given no hostile expectation, indicating that a perceptual bias occurred. Moreover, perceivers’ impressions of targets were more negative as the number of perceivers holding a hostile expectation increased. This pattern of results indicated that perceptual biases were accumulating across perceivers in a concurrent fashion. Results did not support a pattern of synergistic accumulation of perceptual biases.
Introduction

Humans are social animals that strive to explain and predict their environment. As such, everyday people develop expectations about one another in an attempt to make sense of the world. In many cases people's expectations are inaccurate. For example, people may base their expectations about others on invalid information such as rumor, hearsay, and social stereotypes. A primary interest of social psychologists has been identifying processes through which people's inaccurate expectations about others are confirmed. Researchers have identified two such processes, confirmation through a self-fulfilling prophecy and confirmation through a perceptual bias.

When a person holds an inaccurate expectation about another person that becomes true, then a self-fulfilling prophecy has occurred. In this case, there is objective evidence to suggest that the expectation has been confirmed. One person's expectations caused another person's behavior to change in an expectancy-consistent manner. In contrast, a perceptual bias occurs when an inaccurate expectation is confirmed in the mind of the individual holding the expectation. In this case, an individual believes the expectation has been confirmed to a greater extent than it has in reality.

Research has provided support for the existence of both self-fulfilling prophecy effects and perceptual bias effects (see Jussim, Eccles, & Madon, 1996; Rosenthal & Rubin, 1978; Snyder & Stukas, 1999, for reviews). However, the magnitude of these effects tends to be modest (see Jussim, 1991; Jussim et al., 1996; Rosenthal & Rubin, 1978, for reviews). Nevertheless, this does not mean that expectancy effects are always modest. There are conditions under which these effects have the potential to be powerful (Jussim, 1986). For example, even small expectancy effects can become powerful if they accumulate across people. When different people all hold similar and inaccurate beliefs about a given person, there is the potential for their individual expectancy effects to combine in such a way that together they have a larger expectancy effect than does any one of them alone.

Researchers have identified two ways in which expectancy effects may accumulate across people. These effects may accumulate in an additive fashion – a process referred to as concurrent accumulation (Jussim et al., 1996). Concurrent accumulation occurs when the combined expectancy effects of two or more people are greater than any of their individual effects. Expectancy effects may also accumulate in an interactive fashion – a process referred
to as synergistic accumulation (Madon, Guyl, Spoth, & Willard, 2004). Synergistic accumulation occurs when the expectancy effects of two or more people are greater in combination than the sum of their individual effects.

All of the research addressing the accumulation of expectancy effects has focused on the accumulation of self-fulfilling prophecy effects, and almost all of this work has been theoretical. The only exception is a correlational study that examined whether the self-fulfilling effects that parents had on their children's alcohol use accumulated across mothers and fathers (Madon et al., 2004). Consistent with the process of accumulation, the results of this study indicated that parents' expectations elicited the greatest degree of confirmatory behavior from their children when both mothers and fathers held unfavorable expectations about their children's alcohol use. This finding is important because it provides support for the notion that accumulation effects may be one mechanism by which self-fulfilling prophecies exert powerful and harmful effects on individuals' outcomes. However, because this finding was based on correlational data, strong statements of causality cannot be made. Thus, conducting experimental tests is necessary to provide additional support for cumulative self-fulfilling prophecy effects.

Even though it has not been discussed in the literature, it is possible that perceptual biases may also accumulate across people in either a concurrent or synergistic fashion. That is, two people holding similar and inaccurate expectations for another person may come to believe that their expectations have been confirmed to a greater extent than they would have otherwise had they been alone or with someone holding a dissimilar expectation. Such a process, if it occurs, could have important implications for individuals who have multiple inaccurate expectations held about them. For example, people may choose to avoid future contact with those individuals whom they perceive as confirming an unpleasant expectation, especially when others appear to agree with them. In certain contexts, such as an interview setting, perceptual biases could then negatively impact those individuals who are the target of unfavorable and inaccurate expectations.

The primary scientific objective of this thesis is to advance current knowledge regarding the potential for self-fulfilling prophecy effects and perceptual bias effects to accumulate across people. With this objective in mind, this thesis will make the following unique contributions to the literature. First, it will provide the first experimental test of
cumulative self-fulfilling prophecy effects and will do so with respect to both concurrent and synergistic accumulation. Second, it will introduce the idea that perceptual biases may also accumulate across people through similar processes. Third, it will provide the first empirical test of cumulative perceptual bias effects.

This thesis is organized into six chapters. The first chapter reviews both the naturalistic and the experimental literature on self-fulfilling prophecy effects and perceptual biases. The second chapter discusses the overall power of expectancy effects and highlights four different conditions under which these effects may have relatively greater power, including the accumulation of expectancy effects across people. The third chapter provides an overview of the methods and hypotheses used in this investigation, followed by a more detailed description of the methods in chapter four. The last two chapters present the experimental results and a discussion of those results.
Chapter I: Expectancy Confirmation Processes

The social psychological literature has long emphasized the power of individuals to construct social reality (Klein & Snyder, 2003; Miller & Turnbull, 1986; Snyder & Stukas, 1999). This emphasis dates back to New Look in Perception research (e.g., Bruner, 1957; Merton, 1948), which proposed that people interpret reality through perceptual lenses that are biased by people’s motives, emotions, and expectations. Self-fulfilling prophecies and perceptual biases are key processes of the social constructivist perspective because they involve people’s social beliefs either changing actual social reality or biasing subsequent perceptions of objective reality. The following sections describe these expectancy confirmation processes in greater detail.

Self-fulfilling Prophecies

A self-fulfilling prophecy refers to situations in which inaccurate expectations become true through social interaction (Merton, 1948). A self-fulfilling prophecy includes three steps. First, an individual (the perceiver) must develop an inaccurate expectation about another individual (the target). For example, a teacher (the perceiver) may develop the expectation that a particular student (the target) is exceptionally bright when the student may in fact be performing only at the average level. Second, the perceiver must treat the target as if the inaccurate expectation is true. The teacher who believes the student is exceptionally bright must treat that student as if he or she really is exceptionally bright. The teacher may do this by smiling more at the student relative to the other students in the class, spending more time with the student than he or she spends with other students, asking the student more challenging questions than he or she asks other students, or teaching the student more difficult material than he or she teaches other students in the class (Rosenthal, 1973). Third, the target must respond to the perceiver’s treatment in a manner that is consistent with the inaccurate expectation, thereby causing it to come true. For example, the student who is treated as if he or she is exceptionally bright would have to learn more than would other students in the class. In this example, the teacher’s inaccurate expectation about the student’s ability changed the achievement of the student in a direction consistent with the inaccurate expectation. Hence, the teacher’s expectation had a self-fulfilling effect on the student’s behavior.
**Perceptual Biases**

A perceptual bias occurs when a perceiver’s inaccurate expectation about a target biases his or her subsequent perceptions and impressions of the target in a manner consistent with the inaccurate expectation. In other words, a perceptual bias occurs when an inaccurate expectation is confirmed in the mind of the perceiver rather than in the behavior of a target (Neuberg, 1989; Snyder & Haugen, 1995). For example, a teacher’s inaccurate expectation about a student’s intelligence may bias the teacher’s evaluation of the student’s classroom performance but not influence the student’s actual level of achievement as measured by a standardized test. Perceptual biases are the result of perceivers interpreting, remembering, and/or explaining a target’s behavior in ways that are consistent with their initially inaccurate expectations (Jussim et al., 1996).

**Empirical Evidence**

Researchers have investigated expectancy confirmation processes using both naturalistic and experimental methodologies. In the following sections, the confirmation literature relevant to these methods is discussed.

**Naturalistic methodology.** A host of studies have investigated the occurrence of expectancy confirmation processes in the context of people’s day-to-day lives (e.g., Brattesani, Weinstein, & Marshall, 1984; Jussim, 1989; Jussim & Eccles, 1992; Madon, Guyll, Spoth, Cross, Hilbert, 2003; Madon et al., 2004; West & Anderson, 1976). These studies rely on correlational survey data. In the typical study of this type, perceivers and targets complete surveys at multiple points in time. The surveys include items that assess perceivers’ expectations about targets with respect to a behavior (e.g., teachers’ expectations about their students’ academic performance), valid predictors of targets’ expectancy-relevant behaviors (e.g., students’ previous grades, previous standardized test scores, social class, motivation, etc.), and the degree to which the targets currently exhibit the expected behavior (e.g., students’ recent standardized test scores). Self-fulfilling prophecy effects are operationalized as the relation between perceivers’ expectations assessed at an early point in time (e.g., beginning of the 6th grade) and targets’ subsequent performance on objective measures of behavior (e.g., 7th grade standardized test scores) after controlling for the valid predictors. Perceptual biases are operationalized as the relation between perceivers’ expectations assessed at an early point in time (e.g., beginning of the 6th grade) and
perceivers’ subsequent impressions and evaluations of targets (e.g., 7th grade final grades) after controlling for objective changes in targets’ behavior (e.g., 7th grade standardized test scores).

Naturalistic research addressing these processes has provided convergent evidence in support of naturally occurring expectancy confirmation processes (e.g., Jussim, 1989; Jussim & Eccles, 1992; Madon et al., 2003; Madon et al., 2004; Madon, Jussim, & Eccles, 1997; Madon, Smith, Jussim, Russell, Eccles, Palumbo, & Walkiewicz, 2001; Madon, Willard, Guyll, Trudeau, & Spoth, in press; Smith, Jussim, & Eccles, 1999; West & Anderson, 1976). Within the educational setting, for example, teachers’ expectations about their students’ ability have been shown to predict their students’ subsequent achievement after accounting for students’ previous achievement and motivation, thereby demonstrating the self-fulfilling influence of teachers’ expectations. Additionally, teachers’ perceptions of students’ effort have been shown to predict students’ final year grades to a larger extent than they predict students’ scores on a statewide-standardized test, thereby demonstrating perceptual biases (Jussim, 1989; Jussim & Eccles, 1992). Similar findings have emerged in other contexts with other outcomes (Madon et al., 2003, 2004).

There are several benefits to using a naturalistic methodology to study expectancy confirmation processes. Using this methodology allows researchers to study important target outcomes such as student achievement. Additionally, researchers can investigate the influence of unfavorable expectations on these outcomes without the ethical concern that would be present in an experimental design in which inaccurate and harmful expectations would have to be induced.

Although naturalistic methodologies have several distinct advantages, there are limitations as well. One limitation is the possibility of reverse causal relations. For example, imagine that there is an association between variable A, a predictor variable, and variable B, the dependent variable. With correlational data, it is unclear whether variable A is causing variable B or variable B is causing variable A. Although reverse causal relations can be ruled out with the use of longitudinal data, such designs cannot rule out the possibility that both a predictor and dependent variable were caused by the same third unmeasured variable. Accordingly, a second limitation of naturalistic methodologies is the possible omission of a relevant third variable. If a relevant third variable is omitted from an analytic model, then the
relation between a predictor and a dependent variable may be misrepresented. For example, if variable C was omitted from an analytical model relating variable A and B, then it could be responsible for the relation between variables A and B. With respect to expectancy effects, the possible omission of a relevant third variable raises the possibility that expectancy effects have been overestimated. The only way to definitively rule out the possibility of an omitted third variable is to study expectancy effects with an experimental methodology in which perceivers’ inaccurate expectations are induced.

**Experimental methodology.** Researchers using an experimental methodology investigate the occurrence of expectancy confirmation processes in a context in which perceivers’ expectations are systematically controlled and manipulated (e.g., Darley & Fazio, 1980; Harris, Milich, Corbitt, Hoover, & Brady, 1992; Rosenthal & Jacobson, 1968; Skrypnek & Snyder, 1982; Snyder & Haugen, 1994; Snyder, Tanke, & Berscheid, 1977; Swann & Ely, 1984). In the typical experimental paradigm, individuals are designated as either perceivers or targets. The perceiver is induced with an inaccurate expectation about the target. The perceiver then interacts with the target. This social interaction provides perceivers with the opportunity to communicate their expectations to targets. Perceivers may communicate their expectations through nonverbal behaviors, such as smiling, tone of voice, and interpersonal distance (Harris, 1993). They may also convey their expectations through the type of climate created in the interaction, the amount of feedback they give to targets, the amount of effort they put into the interaction, and the opportunities they give targets to respond (Rosenthal, 1973). Targets’ behaviors during the interaction and perceivers’ expectations after the interaction are assessed to examine expectancy confirmation processes.

