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WHY BOTHER?: THE NATURE OF WOMEN'S

IMPLICIT THEORIES ABOUT THE MALLEABILITY OF MEN'S ATTITUDES

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ABSTRACT

Four studies are presented that examine the influence of women's beliefs about the changeability of men's sexist attitudes. Study 1 explores the construct validity of a new measure of implicit attitudes that has been specifically designed to measure women's beliefs about sexism. Study 2 measures women's individual differences in implicit attitudes about sexist men, and demonstrates that women who see men as more changeable are more likely to endorse confronting behavior. Study 3 shows that implicit attitudes can be manipulated, and Study 4 extends the findings from the previous survey study into a high impact setting. Consistent with the author's predictions, women who see men's sexist attitudes as more changeable are more likely to confront sexism.

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Chapter 1

"Why bother:" a phrase that conveys considerably more information than one might suppose. "Why bother to fight it?" "Why bother to try to change it?" Implicit in this idea is the assessment that "it" has some power over the actor, such that whatever efforts are made, the resulting end will not be different enough from the present to justify the attempt. Efforts deemed to be quixotic or even hopeless will not be attempted. This paper will bring together several lines of research in an attempt to address the implications of a specific "why bother" question: Why bother to confront sexism and sexist behavior. I propose that one, as yet untested aspect of whether women will confront sexism, is related to the individual's perception that some utility can be derived from such action. Specifically, differences in the perception of how changeable are men's sexist attitudes will influence the likelihood of confronting the behavior.

Swim and colleagues (Swim, Hyers, Cohen, & Ferguson, 2001; Swim, Cohen, & Hyers, 1998) have documented the prevalence of women's exposure to sexist behavior in their daily lives. In several laboratory experiments Swim and her colleagues (Swim & Hyers, 1999; Stangor, Swim, Van Allen, & Sechrist, 2002; see also Woodzicka & LaFrance, 2001) have also shown that when women are faced with even blatant sexism, they are often unlikely to confront. In one experiment fewer

than half of the female participants made any public response to a sexist act by a

male confederate, even though many of these women later acknowledged that the

man was sexist (Swim & Hyers, 1999). Clearly then, for many of the women, the

situations were not ambiguous in terms of recognizing sexism, rather some aspect of

the post-recognition process made confronting less desirable than saying nothing. I

propose that one possible reason that these women did not confront in these situations

is because they did not believe that confronting could change either the man's

behavior or his sexist attitude.

Kaiser and Miller have defined confronting as, "a volitional process aimed at

expressing one's dissatisfaction with discriminatory treatment" (2004, p. 168).

Several different construals of the discrimination experience have been proposed to

influence the likelihood of confronting (Kaiser & Miller, 2004; see also, Major,

Quinton, & McCoy, 2002). Assessment of the costs of confronting is perhaps the

most often examined aspect of the decision to confront. Common to much of the

research on confronting is the idea that the confronter will be seen as a troublemaker

or may face possible recriminations for their confronting actions (Bergman,

Langhout, Palmieri, Cortina, & Fitzgerald, 2002; Crosby, 1993; Feagin & Sikes,

1994; Haslet & Lipman, 1997; Kaiser & Miller, 2001; Swim & Hyers, 1999). The

research in the laboratory supports the idea that the costs of confronting inhibit

women's confrontation of discriminatory experiences.

Although the costs of confronting are widely understood, only a few

researchers have examined the benefits of confronting. Potential benefits to

confronting include preventing future sexist behavior and attempting to change the

social milieu (Kaiser & Miller, 2004). Hyers (2002) in a study of interpersonal incidents of anti-Black racism, anti-Semitism, heterosexism, and sexism found that 21 percent of participants cited educating the perpetrator as their reason for confronting discrimination. Although over one third of the respondents reported that avoiding conflict was their main motivation (leading to non-confronting behavior), the next most frequently cited motivation reported was to educate the perpetrator in order to change the person or the behavior. In a related study, as a test of their stress and coping model of confronting, Kaiser and Miller (2004) measured expectations about reducing sexism through confronting. Though tangentially related to their model, they did demonstrate a significant and positive relationship between expectations of reducing sexism through confronting and confronting behavior.