To determine if a self-fulfilling prophecy is occurring, researchers measure whether perceivers’ expectations influenced targets’ behaviors in a manner consistent with the perceivers’ initially inaccurate expectations. If the targets’ behaviors are found to be consistent with perceivers’ prior expectations and are significantly different from either a control condition in which perceivers were not induced with an inaccurate expectation or a condition where perceivers held a different expectation, then a self-fulfilling prophecy has occurred. To determine if a perceptual bias is occurring, researchers measure whether perceivers’ initially inaccurate expectations about the target influence their impressions of the target after the interaction. If perceivers’ impressions of the targets are consistent with
their prior expectations after accounting for the targets’ actual behaviors, then a perceptual bias has occurred.

A classic example of this type of paradigm is Rosenthal and Jacobson’s (1968) field study examining the influence of teacher expectations on students’ IQ. In addition to standard IQ tests, elementary students were purportedly given a test designed to identify children who were ‘late bloomers’. Based on fictitious test results, teachers were led to expect these ‘late bloomers’ to show large gains in their IQs over the next year. In reality, experimenters randomly selected these children. Students identified as ‘late bloomers’ were no more likely than other students to show IQ gains. Nonetheless, later IQ tests revealed that the children whom teachers had expected to make larger IQ gains did so. This indicates that through interactions between teachers and students, teachers’ expectations influenced students’ achievement. Thus, these results were consistent with a self-fulfilling prophecy.

Furthermore, teachers in this study reported their impressions of the children’s behavior in the classroom at the end of the year (Rosenthal & Jacobson, 1968). Teachers rated those children that were identified as ‘late bloomers’ more positively than they did other children. They described these children as being more interesting, more curious, more appealing, better adjusted, and more autonomous than the other children. This indicates that teachers’ expectations influenced their later judgments of these students. Thus, results were also consistent with a perceptual bias. Rosenthal & Jacobson’s findings showing self-fulfilling prophecy effects and perceptual biases have been replicated in a variety of contexts (see Rosenthal, 2002; Rosenthal & Rubin, 1978; Snyder & Stukas, 1999 for reviews).
Chapter II: The Power of Expectancy Confirmation Effects

Expectancy confirmation processes have historically been characterized as having powerful effects on targets' outcomes (Darley & Fazio, 1980; Merton, 1948; Miller & Turnbull, 1986; Rosenthal & Jacobson, 1968). For example, Merton (1948) believed that self-fulfilling prophecies had the potential to contribute greatly to social inequalities and economic fluctuations. However, the empirical evidence has not supported this claim (Jussim, 1991; Jussim & Eccles, 1992; Jussim et al., 1996; Madon et al., 1997). The magnitude of naturally occurring expectancy effects typically range from .1 to .2 in terms of standardized regression coefficients (Jussim, 1991). Likewise, the magnitude of expectancy effects within experiments are also modest (r = .3; Rosenthal, 2002; Rosenthal & Rubin, 1978). However, these modest effects are averages. Under some conditions the power of expectancy effects may be greater than average effect sizes indicate. Researchers interested in identifying when expectancy effects are relatively powerful have focused on target characteristics, situational and motivational factors, the valance of perceivers' expectations, and the accumulation of expectancy effects. Each of these conditions is discussed next in greater detail.

Target Characteristics

Research relevant to self-fulfilling prophecies indicates that self-fulfilling prophecies are more powerful among targets belonging to stigmatized social groups including, minorities, targets from lower social class backgrounds, targets with histories of poor performance, and targets belonging to multiple stigmatized groups (Jussim et al., 1996; Madon et al., 1997; Smith, Jussim, Eccles, VanNoy, Madon, & Palumbo, 1998). Self-fulfilling prophecies are also more powerful among targets’ that have unclear self-perceptions (Swann & Ely, 1984).

Although there does not exist any research examining whether these same target characteristics influence the power of perceptual bias effects, it seems plausible that they might. For example, perceivers may be more likely to perceive targets in line with their inaccurate expectations when targets are from stigmatized groups because in such cases perceivers’ expectations may be derived from social stereotypes, which are often deeply engrained and strongly held. Perceivers may also be especially likely to perceive targets as confirming their inaccurate expectations when targets have unclear self-views because such
targets may not attempt to self-verify as strongly as targets with clear self-views. Thus, perceivers interacting with targets who hold unclear self-views may not be confronted with as much disconfirming information as are perceivers interacting with targets who hold clear self-views. This may increase the likelihood that perceivers will believe that their inaccurate expectations have been confirmed even when they have not.

**Situational and Motivational Factors**

Expectancy effects are also more powerful in the presence of certain situational factors. For example, research has shown that the presence of incentives, the length of the interaction between individuals, the status of the perceiver holding the expectation effects (Cooper & Hazelrigg, 1988; Copeland, 1994), and the perceivers’ awareness of their power can all serve to moderate the strength of expectancy confirmation processes (Harris, Lightner, & Manolis, 1998). Perceivers’ interpersonal motives also influence the power of expectancy confirmation processes. When perceivers are motivated to establish a stable impression of the target (Snyder, 1992; Snyder & Haugen, 1994, 1995), are motivated to confirm their expectations due to an incentive (Cooper & Hazelrigg, 1988), or when they are highly confident in the validity of their expectations (Swann & Ely, 1984), self-fulfilling prophecies and perceptual biases are more likely to occur. In contrast, when perceivers are motivated to get along with a target, expectancy effects are less likely to occur (Neuberg, Judice, Virdin, & Carrillo, 1993).

Targets’ goals have also been shown to influence the occurrence of a self-fulfilling prophecy, but not the occurrence of a perceptual bias. For example, Snyder and Haugen (1995) showed that targets who were motivated to acquire stable and predictable impressions of perceivers were less influenced by perceivers’ inaccurate expectations than were targets who were motivated to ensure a smooth interaction or targets with no explicit motivation. However, regardless of targets’ motivations, perceivers motivated to acquire stable and predictable impressions of targets rated them consistent with their expectancies. Thus, even when perceivers did not have a self-fulfilling influence on targets’ behaviors, a perceptual bias occurred.

**Valence of Perceiver Expectations**

Research has also examined whether unfavorable or favorable expectations are more likely to result in expectancy effects. Research in this area has focused primarily on
confirmation through a self-fulfilling prophecy. If favorable expectations elicit more confirmatory behavior than unfavorable expectations, then self-fulfilling prophecies are helping targets more than they are harming them. Alternatively, if unfavorable expectations elicit more confirmatory behavior than favorable expectations, then self-fulfilling prophecies are harming targets more than they are helping them. Much of the discussion on this issue has been theoretical with many researchers suggesting that unfavorable expectations result in more powerful self-fulfilling prophecy effects than favorable expectations (Babad, Inbar, & Rosenthal, 1982; Brophy, 1983; Merton, 1948). However, the empirical research bearing on this hypothesis has been mixed (for reviews, see Jussim, Palumbo, Chatman, Madon, & Smith, 2000; Snyder & Stukas, 1999). Whereas early work suggested that perceivers’ self-fulfilling effects harm targets more than they help them (Babad et al., 1982; Sutherland & Goldschmid, 1974), more recent work has suggested that perceivers’ self-fulfilling effects help targets more than they harm them (Madon et al., 1997; Madon et al., 2003). Given the lack of consensus concerning these research findings, further examination regarding the moderating influence of an expectation’s valence is needed before a definitive conclusion can be reached as to whether favorable or unfavorable expectations have stronger self-fulfilling effects.

Although there has been no research examining specifically whether favorable or unfavorable expectations are more likely to result in a perceptual bias, there is empirical evidence suggesting that people are generally influenced more by negative information than by positive information (for review, see Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). For example, individuals tend to pay more attention to negative than positive information (Abele, 1985; Graziano, Brothrn & Berscheid, 1980) and regard negative information as more useful than positive information (Kanouse & Hanson, 1971). Individuals are also influenced more by possible losses than possible rewards in decision-making tasks (Kahneman & Tversky, 1982). Taken together, these findings suggest that perceivers may be more likely to believe that targets have confirmed their expectations when those expectations are unfavorable versus favorable.

*Accumulation Effects*

Self-fulfilling prophecy effects and perceptual biases may also be more powerful if they accumulate. The literature distinguishes between two general classes of accumulation –
accumulation that occurs over time and accumulation that occurs across perceivers (Jussim et al., 1996; Madon et al., 2004, in press). All of the research to date addressing these accumulation processes has focused solely on self-fulfilling prophecies. Therefore, I first describe this body of literature, and then draw on attribution theory to discuss how these accumulation processes may operate with respect to perceptual biases.

Accumulation over time. Accumulation over time is a process in which the power of one perceiver’s self-fulfilling effect becomes increasingly stronger across subsequent time frames. For example, let's assume that teachers’ expectations are shown to have self-fulfilling effects on students’ achievement in the sixth grade. What happens to the students’ achievement in the seventh grade or eighth grade? Are teachers’ expectations having an even greater impact on students’ achievement as time passes? Self-fulfilling prophecies may accumulate over time through two distinct processes.

First, a perceiver’s inaccurate expectation, assessed at one point in time, may have a larger self-fulfilling effect on a target’s outcome repeatedly assessed at later points in time. The literature includes five studies that have tested whether self-fulfilling prophecies accumulate over time through this process (e.g., Jussim et al., 1996; Madon et al., in press; Rosenthal & Jacobson, 1968; Smith et al., 1999; West & Anderson, 1976). These studies all examined whether perceivers’ expectations assessed at an early point in time (e.g., teachers’ expectations about students in the 6th grade) predicted targets’ outcomes at multiple subsequent points in time (e.g., students’ outcomes in the 7th grade and 8th grade). Overall, the results of these studies tended disconfirm the accumulation over time hypothesis. Some studies found that rather than becoming larger over time, the self-fulfilling effects of perceivers’ expectations became weaker over time. For example, teachers’ expectations assessed in the 6th grade tended to predict students’ proximal achievement (e.g., 7th grade) more strongly than students’ distal achievement (e.g., 10th grade). Other studies found that the self-fulfilling effects of perceivers’ expectations remained stable over time. For example, mothers’ expectations about their children’s alcohol use assessed in the 6th grade predicted children’s proximal alcohol use (7th grade) as strongly as they predicted children’s distal alcohol use (e.g., 10th grade).

A second way that self-fulfilling prophecies can accumulate over time is if the self-fulfilling effects that arise from multiple expectations held by a single perceiver at different
points in time (e.g., a mother’s expectation about her child’s alcohol use assessed in the 6th and 7th grades) each independently influence a target’s outcome at a single later point in time (e.g., a child’s alcohol use in the 10th grade). The literature includes one study that has tested whether self-fulfilling prophecies accumulate over time through this process (i.e., Madon et al., in press). Consistent with the process, the results of this study indicated that the inaccurate expectations held by mothers at different points in time (e.g., 7th and 8th grades) each had an independent self-fulfilling effect on their children’s alcohol use assessed at a single later point in time (e.g., 10th grade). Accumulation occurred among children whose mothers consistently held either favorable or unfavorable inaccurate expectations about their child’s alcohol use year after year. Thus, these results suggest that the effects of an individual perceiver’s multiple and similar expectations can accumulate over time.

*Accumulation across perceivers.* Self-fulfilling prophecy effects may also accumulate across perceivers. In a course of a typical day a target may interact with multiple perceivers, each of may hold an inaccurate expectation for the target that could influence the target’s outcomes. The potential for accumulation occurs when perceivers hold inaccurate and similar expectations about the same target, such as when two perceivers both hold an inaccurate and unfavorable expectation about a specific target. Accumulation would occur when the combined self-fulfilling effects of these perceivers is larger than either perceiver’s self-fulfilling effect alone. Accumulation can occur through two distinct processes – concurrent and synergistic accumulation.

Concurrent accumulation is an additive process in which the similar expectations of two or more perceivers combine to have a greater self-fulfilling effect on a target’s outcomes than do any one of the expectations alone (Jussim et al., 1996). Jussim and colleagues (1996) first conceptualized concurrent accumulation based on expectancy effects in naturalistic contexts, in which the expectations that perceivers develop about a specific target are likely to be correlated. However, the process of concurrent accumulation can also be applied to experimental contexts in which perceivers’ expectations are manipulated and therefore, uncorrelated. Support for concurrent accumulation would be found if the total self-fulfilling effect of multiple perceivers exceeds any single perceiver’s individual self-fulfilling effect. Concurrent accumulation has only been addressed on a theoretical level. There is no
empirical research examining whether the self-fulfilling effects of multiple perceivers’
accumulate concurrently.

Synergistic accumulation is an interactive process in which the combined self-
fulfilling effect of multiple perceivers is larger than the sum of their individual self-fulfilling
effects (Madon et al., 2004). That is, one perceiver’s inaccurate expectation would, according
to the process, have a stronger self-fulfilling effect on a target’s future behavior when another
perceiver’s inaccurate expectation about that same target is similar (e.g., also unfavorable).
Support for this process has been found in one longitudinal study focusing on the self-
fulfilling influence of parents’ expectations on children’s alcohol use (Madon et al., 2004).
Mothers’ and fathers’ expectations about their child’s alcohol use were assessed, along with
several variables related to children’s risk factors for alcohol use. Twelve months later,
children’s alcohol use was re-assessed. According to synergistic accumulation, children’s
alcohol use would be the greatest when both mothers and fathers held inaccurate and similar
expectations about their children (i.e., both held favorable expectations or both held
unfavorable expectations). Consistent with this process, the largest predicted increase in
children’s future alcohol was found when both mothers and fathers held unjustifiably
unfavorable expectations about their children’s alcohol use. The results were not consistent
with a synergistic accumulation hypothesis when both mothers and father held favorable
expectations about their children’s alcohol use. The predicted increase in children’s later
alcohol use was the same, regardless of whether one parent or both parents held unjustifiably
favorable expectations about their children’s alcohol use. Thus, in this study, the self-
fulfilling effects of unfavorable expectations accumulated across perceivers but the self-
fulfilling effects of favorable expectations did not.

Although Madon et al.’s (2004) findings provide support for synergistic accumulation
with respect to unfavorable expectations, they relied on correlation data. As indicated
previously, findings based on correlational data are susceptible to the interpretation that a
third variable was inadvertently omitted from the analyses. If that occurred, then the self-
fulfilling effects reported in Madon et al.’s study were overestimated. That is, perhaps
parents’ expectations were most accurate when both mothers and fathers held unfavorable
expectations about their children’s alcohol use. Although Madon et al. made a strong
argument against such an interpretation, the only way to definitively rule out predictive
accuracy as an alternative to a self-fulfilling prophecy interpretation is to experimentally manipulate perceivers’ expectations.

Accumulation of perceptual biases. There has been no research examining whether perceptual biases accumulate across perceivers. However, research from the attribution literature suggests that perceptual biases may indeed accumulate across perceivers in much the same manner that self-fulfilling prophecy effects do. For example, the covariation model (Kelley, 1973) postulates that consensus can be a determinant in people’s perceptions of one another. Perceivers may be more confident in their judgment of a target when other perceivers appear to be in agreement with them. If multiple perceivers hold the same expectation about a particular target, then these perceivers may demonstrate an even greater perceptual bias than if they had been alone or with others holding a dissimilar expectation. In this case, perceivers become more certain of their judgments of the target because others appear to be in agreement with them. Thus, it seems plausible that the processes leading to cumulative self-fulfilling prophecy effects could also lead to cumulative perceptual biases. In addition, these biases could accumulate in either a concurrent or synergistic fashion. If perceptual biases were to accumulate in a concurrent manner, then the perceptual biases of multiple perceivers in combination would be larger than the perceptual bias of any single perceiver. If perceptual biases were to accumulate in a synergistic manner, then the combined perceptual biases of multiple perceivers would be larger than the sum of their individual perceptual biases.
Chapter III: An Experimental Test

Conceptual Overview

This study experimentally tested for the accumulation of self-fulfilling prophecy effects and perceptual biases by applying a modification of a paradigm developed by Snyder and Swann (1978). In the original paradigm, participants were randomly assigned to play the role of either a perceiver or a target. Some perceivers were given a fabricated personality profile of the target as a way to induce an inaccurate expectation in them. This personality profile indicated that the target was either an introvert or an extravert. Later, perceivers asked targets several pre-developed questions in attempt to find out if the targets' personality matched the fabricated personality profile they received earlier. The behavior of targets was assessed during the interaction by objective raters to determine if a self-fulfilling prophecy had occurred. The behavior of the targets was also evaluated after the interaction by perceivers to determine if a perceptual bias had occurred.

As predicted by Snyder and Swann (1978), targets labeled as extroverts were regarded as more extraverted by both objective raters and perceivers than were targets labeled as introverts. Snyder and Swann further hypothesized that perceivers would use biased hypothesis testing strategies to determine if their expectations were true. That is, they predicted that perceivers would seek out information that would confirm their originally inaccurate expectations. Consistent with this hypothesis, perceivers who believed that they were interacting with an extroverted target tended to ask the target questions that elicited an extroverted response. Likewise, perceivers who believed that they were interacting with an introverted target tended to ask the target questions that elicited an introverted response. The tendency for people to use biased hypothesis testing strategies during social interactions has been replicated in studies using different expectations (Snyder, Campbell, & Preston, 1982; Snyder & White, 1981; Zuckerman, Knee, Hodgins, & Miyake, 1995). Therefore, the type of questions asked by perceivers can serve as one mediating mechanism through which expectations are confirmed.

Overview of Experiment

The present experiment modified Snyder and Swann’s (1978) original paradigm in order to test whether self-fulfilling prophecy effects and perceptual biases accumulate across perceivers. Because the accumulation processes examined in this research requires multiple
perceivers, each of whom holds an inaccurate expectation about the same target, this experiment used two perceivers and one target as the unit of analysis. On the basis of previous research showing that unfavorable expectations accumulate across perceivers more than favorable ones (Madon et al., 2004), this study focused on the influence of unfavorable expectations on targets' behaviors and perceivers' impressions.

Participants were randomly assigned to one of three experimental conditions: a no hostile expectation condition, a single hostile expectation condition, and a double hostile expectation condition. These conditions manipulated both the type of expectation that perceivers held about a target as well as the similarity of their expectations. Specifically, in the no hostile expectation condition, neither perceiver received information about the target's personality. In the single hostile expectation condition, one perceiver received bogus information that the target was hostile whereas the other perceiver did not. In the double hostile expectation condition, both perceivers received bogus information that the target was hostile. Following the expectation manipulation, perceivers selected questions from a pool of questions to ask the target during an upcoming interaction. Targets' hostility following the interaction was measured to test for self-fulfilling prophecy effects. Perceivers' impressions of the targets' hostility and kindness following the interaction were measured to test for perceptual biases.

I tested two hypotheses relevant to self-fulfilling prophecies. First, I tested the hypothesis that perceivers would have a self-fulfilling influence on the targets' hostility. Results would support this hypothesis if targets' self-reported hostility following the interaction was higher in either the single or double hostile expectation conditions relative to the no hostile expectation condition. Second, I tested the hypotheses that self-fulfilling prophecy effects accumulate across perceivers in either a concurrent or synergistic manner. Results would support concurrent accumulation if targets’ self-reported hostility following the interaction was: a) higher in the double versus the single hostile expectation condition and b) higher in the single versus the no hostile expectation condition. Results would support synergistic accumulation if the difference between targets' self-reported hostility in the single versus the double hostile expectation condition was greater than the difference between targets' self-reported hostility in the no versus the single expectation condition.
I also tested two hypotheses relevant to perceptual biases. First, I tested the hypothesis that a perceptual bias would occur. Results would support a perceptual bias if perceivers in the single or the double hostile expectation conditions rated the target as more hostile and less kind than perceivers in the no hostile expectation condition after controlling for target’s actual hostility. Second, I tested the hypotheses that perceptual biases accumulate across perceivers in either a concurrent or synergistic manner. Results would support concurrent accumulation if perceivers’ ratings of the targets’ hostility and kindness following the interaction were: a) more negative in the double versus the single hostile expectation condition and b) more negative in the single versus the no hostile expectation condition. Results would support synergistic accumulation of perceptual biases if the difference between perceivers’ ratings of the targets’ hostility and kindness in the single versus the double hostile expectation conditions were greater than the difference between the no versus the single hostile expectation conditions.
Chapter IV: Method

Sample Size Estimation – Power Analysis

On the basis of 345 studies reviewed by Rosenthal and Rubin (1978) and a more recent review by Rosenthal (2002), the expected effect size in terms of a correlation coefficient was .3 \((d = .6)\). Multiple one-tailed t-tests were planned to analyze the data at the .05 levels; therefore, 35 sessions were required for each cell (Cohen, 1977). Because participants were run in same-sex groups of three, 105 participants were needed for each condition. This experiment has 3 cells. Therefore a total of 315 participants were required to detect an effect of this size \((r = .3)\).

Participants

Participants included 321 undergraduates (174 females, 147 males) recruited from the Psychology Department’s Research Participation Pool at Iowa State University. There were 107 sessions. Three participants of the same sex participated in each session, with each three-person group constituting the unit of analysis. In exchange for their participation, students earned credit in their psychology courses. Minors were not allowed to participate in this study.

Design

Two participants in each group were randomly assigned to play the role of a perceiver and one was randomly assigned to play the role of a target. In addition, each three-person group was randomly assigned to one of three conditions: a no hostile expectation condition, a single hostile expectation condition, and a double hostile expectation condition. In the no hostile expectation condition, neither perceiver received information about the target’s personality. In the single hostile expectation condition, one perceiver received bogus information that the target was hostile, whereas the other perceiver did not. In the double hostile expectation condition, both perceivers received bogus information that the target was hostile. Thus, this design manipulated the type of expectation that was induced in perceivers (i.e., not hostile versus hostile) and the similarity of perceivers’ expectations for the target (i.e., not similar versus similar).

Materials and Instruments

Questions. A total of 32 questions were developed by experimenters, including 16 that were intended to elicit a non-hostile and 16 that were intended to elicit a hostile response
from targets (see Appendix A). An example of a non-hostile question is “What do you see as
being a good aspect of people everywhere?” and an example of a hostile question is “Imagine
someone spread a rumor about you, what would you do to get back at them?” These
questions were selected from a larger pool of questions that were presented to participants in
two preliminary studies. In one preliminary study (n = 38), participants answered a subset of
the questions and trained judges then evaluated their answers to determine whether the
question had elicited the anticipated response – i.e., a non-hostile response or a hostile
response. Questions that did not elicit the intended response were discarded. In the other
preliminary study (n = 36), participants were induced with either a non-hostile or hostile
expectation about a target and asked to select questions from the larger pool to ask the target
in a bogus upcoming discussion task. Questions that were never selected and questions that
were selected equally across the expectancy conditions were discarded. The 32 questions
used in the main experiment were printed on index cards and laminated. Before each session,
the index cards were separated by type (i.e., non-hostile and hostile), shuffled separately, and
then each pile was split into two new piles, one for each perceiver. The index cards were
reshuffled at each session so that each perceiver received a unique set of eight non-hostile
questions and eight hostile questions presented in a random order.