Thus far this discussion has introduced the possibility that women can perceive confronting as a means to effect change. Inherent in this supposition is the possible perception that men have the capacity to change their sexist attitudes and/or behaviors. If men's sexist attitudes and behaviors are seen as fixed and unalterable, then there should be no expectation of the possibility to change those attitudes or behaviors, and the motivation to confront should be reduced. If, on the other hand, men's sexist attitudes and behaviors are seen as more malleable or amorphous, then affecting change in those attitudes and behaviors should be perceived as a viable and desirable benefit to confronting.

Recent research has begun to examine differences in people's perceptions of groups as fixed and unalterable, or as more amorphous, malleable entities. These differences could provide insight into reasons for variability in confronting sexism.

First, I shall provide a brief introduction to implicit theory literature that addresses these perceptions, and then integrate the findings about confronting discrimination, discussed above, with this theoretical perspective. Finally, I outline a series of four studies that will demonstrate a new and useful perspective on the confronting literature. The theoretical combination of theory-based perception and confronting-utility construal provides the unique perspective that will serve to explain why so many women fail to bother confronting sexism.

Theoretical Background

The theoretical background for the way in which the malleability of individuals are understood to be perceived draws from work that began as an attempt to understand how groups were perceived. A theoretical paper written by Campbell in 1958 on the perceptual reality of social groups, was based on the Aristotelian idea that concepts or objects can be classified based upon an understanding of that concept's core features. These features are assumed to be unchanging and all of the members of that group will once and forever share those features. Campbell proposed that the degree to which a group was perceived as an entity could provide insight into the perception process. Perceptions of group similarity, shared goals, and stability were all principles proposed to be cues to the degree to which a group was seen as possessing *entitativity*, a term Campbell coined.

Within the field of social psychology empirical research has demonstrated that the principles of group perception that Campbell outlined influence how groups are perceived to be entities rather than collections of individuals (e.g., Abelson,

Dasgupta, Park, & Banaji, 1998; Dasgupta, Banaji, & Abelson, 1999; Brewer &

Harasty, 1996; Lickel, Hamilton, Wieczorkowska, Lewis, Sherman, & Uhles, 2000).

One line of inquiry that has addressed issues of entitativity is research on the out-

group homogeneity effect. In this research, members of out-groups are perceived to

be less variable than are members of in-groups, and thus out-groups are seen as more

essentialist in nature (e.g., Linville, Fischer, & Salovey, 1989; Park & Judd, 1990;

Judd & Park, 1988). This research and more recent work incorporating the

moderating influence of power and minority versus majority status (e.g., Lorenzi-

Cioldi, 1998; 1993; Guinote, Judd, & Brauer, 2002) demonstrates that out-groups are

often seen by high power and majority status members in terms of their category

membership, and not as individuals.

Nick Haslam and colleagues (Haslam, Rothschild, & Ernst, 2000; see also

Haslam, Rothschild, & Ernst, 2004) have combined elements from essentialist

theories in literature, philosophy, and social theory to create a measure of

essentialism. Haslam's measure of essentialism has been used to understand general

conceptions of various social categories and to differentiate the degree to which

various categories are thought of as having more fixed or immutable elements.

Rather than focus on the nature of the category, some researchers have

examined the question of group essence from an individual difference perspective.

They have specifically examined possible factors that might influence a perceiver to

see a group as a coherent and meaningful entity (see Plaks, Levy, Dweck, &

Stroessner, 2004).

Over the past twenty years, researchers have begun to examine how an individual's naïve theory of the self and others can influence subsequent judgments (Dweck, Chui, & Hong, 1995; Dweck & Leggett, 1988; Ross, 1989). These naïve theories are known as Implicit Theories. *Implicit theories* are lay belief-systems about the malleability of human character that provide a framework of meaning to evaluate the social world. "As such, implicit theories guide social judgments, inform social action, and hence are relevant to understanding stereotyping and prejudice" (Levy, 1999 cited in Hong, et al., 2004). Early work by Kelly (1955) and Heider (1958) on lay theory-guided social perception is often cited as the theoretical foundation for the work that is now considered under the rubric of implicit theory research. These naive theories are referred to as implicit theories because the perceiver is not relying on a scientific understanding of their perceptions, and they are not necessarily able to explicitly state the nature of their beliefs (Plaks, et al., 2004; Wegener & Petty, 1998).