Assessing mood. The Short Form of the Profile of Mood States (POMS-SF) was used
to measure psychological distress (Shacham, 1983). The POMS-SF is a briefer version of the
Profile of Mood States that was developed in 1981 (McNair, Lorr, & Droppleman, 1981).
The POMS-SF consists of a list of 26 adjectives (see Appendix B). Participants indicated the
degree to which each adjective currently describes how they are feeling using a Likert scale
with 1 (not at all) and 5 (extremely) as anchor points. Targets’ mood was assessed twice, once
before the anticipated interaction (pre-mood) and then again after the interaction (post-
mood). The items were split into the following four subscales to measure targets’ pre- and
post-mood: Depression-Dejection (α = .90, .87), Vigor-Activity (α = .75, .80), Tension-
Anxiety (α = .76, .79), and Anger-Hostility (α = .78, .80).

Assessing trait hostility. The Cook-Medley Hostility Inventory was used to assess
trait hostility (Cook & Medley, 1954). The trait hostility scale consists of 50 true-false items
with higher scores indicating greater hostility (see Appendix C). Individuals scoring high on
trait hostility are likely to exhibit anger and hostility-related changes during frustrating
situations. This scale correlates higher with self-reported anger \((r=.61)\) than with self-reported anxiety \((r=.26)\) or depression \((r=.38)\), demonstrating relatively good convergent and discriminate validity (Smith & Frohm, 1985). The trait hostility scale has been shown to have good stability over a 4-year interval, \(r=.84\) (Shekelle, Gale, Ostfeld, & Paul, 1983). Smith and Frohm (1985) also reported Chronbach’s coefficients ranging from .80 to .84 for men and women. In the current study, only targets completed the trait hostility scale. The reliability coefficient for targets’ trait hostility was \(\alpha = .70_{\text{female}}, .71_{\text{male}}\).

Assessing impressions. Impression formation questionnaires were constructed to assess targets’ perceptions of themselves and perceivers’ impressions of targets following the anticipated interaction. The impression formation questionnaire consisted of 31 adjectives that asked participates to rate the extent to which each adjective described the target using a Likert scale with 1 \((\text{not at all})\) and 10 \((\text{extremely})\) as anchor points (see Appendix D). The following four subscales were created: Awareness \((\alpha = .90_{\text{perceiver report}}, .75_{\text{target self-report}})\), Sociability \((\alpha = .85_{\text{perceiver report}}, .87_{\text{target self-report}})\), Hostility \((\alpha = .89_{\text{perceiver report}}, .79_{\text{target self-report}})\), and Kindness \((\alpha = .90_{\text{perceiver report}}, .79_{\text{target self-report}})\).

Procedures

Participants were run in same-sex groups with three individuals per group. Participants came into the laboratory and were asked to choose one of three cards. The cards assigned them to play the role of either an interviewer (perceiver) or the respondent (target). These cards were laying face down leaving participants unable to see which card indicated which role. Two participants were assigned to play the role of perceiver and one was assigned to play the role of a target. After selecting a card, participants were immediately asked to wait in separate rooms, thereby avoiding the chance that they would form impressions about one another before the expectation manipulation had been administered. Once all participants had been assigned a role to play, they were asked to read and sign a consent form. Participants were then asked to follow the instructions provided by MediaLab. MediaLab instructed all participants to complete surveys that assessed their mood and to answer several filler questions (e.g., Have you ever been interviewed before?). In addition to these measures, targets also completed a survey that assessed their trait hostility. All of these surveys were completed on a computer.
Next, perceivers received a bogus profile relevant to the personality trait of hostility. The profile described three personality types: a hostile personality type, an average personality type, and a friendly personality type. There were two versions of the profile that served to manipulate perceivers’ expectations about the targets’ hostility. Both versions described the same personality types (i.e., friendly, average, and hostile), but only in one version was the target identified as fitting the hostile personality type. Specifically, in one version of the profile, no information was given about the target’s personality (see Appendix E). This profile, subsequently referred to as the blank profile, was given to both perceivers in the no hostile expectation condition and to one of the perceivers in the single hostile expectation condition. The other version of the profile indicated that the target was classified as having a hostile personality (see Appendix F). This profile, subsequently referred to as the hostile profile, was given to both perceivers in the double hostile expectation condition and to one of the perceivers in the single hostile expectation condition.

All participants were told that the purpose of this study was to investigate how people come to understand one another in interview-type situations and that they would be interacting with one another in an upcoming interview. Perceivers given the blank profile were told that their goal during the interview was to determine which personality type (i.e., hostile, average, or friendly) best characterizes the target. Perceivers given the hostile profile were told that their goal during the interview was to determine whether the target does in fact match the hostile personality type.

Next, each perceiver was given a unique set of 16 questions and instructed to select seven to ask the target in the discussion task. While perceivers were choosing their questions, the target was given all 32 questions to look through before the interaction. Targets were told perceivers would be choosing a few to ask them and they should try to answer each question to the best of their ability. However, targets were also told that if they were uncomfortable with any question they had the right to refuse to answer.

Next participants were led into the interaction room. Research assistants who were blind to condition gave participants their instructions and then left the room. During the interaction, perceivers alternately asked the target seven questions; thus, each target answered a total of 14 questions. Upon completion of the interaction, the research assistants returned to the room and escorted participants to their original rooms. Using MediaLab,
targets then completed the mood survey a second time and all participants answered questions that assessed their impressions of the other participants. Following the completion of these questions, demographic questions and suspicion checks were administered. Suspicion checks were used to probe for any participants who suspected the true purpose of the experiment and to determine if participants knew one another prior to participating. Additionally, interviewers answered a question that served as a check of the expectancy manipulation. Lastly, participants were debriefed and thanked for their participation. Participation in this study took approximately 50 minutes.
Chapter V: Results

Preliminary Analyses

Overview. Four sets of preliminary analyses were performed. The first set of preliminary analyses was conducted to evaluate whether there were any participant errors that occurred during the sessions, whether participants had prior knowledge of one another before the experiment, and the degree to which participants indicated suspicion about the experimental materials or study hypotheses. The second set of preliminary analyses was conducted to determine if targets' pre-mood and trait hostility scores and perceivers’ impressions of targets differed based on gender. The third set of preliminary analyses was conducted to test whether there were any differences in targets’ pre-mood and trait hostility scores between conditions before the expectation manipulation was administered. The fourth set of preliminary analyses was conducted to determine if the expectation manipulation was effectively administered.

Evaluation of Session. Session information was evaluated to determine whether there were any errors made by participants that required their removal. This evaluation revealed that one perceiver chose the wrong number of questions to ask the target and that five perceivers and targets indicated mutual knowledge of one another. The level of suspicion of participants was also evaluated by examining their open-ended responses to the suspicion check items (see Appendix G). There were four sessions in which at least one participant expressed a high level of suspicion. Overall, evaluation of the session information revealed a total of 10 sessions that required removal from the data set including two in the no hostile expectation condition, three in the single hostile expectation condition, and five in the double hostile expectation condition (two male sessions and eight female sessions). These sessions were not used in any of the analyses. In order to maintain the desired level of statistical power, these 10 sessions were replaced with 10 new sessions containing naïve participants.

Gender differences. Three t-tests were performed to test for differences between men’s and women’s pre-mood scores, trait hostility scores, and responds to the impression formation questionnaires. With respect to pre-mood scores, results indicated that men reported being more tense before the interaction ($M = 1.94$) than did women ($M = 1.65$), $t(105) = 2.93, p = .004, d = .57$ (Table 1).
Table 1.
Correlations among targets’ pre-mood scores and trait hostility scores. Means, standard deviations, and t-statistics presented separately for women (N = 58) and men (N = 49).

<table>
<thead>
<tr>
<th>Pre-Mood Subscales</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Depression-Dejection</td>
<td>-.35**</td>
<td>.39***</td>
<td>.71***</td>
<td>.26**</td>
<td></td>
</tr>
<tr>
<td>(2) Vigor-Activity</td>
<td>-0.08</td>
<td>-.20*</td>
<td>-.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Tension-Anxiety</td>
<td></td>
<td>.36***</td>
<td>.27**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Anger-Hostility</td>
<td></td>
<td></td>
<td></td>
<td>.25**</td>
<td></td>
</tr>
<tr>
<td>(5) Trait Hostility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>1.27</td>
<td>2.52</td>
<td>1.65</td>
<td>1.18</td>
<td>19.03</td>
</tr>
<tr>
<td>SD</td>
<td>0.34</td>
<td>0.74</td>
<td>0.41</td>
<td>0.38</td>
<td>5.47</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>1.36</td>
<td>2.53</td>
<td>1.94</td>
<td>1.24</td>
<td>23.49</td>
</tr>
<tr>
<td>SD</td>
<td>0.62</td>
<td>0.70</td>
<td>0.60</td>
<td>0.43</td>
<td>6.01</td>
</tr>
</tbody>
</table>

| t-value              | 0.93       | 0.07       | 2.93**     | 0.78       | 4.01***    |

Note. df = 105.
*p < .05. **p < .01. ***p < .001.

Men also had higher mean trait hostility scores ($M = 23.49$) than did women ($M = 19.03$), $t(105) = 4.01, p < .001, d = .78$. Results based on targets’ impressions of themselves indicated that men rated themselves as more hostile ($M = 3.41$) and less sociable ($M = 6.70$) than did women ($M = 2.87_{hostile}, M = 7.53_{sociable}$), (Table 2). Results based on perceivers’ impressions of the targets indicated that men were rated as more hostile ($M = 3.03$), less kind ($M = 6.30$), less aware ($M = 6.40$), and less sociable ($M = 5.34$) than were women ($Ms = 2.60_{hostile}, 6.85_{kindness}, 7.08_{awareness}, 6.14_{sociable}$), (Table 2).
Table 2.
Perceivers’ ratings of the target and targets’ ratings of themselves. Means, standard deviations, and t-statistics presented separately for women and men.

<table>
<thead>
<tr>
<th>Impression Formation Ratings</th>
<th>Perceivers’ Ratings of Target</th>
<th>Targets’ Ratings of Themselves</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male Target</td>
<td>Female Target</td>
</tr>
<tr>
<td>Awareness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>6.40</td>
<td>7.08</td>
</tr>
<tr>
<td>SD</td>
<td>1.03</td>
<td>1.19</td>
</tr>
<tr>
<td>Sociable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>5.34</td>
<td>6.14</td>
</tr>
<tr>
<td>SD</td>
<td>1.05</td>
<td>1.18</td>
</tr>
<tr>
<td>Hostility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>3.03</td>
<td>2.60</td>
</tr>
<tr>
<td>SD</td>
<td>1.05</td>
<td>0.88</td>
</tr>
<tr>
<td>Kindness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>6.30</td>
<td>6.85</td>
</tr>
<tr>
<td>SD</td>
<td>1.43</td>
<td>1.15</td>
</tr>
</tbody>
</table>

Note. df = 105. *p < .05. **p < .01. ***p < .001.

Condition differences prior to expectancy manipulation. Two separate analyses of variance (ANOVAs) were conducted to determine if targets’ pre-mood scores and targets’ trait hostility differed by condition. The independent variable in these analyses was the expectation condition (no hostile vs. single hostile vs. double hostile). The dependent variables were targets’ pre-mood scores and targets’ trait hostility scores. Results indicated that there was a slight non-significant tendency for targets in the no hostile expectation condition to have higher pre-mood anger scores (M = 1.33) than those in either the single hostile (M = 1.13) or the double hostile expectation (M = 1.15) conditions, F(2, 104) = 2.63, p = .077; ds ≤ .48. Results indicated that targets’ trait hostility did not differ by condition, (Ms = 20.66 no hostile, 21.08 single hostile, 21.46 double hostile), F(2, 104) = .15, p = .859, ds ≤ .13.

Expectancy manipulation check. Two analyses were performed to examine the effectiveness of the expectation manipulation. First, frequencies were performed to examine whether any perceivers incorrectly classified the targets’ personality. Results indicated that of those participants that received a blank profile (n = 105), one participant indicated that he or she had received a profile classifying the target as having a hostile personality. Of those participants that received a hostile profile (n = 107), two participants failed to indicate that
they had received a profile classifying the target as having a hostile personality. Analyses were conducted with and without these participants. The pattern of results remained the same and these participants were retained in all subsequent analyses.

Second, a t-test was performed to examine whether perceivers given a hostile expectation asked more hostile questions than perceivers who were not given a hostile expectation. Whether or not perceivers received a hostile expectation served as the independent variable and the mean number of hostile questions perceivers chose to ask targets during the interaction served as the dependent variable. Because perceivers chose their questions before interacting with each other, this analysis treated each perceiver as an independent observation. Results indicated that perceivers given a hostile expectation asked more hostile questions ($M = 4.23$) than those given no hostile expectation ($M = 3.53$), $t(212) = 3.55, p < .001, d = .49$. The high number of perceivers who correctly classified the targets’ personality coupled with perceivers’ tendency to ask significantly more hostile questions when given a hostile expectation indicates that the expectation manipulation was effective.

**Main Analyses**

**Overview.** Analyses were performed to test for self-fulfilling prophecy effects, perceptual biases, the accumulation of these processes, and mediation. Gender was included in all analyses as an independent variable because preliminary analyses indicated significant differences between men’s and women’s pre-mood scores, trait hostility scores, and impression formation scores. Targets’ pre-mood scores and trait hostility scores served as covariates. These covariates were included to control for targets’ actual hostility independent of the expectation manipulation.

**Self-fulfilling prophecy effects.** A 2 (Gender: men versus women) x 3 (Condition: no hostile expectation, single hostile expectation, and double hostile expectation) ANCOVA was conducted to test the hypothesis that targets would behaviorally confirm perceivers’ inaccurate expectations about them. The dependent variable was targets’ post-anger scores. Targets’ pre-mood scores and trait hostility scores served as covariates. Results would support a self-fulfilling prophecy effect if targets’ mean post-anger scores were significantly lower in the no hostile expectation condition versus those scores in either the single or the double hostile expectation conditions. Results indicated that there was a significant difference between targets’ mean post-anger scores based on condition, $F(2, 96) = 3.78, p =$
.026, $ds \leq .71$. However, contrary to the hypothesis, the highest level of anger was reported by targets in the no hostile expectation condition (Figure 1). Additionally, there was a main effect of gender, in which men reported higher anger scores ($M = 1.21$) than women ($M = 1.10$), $F(1, 96) = 3.94, p = .05, d = .56$. A second ANCOVA also testing for a self-fulfilling prophecy was conducted. This analysis was identical to the one described above except that it used targets' self-reported impressions of their own hostility following the interaction as the dependent variable. Results indicated that there was not a significant difference between targets' mean impression ratings of their own hostility based on condition, $F(2, 96) = 2.14, p = .123, ds < .42$. Because a self-fulfilling prophecy was not found, analyses testing whether self-fulfilling prophecy effects accumulated across perceivers were not performed.

Figure 1.
Targets' mean post-anger scores as a function of expectation condition.

**Perceptual bias.** Although targets did not confirm perceivers' hostile expectations by reporting an angrier mood, there is still the potential for perceivers to believe that their expectations were confirmed. Two separate 2 (Gender: men versus women) x 3 (Condition: no hostile expectation, single hostile expectation, and double hostile expectation) ANOVAs
were conducted to test for a perceptual bias. Targets’ pre-mood scores and trait hostility scores served as covariates. Perceivers’ average impression formation ratings of the targets’ hostility and kindness served as the dependent variables. Results would support a perceptual bias if perceivers in the double or single hostile expectation condition rated the target as more hostile and less kind than perceivers in the no hostile expectation condition.

Consistent with a perceptual bias, analyses revealed that there was a significant difference in perceivers’ impressions of targets’ hostility and kindness based on condition, \( F(2, 96) > 7.16, p < .001, ds > .18 \). Contrasts revealed that targets in the double hostile expectation condition were rated as more hostile (\( M = 3.35 \)) and less kind (\( M = 5.85 \)) than targets in either the single hostile (\( M_{\text{hostility}} = 2.60; M_{\text{kindness}} = 6.95 \)) or the no hostile (\( M_{\text{hostility}} = 2.43; M_{\text{kindness}} = 7.04 \)) expectation conditions.

Table 3.
Perceivers’ average impression ratings of the targets’ hostility and kindness. Means, standard deviations, and \( F \)-statistics presented for each condition.

<table>
<thead>
<tr>
<th>Impression Formation Ratings</th>
<th>Condition</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Hostile Expectation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hostility</td>
<td>M</td>
<td>2.43</td>
<td>2.60</td>
<td>3.35</td>
<td>7.16***</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>0.84</td>
<td>0.84</td>
<td>1.01</td>
<td></td>
</tr>
<tr>
<td>Kindness</td>
<td>M</td>
<td>7.04</td>
<td>6.95</td>
<td>5.85</td>
<td>10.19***</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>1.24</td>
<td>1.34</td>
<td>1.00</td>
<td></td>
</tr>
</tbody>
</table>

Note. \( df = 2, 96 \)
* \( p < .05 \). ** \( p < .01 \). *** \( p < .001 \). 

In addition, two paired samples t-tests were conducted to examine whether perceivers induced with different expectations about the same target formed different impressions of that target’s hostility and kindness following the interaction. These analyses focused exclusively on responses provided by perceivers who had been assigned to the single hostile expectation condition because it was only in this condition that perceivers holding dissimilar expectations interacted with the same target. Results indicated that perceivers induced with a hostile expectation rated the targets as marginally significantly more hostile (\( M = 2.34 \)) and
significantly less kind ($M = 6.47$) than perceivers with no hostile expectation ($M_{\text{hostility}} = 2.85$; $M_{\text{kindness}} = 7.42$), $t(34)_{\text{hostility}} = 1.97, p = .058, d = .48$, $t(34)_{\text{kindness}} = 2.74, p = .010, d = .56$, (Table 4). These findings indicate that a perceptual bias was occurring even when perceivers interacted with the same target. The results showing that perceptual biases occurred in these data warrant further investigation into the accumulation of perceptual bias effects.

Table 4.
Means and standard deviations for perceivers’ impressions of the targets’ hostility and kindness presented for each condition.

<table>
<thead>
<tr>
<th>Condition</th>
<th>No Hostile Expectation</th>
<th>Single Hostile Expectation</th>
<th>Double Hostile Expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impression Formation Ratings</td>
<td>Both Perceivers</td>
<td>Perceiver with No Hostile Expectation</td>
<td>Perceiver with Hostile Expectation</td>
</tr>
<tr>
<td>Hostility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>2.43</td>
<td>2.34</td>
<td>2.85</td>
</tr>
<tr>
<td>SD</td>
<td>0.84</td>
<td>0.93</td>
<td>1.33</td>
</tr>
<tr>
<td>Kindness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>7.04</td>
<td>7.42</td>
<td>6.47</td>
</tr>
<tr>
<td>SD</td>
<td>1.24</td>
<td>1.44</td>
<td>1.91</td>
</tr>
</tbody>
</table>

Note. In the single hostile expectation condition, descriptive statistics are presented separately for those perceivers with a hostile expectation and those without a hostile expectation.

Accumulation of perceptual biases. A stepwise regression analysis was conducted to test for concurrent and synergistic accumulation of perceptual biases. The first step included targets’ pre-mood scores and trait hostility scores to control for targets’ actual hostility. The second step tested for concurrent accumulation of perceptual biases. The final step tested for synergistic accumulation of perceptual biases.

To test these hypotheses, two new impression formation variables were created, one pertaining to perceivers’ impressions of the targets’ hostility and another pertaining to perceivers’ impressions of the targets’ kindness. In the two conditions in which perceivers’ expectancies were similar (i.e., no hostile expectation condition and double hostile expectation condition) impression ratings of the targets’ hostility were averaged across perceivers, as were their impression ratings of the targets’ kindness. This is because the
session is the unit of analyses. However, in the single hostile expectation this is not appropriate because perceivers’ expectancies are dissimilar and without an expectation of hostility, no perceptual bias can occur. Therefore, for this condition, perceivers’ impression ratings of the targets’ hostility and kindness were based on the impressions of only those perceivers who received a hostile expectation. Thus, the new impression formation variables reflected the average hostility and kindness ratings of both perceivers in the no hostile expectation condition, the one perceiver in the single hostile expectation condition induced with a hostile expectation, and the average ratings of both perceivers in the double hostile expectation condition. The new impression formation ratings of targets’ hostility and kindness served as dependent variables.

The first step in the analysis predicted perceivers’ impressions of the targets’ hostility and kindness from the targets’ pre-mood scores and trait hostility scores. Results indicated that targets’ pre-anger scores significantly predicted perceivers’ impressions of targets’ hostility, $\beta = -.36, p = .010$. However, they did so in a direction opposite than expected. Targets who reported higher pre-anger scores were rated as less hostile by perceivers. There were no other significant effects (all $\beta$'s $\leq .22, p \geq .097$), see Table 5.

The second step in the analysis tested for concurrent accumulation of perceptual biases by adding the number of perceivers holding a hostile expectation (i.e., 0, 1, and 2) to the model. Results would support concurrent accumulation if perceivers’ impressions of the targets’ hostility increased, and their impressions of the targets’ kindness decreased, in a linear fashion as the number of perceivers’ holding a hostile expectation increased. Consistent with this expected pattern, ratings of the targets’ hostility were positively associated with the number of perceivers holding a hostile expectation, $\beta = .28, F(6, 100) = 2.99, p = .010, (R^2 = .07, F(1, 100) = 8.32, p = .005)$ and ratings of the targets’ kindness were negatively associated with the number of perceivers’ holding a hostile expectation, $\beta = -.31, F(6, 100) = 3.48, p = .004, (R^2 = .09, F(1, 100) = 10.73, p = .001)$. As shown in Figure 2, perceivers in the no hostile expectation condition rated targets as the least hostile ($M = 2.43$) and most kind ($M = 7.04$); perceivers in the double hostile expectation rated targets as the most hostile ($M = 3.35$) and least kind ($M = 5.85$); and perceivers in the single hostile expectation rated targets’ hostility ($M = 2.85; ds \geq .40$) and kindness ($M = 6.47; ds \geq .54$) in
between these extremes. These findings support the hypothesis that perceptual biases accumulated across perceivers in a concurrent fashion.

Figure 2.

Perceivers' mean impression ratings of targets as a function of expectation condition.

![Bar chart showing Perceivers' Ratings of Targets' Hostility & Kindness across different expectation conditions.]

The third step in the analysis tested for synergistic accumulation of perceptual biases by adding an interaction term to the model. The interaction term was created by squaring the number of perceivers holding a hostile expectation in each condition. This process resulted in the following values: 0 in the no hostile expectation condition (i.e., $0 \times 0$), 1 in the single hostile expectation condition (i.e., $1 \times 1$), and 4 in the double hostile expectation condition (i.e., $2 \times 2$). Results would support synergistic accumulation if the interaction term accounted for additional variance in perceivers' impressions of the targets' hostility and kindness above what was accounted for by the variables in Step 2. Contrary to this expected pattern, however, results indicated that the interaction term did not account for a significant proportion of variance beyond what was accounted for by the lower order terms (i.e., targets' pre-mood and trait hostility scores, number of perceivers holding a hostile expectation), $R^2 \Delta$
hostility = .000, $F(1, 99) = .05, p = .826, R^2$ kindness = .001, $F(1, 99) = .16, p = .691$. These results indicate that perceptual biases were not accumulating across perceivers in a synergistic fashion.

Table 5.

Results of the stepwise regression analyses testing for concurrent and synergistic accumulation of perceptual biases.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Perceivers’ Impressions of Targets’ Hostility</th>
<th>Perceivers’ Impressions of Targets’ Kindness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Base model</td>
<td>$R^2 = .08$</td>
<td>$R^2 = .08$</td>
</tr>
<tr>
<td>Pre-depression</td>
<td>$\beta = .21, SE = .70, p = .141$</td>
<td>$\beta = .05, SE = .44, p = .707$</td>
</tr>
<tr>
<td>Pre-liveliness</td>
<td>$\beta = -.08, SE = .34, p = .426$</td>
<td>$\beta = .17, SE = .21, p = .097$</td>
</tr>
<tr>
<td>Pre-tense</td>
<td>$\beta = .07, SE = .16, p = .482$</td>
<td>$\beta = -.15, SE = .30, p = .152$</td>
</tr>
<tr>
<td>Pre-anger</td>
<td>$\beta = -.36, SE = .39, p = .010$</td>
<td>$\beta = .17, SE = .51, p = .219$</td>
</tr>
<tr>
<td>Trait Hostility</td>
<td>$\beta = .20, SE = .20, p = .351$</td>
<td>$\beta = -.16, SE = .02, p = .118$</td>
</tr>
<tr>
<td>Step 2: Concurrent effects</td>
<td>$R^2\Delta = .07$</td>
<td>$R^2\Delta = .09$</td>
</tr>
<tr>
<td>Number of perceivers holding a</td>
<td>$\beta = .28, SE = .13, p = .005$</td>
<td>$\beta = -.31, SE = .17, p = .001$</td>
</tr>
<tr>
<td>hostile expectation (i.e., 0, 1, and 2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3: Synergistic effects</td>
<td>$R^2\Delta = .00$</td>
<td>$R^2\Delta = .00$</td>
</tr>
<tr>
<td>Number of perceivers holding a</td>
<td>$\beta = .08, SE = .23, p = .826$</td>
<td>$\beta = -.14, SE = .30, p = .691$</td>
</tr>
<tr>
<td>Hostile expectation squared</td>
<td>(i.e., 0, 1, and 4)</td>
<td></td>
</tr>
</tbody>
</table>

Mediation. Additional analyses examined the underlying mechanism through which perceptual biases and the accumulation of perceptual biases occurred. These analyses specifically tested whether the total number of hostile questions that targets were asked during the interaction mediated the influence of perceivers’ expectations on their impressions of the targets’ hostility and kindness. Analyses were conducted using procedures delineated by Baron & Kenny (1986). Specifically, in separate analyses, perceivers’ impression ratings of the targets’ hostility and kindness were regressed on the number of perceivers holding a hostile expectation (i.e., 0, 1, or 2). This analysis is identical to Step 2 in the regression analyses described earlier, the results of which are presented in Table 5. Second, the total number of hostile questions that targets were asked during the interaction was regressed on the number of perceivers holding a hostile expectation. Third, perceivers’ ratings of the targets’ hostility and kindness were regressed on the total number of hostile questions that
targets were asked during the interaction. Fourth, the perceivers’ impressions of the targets’ hostility and kindness were regressed on both the number of perceivers holding a hostile expectation and on the number of hostile questions that targets were asked during the interaction.

Results indicated that the number of perceivers holding a hostile expectation influenced the total number of hostile questions that targets were asked during the interaction, $\beta = .24$, $F(6, 100) = 2.21$, $p = .048$. Results also indicated that as the number of hostile questions asked increased, perceivers’ ratings of the targets’ hostility increased, $\beta = .23$, $F(6, 100) = 2.49$, $p = .028$, and perceivers’ ratings of the targets’ kindness marginally decreased, $\beta = -.17$, $F(6, 100) = 2.10$, $p = .060$. Lastly, results indicated that the relation between the number of perceivers holding a hostile expectation and perceivers’ ratings of the targets’ hostility and kindness were not substantially reduced when the number of hostile questions asked by perceivers was included in the analysis (Hostility: $\beta$s = .28 vs. .24, $ps \leq .01$; Kindness: $\beta$s = -.31 vs. -.29, $ps < .01$). Thus, these analyses indicate that perceivers’ expectations influenced their impressions of the targets’ hostility and kindness, but that the number of hostile questions that perceivers asked targets during the interaction did not mediate this effect to any meaningful degree.
Chapter VI: Discussion

This study examined two forms of expectancy confirmation: self-fulfilling prophecies and perceptual biases. The primary goal of this research was to test whether the effects of these expectancy confirmation processes accumulated across perceivers in either a concurrent or synergistic manner. These accumulation processes were examined in an experiment that manipulated both the type and similarity of expectations that perceivers held about a target. Results indicated that perceivers' expectations did not have a self-fulfilling influence on targets' behavior, thereby precluding the possibility that self-fulfilling prophecy effects could accumulate. However, results did support a perceptual bias and the accumulation of this process. Following a brief interaction, perceivers' impressions of targets were more negative as the number of perceivers holding a hostile expectation increased. That is, perceivers' impressions of targets were the most negative when both perceivers thought they would be interacting with a hostile target (i.e., double hostile expectation condition). Thus, these results indicated that perceptual biases accumulated across perceivers.

The self-fulfilling prophecy process is one means by which people’s expectations can shape reality. However, research has shown that self-fulfilling prophecy effects are typically small. Nonetheless, if these effects accumulate, then self-fulfilling prophecies could have a large impact on people’s behaviors. This experiment tested that possibility, but failed to find any support for it. Perceivers induced with a hostile expectation did not influence targets’ behavior in a manner consistent with their expectations. In fact, targets interacting with perceivers that did not hold a hostile expectation about them were actually angrier after the interaction than targets interacting with perceivers who held a hostile expectation. Thus, this experiment found no evidence for a self-fulfilling prophecy effect or accumulation of such effects.

Although the findings of this study did not support cumulative self-fulfilling prophecy effects, such a process may still occur in other contexts and with respect to different expectations and outcomes. Indeed, Madon and colleagues (2004) showed that mothers’ and fathers’ self-fulfilling influences did accumulate across one another to have a relatively powerful impact on their children’s subsequent alcohol use. Replication of these results is necessary before general statements about the accumulation of self-fulfilling prophecy effects can be made.
Perceptual Biases

Although targets did not behaviorally confirm perceivers’ hostile expectations, there was still the potential for perceivers to believe that their expectations had been confirmed. Analyses that tested this possibility indicated the perceivers induced with a hostile expectation about the target rated the target as more hostile and less kind than perceivers with no hostile expectation. One way to interpret these findings is that perceivers’ impressions were influenced by perceptual biases. Even though targets did not confirm perceivers’ expectations about them by becoming hostile, perceivers still believed that their expectations had been confirmed.

It is also possible, however, that rather than reflecting perceptual biases, the observed findings instead reflect a tendency among perceivers to report impressions that were in line with the expectations they had been initially given. That is, perhaps perceivers did not actually believe that targets had confirmed their expectations, but reported that they did, so that their impressions appeared consistent with the expectations they had been given at the outset. The data would support this alternative interpretation if perceivers’ impressions of the target’s hostility and kindness in the double hostile expectation condition did not differ from the impressions formed by perceivers given a hostile expectation in the single hostile expectation condition. However, the data did not conform to this pattern. Despite the fact that the hostile expectation was the same in the single and double expectation conditions, perceivers in the double expectation condition rated the target as more hostile and less kind than perceivers who were given a hostile expectation in the single expectation condition. Specifically, as the number of perceivers holding a hostile expectation increased from 0 to 1 to 2, perceivers’ impressions of the targets’ hostility increased and their impressions of the targets’ kindness decreased. These findings indicate that perceivers did not simply report the expectations they had been given initially and, thus, lend additional support to the interpretation that perceptual biases occurred in these data.

In addition, these findings also provide evidence that perceptual biases accumulated across perceivers in a concurrent fashion. Perceivers more strongly believed that their hostile expectations had been confirmed when two perceivers held a hostile expectation about the same target than when only one did. There are two possible explanations that can account for the accumulation of perceptual biases. First, perceptual biases may have accumulated due to
perceivers’ tendency to use a biased hypothesis testing strategy. I tested this possibility by examining whether the perceptual biases and the accumulation of perceptual biases were due to the number of hostile questions that targets were asked during the interaction. Results indicated that perceivers with a hostile expectation did ask more hostile questions compared to perceivers with no hostile expectation. However, this difference was not meaningful enough to suggest that the number of hostile questions asked served as a mediator in the accumulation process found in this study.

The second possible explanation for the accumulation of perceptual biases may be consensus. Research on attribution theories have suggested that consensus may be one factor that influences whether or not people’s behaviors are interpreted as being indicative of depositional qualities (Kelley, 1973). People consider the opinions of others in determining whether their own opinions are correct and people have greater confidence in their judgments when others appear to be in agreement with them. Results were consistent with these ideas. Perceivers rated the target more negatively when other perceivers held similar hostile expectations about the same target than when they had dissimilar expectations or no expectations about the target. This may be the reason that perceptual biases were stronger when two perceivers were holding hostile expectations than when only one perceiver was holding a hostile expectation.

The tendency for perceivers to believe their expectations have been confirmed even when they had not been has several important implications. First, perceptual biases may influence the future behaviors of perceivers. For example, perceivers’ impressions affect how they treat targets in subsequent interactions, leaving open the possibility that perceivers may have self-fulfilling effects on targets’ behavior in the future. Second, both during the interaction and after the interaction perceptual biases can restrain the opportunities targets have to disconfirm perceivers’ expectations of them. If a perceiver holds a negative expectation about a target and leaves with the impression that that expectation has been confirmed, then the perceiver may avoid future interactions with the target (Harris, 1993). Indeed, people often avoid interactions with stigmatized group members (Snyder, Kleck, Strenta, & Mentzer, 1979). This would not allow the opportunity for the target to display any disconfirming information that may alter perceivers’ expectancies through additional interactions. Thus, the perceivers’ expectations about the target will remain unchanged. My
data suggests that these effects are exacerbated when perceivers share similar expectations about the same individual. Future research may want to examine whether perceptual biases also accumulate across perceivers when perceivers’ expectations are based on social stereotypes.

**Mediation**

Typically perceivers’ develop a strategy in which they look for confirming rather than disconfirming evidence, a process referred to as biased hypothesis testing (Snyder, Campbell, & Preston, 1982; Snyder & Swann, 1978; Snyder & White, 1981; Zuckerman, et al., 1995). The results of this research were consistent with this process. Perceivers with a hostile expectation tended to ask a greater number of hostile questions than perceivers with no hostile expectation. Furthermore, analyses indicated that as the number of perceivers holding a hostile expectation increased, so did the number of hostile questions asked. However, as indicated previously, it does not appear that the questions were mediating the perceptual bias process.

**Limitations**

There are several limitations of this research that warrant discussion. First, in contrast to previous research, the pattern of results obtained in this experiment indicated that a self-fulfilling prophecy effect did not occur. There are several possible explanations that may account for this finding. First, targets knew prior to the first assessment of their mood that two other participants would interview them, a situation that is potentially anxiety provoking. Targets’ pre-interaction mood may, therefore, have become negative at the outset which may have reduced the potential for perceivers’ expectations to have any additional negative influence. Additionally, it is likely that targets did not report a more negative mood after the interaction because they were so relieved that it was over. Indeed, results showed that, regardless of condition, targets were less depressed, more lively, less tense, and less angry after the interaction than before the interaction.

It is also possible that a self-fulfilling prophecy did not occur because perceivers failed to act on their expectations. Research has shown that perceivers are less likely to communicate negative expectations than positive expectations (Hilton & Darley, 1985). Perceivers induced with a hostile expectation did ask more hostile questions than perceivers with no hostile expectation. However, the degree to which they did so was small. The
difference in the number of hostile questions asked by perceivers in the no hostile expectation condition compared to those in the double hostile expectation condition was approximately one, which may not have been sufficiently different to elicit significantly different reactions from targets. Moreover, perceivers’ behaviors during the interaction may have conveyed a different expectation to the targets than the expectation conveyed by the questions. For example, it is possible that while perceivers were asking hostile questions they used a pleasant tone of voice or were smiling at the target. Behaving in a hostile manner is not normative or socially desirable and so perceivers may have softened the context of the questions with pleasant mannerisms. If this were the case, then targets would not confirm the expectation because perceivers were not treating them in a hostile manner. Thus, the sequence of events necessary to show a self-fulfilling prophecy may not have been satisfied.

Third, the pattern of results obtained in this experiment indicated that even though perceptual biases accumulated, they did not accumulate in a synergistic manner. That is, the total effect of perceivers’ expectations on their subsequent impressions was not greater than the sum of their individual effects. It is possible that synergistic accumulation did not occur because perceivers were not given enough time to interact with one another to the extent necessary to have a synergistic effect. In this study, perceivers chose their questions independently and, thus, did not have the opportunity to influence one another’s choices. Furthermore, the only time perceivers were together was when they were asking targets their questions. This interaction was structured in such a way that perceivers conversed very little with one another, if at all. It is possible, therefore, that in order for synergistic accumulation to occur perceivers may need more contact with one another.

Conclusion

This research examined whether self-fulfilling prophecy effects and perceptual biases accumulated across perceivers. Additionally, this research examined whether perceivers’ biased hypothesis testing strategies would mediate these processes. The findings of this investigation did not support the accumulation hypothesis for self-fulfilling prophecy effects. Perceivers’ expectations did not have a self-fulfilling influence on targets’ behaviors. However, results did support the accumulation hypothesis for perceptual biases. Even though targets’ did not behaviorally confirm perceivers’ unfavorable expectations, perceivers still believed their expectations had been confirmed, especially when perceivers held similar and
unfavorable expectations. Perceivers rated targets more negatively as the number of perceivers holding a hostile expectation increased. Results also indicated that perceivers used a biased hypothesis testing strategy when interacting with targets. Perceivers with a hostile expectation asked more hostile questions than perceivers with no hostile expectation. However, given the magnitude of this effect, it is unlikely that it mediated the accumulation of perceptual biases.

It is important to explore the potential cumulative effects of perceptual biases in different contexts and using different expectations. For example, within the area of psychology and law, the study of perceptual biases may be applicable in the context of the jury decision-making process. Jurors may generate expectations about the defendant based on stereotypes, prior knowledge, or pre-trial publicity. This is a situation in which juror members are unlikely to have a self-fulfilling influence on the defendant; however, they may perceive that their expectations about the defendant have been confirmed. Furthermore, the belief that their expectations have been confirmed may be stronger when there are other jurors holding similar expectations, as the findings of this investigation suggest. These perceptual biases may influence jurors' later judgments of the defendant's responsibility and guilt. Thus, the accumulation of perceptual biases has the potential to have important implications for targets.
References


Footnotes

1In many instances, people can simultaneously be both a perceiver and a target as they develop expectations about others and others develop expectations about them. However, a distinction is made between the two as a way to more clearly illustrate the steps involved in a self-fulfilling prophecy.
Appendix A: Questions

Non-hostile Questions
1. When interviewing for a job, what quality do you think most employers are looking for and why?
2. How do you let others know that you’re open to listening to their opinions?
3. How do you make your new friends feel welcome when interacting with your old friends?
4. What are three qualities you look for in a mate?
5. When someone does a favor for you, how do you show him/her that you really appreciate it?
6. What is one of the best things about being a college student and why?
7. If you could travel anywhere in the world, where would you go and why?
8. What do you see as being a good aspect of people everywhere?
9. Tell me about something you did this week that makes you a good person.
10. If you knew that you only had 24 hours left to live, how would you spend those hours?
11. Can you tell me about a time when you helped out a family member who really needed it?
12. If you were interested in meeting new people, what kinds of things would you do?
13. What kind of things do you do to let others who are close to you really know you care?
14. What kind of career plans do you have?
15. What is your favorite hobby and what makes it a favorite hobby of yours?
16. Who is the person that you usually go to when you’re upset and why do you go to this person?

Hostile Questions
17. Imagine someone spread a rumor about you, what would you do to get back at them?
18. If you knew that someone had stole from you and you decided to confront him/her about it, what would you say to him/her?
19. How would you respond if someone you were dating seriously, cheated on you?
20. Imagine a friend told one of your biggest secrets, what would you say or do?
21. If you were in a fight, what’s a dirty move you might pull to win?
22. What would you do if a person you didn’t know kept rudely staring at you?
23. What kinds of things can make you lose your temper and why?
24. Tell me about a time when someone damaged or lost something that was important to you.
25. Tell me about an argument that you sometimes have with your parents.
26. Tell me something that you don’t like about either a current or past roommate.
27. What would you do if another student borrowed your class notes and then lost them?
28. When someone close to you really makes you mad, what do you do to piss them off in return?
29. Describe a time when a friend or significant other made plans with you, but then backed out without really apologizing for it.
30. What would you do if your teacher accused you of cheating when you actually hadn’t?
31. What kind of things do you hate about really large crowds of people?
32. What kinds of people do you find really difficult to get along with?
# Appendix B: Profile of Mood States

Please answer for how you are feeling **RIGHT NOW**.

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How unhappy do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>2. How lively do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>3. How tense do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>4. How angry do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>5. How sad do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>6. How active do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>7. How on edge do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>8. How peeved do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>9. How blue do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>10. How energetic do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>11. How hopeless do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>12. How uneasy do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>13. How annoyed do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>14. How discouraged do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>15. How cheerful do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>16. How restless do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>17. How resentful do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>18. How miserable do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>19. How full of pep do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>20. How nervous do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>21. How bitter do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>22. How helpless do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>23. How vigorous do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>24. How anxious do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>25. How furious do you feel now?</td>
<td>(1) Not at all</td>
</tr>
<tr>
<td>26. How worthless do you feel now?</td>
<td>(1) Not at all</td>
</tr>
</tbody>
</table>
Appendix C: Cook-Medley Trait Hostility

For each of the items indicate whether the answer is True (T) or False (F) for you.

1. When I take a new job, I like to be tipped off on who should be gotten next to ............... T F
2. When someone does me wrong, I feel I should pay him back if I can, just for the principle of the thing .................................................. T F
3. I prefer to pass by school friends, or people I know but have not seen for a long time unless they speak to me first ............................................. T F
4. I have often had to take orders from someone who did not know as much as I did ................................................................. T F
5. I think a great many people exaggerate their misfortunes in order to gain the sympathy and help of others .......................................................... T F
6. It takes a lot of argument to convince most people of the truth .................................................. T F
7. I think most people would lie to get ahead ................................................................. T F
8. Someone has it in for me .................................................................................................. T F
9. My relatives are nearly all in sympathy with me ........................................................................ T F
10. Most people are honest chiefly through fear of being caught .................................................. T F
11. Most people will use somewhat unfair means to gain profit or an advantage, rather than to lose it .................................................................................................................. T F
12. I commonly wonder what hidden reason another person may have for doing something nice for me .................................................................................. T F
13. It makes me impatient to have people ask my advice or otherwise interrupt me when I am working on something important ........................................................................ T F
14. I feel that I have often been punished without cause ............................................................... T F
15. I am against giving money to beggars ......................................................................................... T F
16. Some of my family have habits that bother and annoy me very much ........................................ T F
17. My way of doing things is apt to be misunderstood by others .............................................................. T F
18. I can be friendly with people who do things which I consider wrong ........................................ T F
19. I don't blame anyone for trying to grab everything he can get in this world ..................................... T F
20. No one cares much what happens to you ................................................................................ T F
21. It is safer to trust nobody ........................................................................................................ T F
22. I do not blame a person for taking advantage of someone who lays himself open to it .................. T F
23. I have often felt that strangers were looking at me critically ......................................................... T F
24. Most people make friends because friends are likely to be useful to them .................................... T F
25. I am sure I am being talked about ............................................................................................. T F
26. I am not likely to speak to people until they speak to me ................................................................ T F
27. Most people inwardly dislike putting themselves out to help other people ..................................... T F
28. I tend to be on my guard with people who are somewhat more friendly than I had expected ................ T F
29. People often disappoint me ........................................................................................................ T F
30. I have often met people who were supposed to be experts who were no better than I ..................... T F
31. It makes me feel like a failure when I hear of the success of someone I know well .......................... T F
32. I am not easily angered .............................................................................................................. T F
33. People generally demand more respect for their own rights than they are willing to allow for others ............................................................................................................ T F
34. I am quite often not in on gossip and talk of the group I belong to ................................................. T F
35. I have often found people jealous of my good ideas just because they had not thought of them first .................................................................................................................. T F
36. I have sometimes stayed away from another person because I feared doing or saying something I might regret afterwards ............................................................................. T F
37. I would certainly enjoy beating a crook at his own game .............................................................. T F
38. I have at times had to be rough with people who were rude or annoying. ..........................................................T  F
39. There are certain people whom I dislike so much that I am inwardly pleased when they
are catching it for something they have done..........................................................T  F
40. I am often inclined to go out of my way to win a point with someone who has opposed me........T  F
41. The man who had most to do with me when I was a child (such as my father,
stepfather, etc.) was very strict with me..........................................................T  F
42. I like to keep people guessing what I’m going to do next..........................................................T  F
43. When a man is with a woman, he is usually thinking about things related to sex.....................T  F
44. I do not try to cover up my poor opinion or pity of a person so that
he won’t know how I feel..........................................................T  F
45. I strongly defend my own opinions as a rule..........................................................T  F
46. I frequently ask people for advice. ..........................................................T  F
47. I have frequently worked under people who seem to have things arranged so that they
Get credit for good work but are able to pass off mistakes onto those under them.....................T  F
48. People can pretty easily change me even though I thought my mind was already
made up on a subject..........................................................T  F
49. Sometimes I am sure that other people can tell what I am thinking........................................T  F
50. A large number of people are guilty of bad sexual conduct........................................T  F
Appendix D: Impression Formation Questions

Please rate the extent to which the following adjectives describe (yourself) or (the respondent).

<table>
<thead>
<tr>
<th>Not at All</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>Extremely</th>
</tr>
</thead>
</table>

Normal  
Talkative  
Aware  
Interesting  
Hostile  
Kind  
Considerate  
Dull  
Unfriendly  
Foolish  
Dislikable  
Warm  
Knowledgeable  
Lively  
Rude  
Insulting  
Superficial  
Capable  
Sympathetic  
Pleasant  
Impolite  
Average  
Reserved  
Alert  
Aggressive  
Competitive  
Helpful  
Excited  
Conventional  
Sociable  
Sensitive
Appendix E: Blank Profile

COOK-MEDLEY RESULT
PERSONALITY PROFILE

<table>
<thead>
<tr>
<th>Session #</th>
<th>Date/Time</th>
<th>UNIT</th>
<th>Computer Pro</th>
<th>Program</th>
<th>CODE ID</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Supervisor</th>
<th>Assistant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Responses:

<table>
<thead>
<tr>
<th>Question #</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
<td>32</td>
<td>33</td>
<td>34</td>
<td>35</td>
<td>36</td>
<td>37</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>37</td>
<td>38</td>
<td>39</td>
<td>40</td>
<td>41</td>
<td>42</td>
<td>43</td>
<td>44</td>
<td>45</td>
<td>46</td>
<td>47</td>
<td>48</td>
<td>49</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Shaded questions indicate hostile answer

Results:

<table>
<thead>
<tr>
<th>Description</th>
<th>10</th>
<th>9</th>
<th>8</th>
<th>7</th>
<th>6</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HOSTILE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Hostile individuals tend to be irritable, easily angered, and aggressive. They often hold negative beliefs about other people and have very strong opinions, which can make them argumentative. They can become testy if they are challenged or things are not going their way. In competitive situations, people often find them to be disagreeable and unpleasant to be with.

<table>
<thead>
<tr>
<th>Description</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AVERAGE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Individuals scoring in the average range are usually calm and even-tempered. They are reasonably comfortable in social situations, but are neither especially friendly nor especially hostile.

<table>
<thead>
<tr>
<th>Description</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FRIENDLY</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friendly individuals truly enjoy talking and interacting with other people. They tend to see the best in people and try to make them feel good about themselves. They try to see both sides of an issue, and work on finding areas of common ground. On the whole, others find them to be pleasant people.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix F: Hostile Profile

**COOK-MEDLEY RESULT**

**PERSONALITY PROFILE**

<table>
<thead>
<tr>
<th>Session #</th>
<th>Date/Time</th>
<th>Supervisor</th>
<th>Assistant</th>
<th>UNIT</th>
<th>Computer Pro</th>
<th>Program</th>
<th>CODE ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>65</td>
<td>02/25/05</td>
<td>05</td>
<td>02</td>
<td>INT1</td>
<td>1</td>
<td>3</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>INT2</td>
<td>2</td>
<td>2</td>
<td>231</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RES</td>
<td>3</td>
<td>2</td>
<td>305</td>
</tr>
</tbody>
</table>

Responses:

<table>
<thead>
<tr>
<th>Question #</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>22</td>
<td>5</td>
</tr>
<tr>
<td>23</td>
<td>6</td>
</tr>
<tr>
<td>24</td>
<td>7</td>
</tr>
<tr>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>26</td>
<td>9</td>
</tr>
<tr>
<td>27</td>
<td>10</td>
</tr>
<tr>
<td>28</td>
<td>11</td>
</tr>
<tr>
<td>29</td>
<td>12</td>
</tr>
<tr>
<td>30</td>
<td>13</td>
</tr>
<tr>
<td>31</td>
<td>14</td>
</tr>
<tr>
<td>32</td>
<td>15</td>
</tr>
<tr>
<td>33</td>
<td>16</td>
</tr>
<tr>
<td>34</td>
<td>17</td>
</tr>
<tr>
<td>35</td>
<td>18</td>
</tr>
<tr>
<td>36</td>
<td>19</td>
</tr>
<tr>
<td>37</td>
<td>20</td>
</tr>
</tbody>
</table>

Shaded questions indicate hostile answers

Results:

- Hostile Answers: 31
- Total Questions: 50
- Hostile: 8.25

Descriptions:

**HOSTILE**

Hostile individuals tend to be irritable, easily angered, and aggressive. They often hold negative beliefs about other people and have very strong opinions, which can make them argumentative. They can become testy if they are challenged or things are not going their way. In competitive situations, people often find them to be disagreeable and unpleasant to be with.

**AVERAGE**

Individuals scoring in the average range are usually calm and even-tempered. They are reasonably comfortable in social situations, but are neither especially friendly nor especially hostile.

**FRIENDLY**

Friendly individuals truly enjoy talking and interacting with other people. They tend to see the best in people and try to make them feel good about themselves. They try to see both sides of an issue, and work on finding areas of common ground. On the whole, others find them to be pleasant people.
Appendix G: Additional Measures

*Demographic Information* presented on MediaLab:
Gender: Male or Female
Age
Year in School: Freshman, Sophomore, Junior, or Senior
Ethnicity: African American, Asian, Latino/a, Caucasian, or Other.

*Filler Questions* presented on MediaLab:
Have you ever conducted an interview before?
Have you ever been interviewed before?
*Perceivers only*: How nervous are you about interviewing this person?
*Targets only*: How nervous are you about being interviewed?
How well do you think the interview will go?

*Suspicion Checks* presented on MediaLab:
In a sentence or two, please indicate what you believe this experiment was about: Open-ended response.
Do you believe that you were misled in anyway during this experiment?: Yes or No.
If you believe that you were misled, please describe how: Open-ended response.
Please indicate what you knew about this experiment before participating: Open-ended response.
Is there any reason why we should not use your data?: Yes or No.
Please explain why we should not your data: Open-ended response.

*Manipulation Check* presented on MediaLab:
The personality profile that you saw earlier indicated that the respondent was...: Hostile, Average, or Friendly.
After talking with the respondent, how would categorize his or her personality: Hostile, Average, or Friendly.
Do you think the respondent’s personality matched his or her profile?: Yes or No.
Appendix H: Script: Perceivers with No Hostile Expectation

Participants pick up a card located by the door that assigns them to a condition. Participants are separated into their rooms. (Try not to let participants see/interact with one another). If a participant draws the “other study” card, place them in the other room until we are sure that was have 3 participants. Try to determine if participants know each other.

**INSTRUCTIONS TO NO EXPECTATION:**

“In this study you are going to fill out some questionnaires, participate in a short interview, and then give your impression of how the interview went. Just as a reminder, we will be videotaping the interview, and you are ok with this. Ok, great. First, I would like you to answer a few questions using the computer. Just follow the instructions provided on the screen and when you are finished, please flip over the sign so that we know you are done. If you have questions at any time, please let me know.”

**INSTRUCTIONS TO NO EXPECTION:**

“As you were informed earlier, you will be taking part in an interview with two other participants. Participants in this study are either playing the role of an interviewer or of a respondent. You have been randomly assigned to play the role of an interviewer. We’re asking all participants to wear a nametag so that you’ll know who’s who without having to use names. Here is your nametag. We are interested in understanding more about how individuals communicate in interview-type situations, where people ask questions to another person in a structured setting. In this study, the respondent, using the computer, has answered several questions that assess different aspects of their personality.

For example, one measure assesses extraversion/introversion, which is basically how outgoing a person is. Another, that we’re particularly interested in, in this session, is one that measures how hostile/friendly a person is. Here is a blank profile scale measuring that trait (*Show blank profile*). Go ahead and take a look at it. A person can be classified into one of three different categories: friendly, average, or hostile. And as you can see there is a description of each personality type.

What I would like you to do is, try to find out which personality type best describes the respondent. You’ll do this during the upcoming interview where you’ll ask him/her several questions. We’ve made this task a little bit easier for everyone by coming up with the questions ourselves. You will just choose which questions you would like to ask. However, you should feel free to ask the respondent to elaborate. For example, you can say, what do you mean by that or can you explain a little more. Here are the questions. (*Hand them the note-cards*). You should select 7 questions to ask the respondent. Any questions? And remember we are trying to mimic an interview setting, so we would like you to act as professional as possible when interacting with the respondent. You’re not there to be their friend; you want to find out information about them. Ok? Then just flip over the sign when you are finished.

*Assistant moves participants into interaction room, leads them through the interaction, and brings them back.*
Appendix I: Script: Perceivers with Hostile Expectation

Participants pick up a card located by the door that assigns them to a condition. Participants are separated into their rooms. (Try not to let participants see/interact with one another). If a participant draws the “other study” card, place them in the other room until we are sure that was have 3 participants. Try to determine if participants know each other.

INSTRUCTIONS TO EXPECTATION:
“In this study you are going to fill out some questionnaires, participate in a short interview, and then give your impression of how the interview went. Just as a reminder, we will be videotaping the interview, and you are ok with this. Ok, great. First, I would like you to answer a few questions using the computer. Just follow the instructions provided on the screen and when you are finished, please flip over the sign so that we know you are done. If you have questions at any time, please let me know.”

INSTRUCTIONS TO EXPECTATION:
“As you were informed earlier, you will be taking part in an interview with two other participants. Participants in this study are either playing the role of an interviewer or of a respondent. You have been randomly assigned to play the role of an interviewer. We’re asking all participants to wear a nametag so that you’ll know who’s who without having to use names. Here is your nametag. We are interested in understanding more about how individuals communicate in interview-type situations, where people ask questions to another person in a structured setting. In this study, the respondent, using the computer, has answered several questions that assess different aspects of their personality. For example, one measure assesses extraversion/introversion, which is basically how outgoing a person is. Another, that we’re particularly interested in, in this session, is one that measures how hostile/friendly a person is.

In interview-type situations, interviewers typically have additional information about the person that they are interviewing. Thus, you are going to receive information about the respondent. Um, let me see. Here is the respondent’s profile on that friendliness/hostility measure. Based on how an individual answers specific questions, a score is generated, and that score would indicate where he/she would fall on this scale. And based on this scale, a person can be classified into one of three different categories: friendly, average, or hostile. And as you can see there is a description of each personality type. It looks like this person has a score of 8.25, which places them right about here (place an X next to hostile).

What I would like you to do is, try to find out if the respondent is a hostile personality type. You’ll do this during the upcoming interview where you’ll ask him/her several questions. We’ve made this task a little bit easier for everyone by coming up with the questions ourselves. You will just choose which questions you would like to ask. However, you should feel free to ask the respondent to elaborate. For example, you can say, what do you mean by that or can you explain a little more.

Here are the questions. (Hand them the note-cards). You should select 7 questions to ask the respondent. Any questions? And remember we are trying to mimic an interview setting, so we would like you to act as professional as possible when interacting with the respondent. You’re not there to be their friend; you want to find out information about them. Ok? Then just flip over the sign when you are finished."

Assistant moves participants into interaction room, leads them through the interaction, and brings them back.
Appendix J: Script: Target

After all participants have arrived and their roles have been determined - Hand out consent forms: Make sure participants read and sign.

INSTRUCTIONS TO RESPONDENT:
"In this study you are going to fill out some questionnaires, participate in a short interview, and then give your impression of how the interview went. Just as a reminder, we will be videotaping the interview, and you are ok with this. Ok, great. First, I would like you to answer a few questions using the computer. Just follow the instructions provided on the screen and when you are finished, please flip over the sign so that we know you are done. If you have questions at any time, please let me know."

INSTRUCTIONS TO RESPONDENT:
"As you were informed earlier, you will be taking part in an interview with two other participants. Participants in this study are either playing the role of an interviewer or of a respondent. You have been randomly assigned to play the role of the respondent. We’re asking all participants to wear a nametag so that you’ll know who’s who without having to use names. Here is your nametag. During the interview, the two interviewers will attempt to find out information about you by asking you several questions. All you have to do is answer their questions as honestly as you can, but try to give more than just a one-sentence response. Do you have any questions at this time?"

So that you are not completely unprepared for this interview, here is a stack of questions that participants may be asking you. Go ahead and take a few moments to flip through them, we will come get you once we have finished setting up everything. Ok?"

Once all interviewers have finished their task then move participants into interaction room by saying “Please follow me into the next room where the interview will take place.” When you get to the next room seat the interviewers next to one another facing the respondent.

INSTRUCTIONS TO RESPONDENT:
"Now the interviewers, you and you (point to interviewers) will begin the interview by asking the respondent questions (point to respondent). As interviewers, you will be able to ask the respondent 7 questions each and will take turns doing so. Once you have asked a question, write down what question it was (1-7) on the note-card. (Experimenter demonstrates what he/she means by this). Any questions about how to number your cards? Interviewer #1 will start with his/her question first and after the respondent has answered it fully, interviewer #2 will ask his/her question. If you need anything, I will be waiting in the front room. When you have asked and answered all 14 questions, let me know”.

INSTRUCTIONS TO RESPONDENT:
"Finished? Now I would like you each to return to your original room. When you get there go ahead and close the door and begin the next set of questions on the computer. Once again, when you’ve finished just flip over the sign on the door. Thank you.”
Appendix K: Debriefing

The experimenter or experimenter assistant gives the following debriefing:

"Thank you for your participation. The purpose of this study was to examine behavioral confirmation. Behavioral confirmation is an inaccurate expectation that can become true through social interaction.

In some conditions, interviewers were not given any information about the respondent. And in other conditions, interviewers were given false information about the respondent. These interviewers were given information that indicated that the respondent was either a hostile or friendly person. However, this is simply not true. At this time, we have no idea whether the respondent is really hostile or not. It is important that you understand this, because sometimes what is called a perseverance effect can happen. And this is basically when you tell participants that they received false information about someone, but that false information continues to influence them anyway. I am telling you about the perseverance effect, because simply being told that this can happen, reducing the chances that it will happen. Remember roles were randomly assigned, so anyone of the participants was just as likely to be labeled as hostile as the respondent was.

It was necessary that we did not tell you these things before you participated because sometimes knowing a study's true purpose causes people to change their responses without their awareness. For this reason, please do not tell others who might participate in this study what we have told you. That way we can keep the experiment the same for all participants."

Hand them a debriefing card that says the following:

Your participation today has been very valuable because it will further the field's understanding of circumstances that can lead to stronger behavioral confirmation effects. If you have any concerns about your participation in this study, please contact the psychology office. If you have any other questions or concerns please ask the experimenter or contact Jenny Willard, W1239 Lagomarcino Hall, ISU (515) 294-5850. Blank consent forms containing contact information are available by the exit. Feel free to take one when you leave."