Though it is probable that most perceivers would be pressed to describe the nature of their implicit theories, recent research supports that idea that these lay theories can be influential in perceiving and interacting with individuals and groups (e.g., Chui, Morris, Hong, & Menon, 2000; Wittenbrink, Hilton, & Gist, 1998; Yzerbyt, Leyens, & Corneille, 1998; see also, Yzerbyt, Judd, & Corneille, 2004). Dweck and colleagues have investigated differences in people's implicit theories about the fixedness or malleability of human personality (e.g., Dweck, 1999; Dweck, Chui, & Hong, 1995; Dweck & Legget, 1988; see also Plaks, et al., 2004). This research is based on the notion that implicit theories about the essentialist nature of

other groups can influence judgments about those group members. Those individuals who see the characteristics of others as fixed and unalterable have been termed *entity theorists*. Such people are more likely to believe that said characteristics are beyond the control of the target, even if the target is motivated to change. Diametrically opposed to entity theorists are those termed *incremental theorists*. These individuals are more likely to see personal characteristics as malleable and changeable, as long as the target of the perceptions is willing to invest sufficient effort (Dweck, 1999; Dweck, Chui, & Hong, 1995; Dweck & Legget, 1988).

Research supports the idea that people can be classified along an entity-incremental continuum in a variety of personal and interpersonal ways. Because entity theorists expect consistency in their perceptions of others, due to the belief in a fixed nature of the perceived, they are most likely to be influenced by category traits. Incremental theorists are more likely to take into account the situational influences acting on the target because they are less reliant upon a priori assumptions about the traits (Erdley and Dweck, 1993; Gervey, Chui, Hong, & Dweck, 1999; Levy & Dweck, 1998; 1999; Levy, Stroessner, & Dweck 1998).

Much of the research was originally designed to measure implicit theories about intelligence and moral character using domain specific measures of implicit theories, but researchers have extended the theory to include stereotypes of ethnic and occupational groups. It is believed that implicit theories of the malleability of groups and individuals might moderate the likelihood of employing biases in inter-group perceptions (Hong, et al., 2003; Hong, Levy, & Chui, 2001; Hong, et al., 2004). For

example, Levy and colleagues found that stereotypes are more strongly endorsed by entity theorists than incremental theorists, even when both groups are equally aware of the social stereotypes of the groups (Levy, Stroessner, & Dweck 1998). Entity theorists see group membership as an indication of the presence of stable traits, which are, in turn seen as useful for making dispositional inferences.

In addition to measuring implicit theories as stable, chronically accessible perception paradigms, several researchers have examined how these theories can be manipulated to yield similar person perception outcomes (Chiu, Hong, & Dweck, 1997; Hong, Chiu, Dweck, Lin, & Wan, 1999; Levy & Dweck, 1999; Plaks, Stroessner, Dweck, & Sherman, 2001). When participants are explicitly told that a particular trait is either fixed or malleable, they are likely to internalize this information, and subsequently are more likely to conceptualize the perceived characteristic in either an entity or incremental way. The finding that implicit theories can be situationally manipulated is offered as proof that the relationship between implicit theory endorsement and perception inferences is orthogonal (see, Plaks, et al., 2004).

Applying Implicit Theories to Confronting

Previous research examining the influence of implicit theories about the essentialist nature of others has examined the process up to the point of perceptional inference, but has not examined specific behaviors tied to those perceptions. I am specifically interested in examining confronting behavior. Confronting can be understood as a means of primary control coping, a form of engagement coping in

which efforts are made to change the situation as opposed to changing the self (Compas, Conner, Saltzman, Thomsen, & Wadsworth, 2001; Miller & Kaiser, 2001; Kaiser & Miller, 2004). The focus on changing situations, including other people, suggests that issues surrounding implicit theories of malleability provide an appropriate means for considering the application of confronting behavior.

I am assuming that the more a perpetrator and his or her behavior is judged as sexist, the more likely an individual will be motivated to engage in a coping response, with confronting as one possible coping response they might consider (Swim & Thomas, 2005). Specifically, when individuals encounter sexism they will be motivated to try to prevent future sexist acts on the part of the perpetrator. This motivation could be a desire to change the perpetrator's internalized attitude toward women, or to change the likelihood of future public displays of the undesired attitude (Crosby, 1993; Feagin & Sikes, 1994; Kaiser & Miller, 2004). However, the motivation to confront need not always result in actual confronting behavior. Implicit theories about the malleability of men's sexism are proposed to influence the extent to which a perpetrator's attitudes and behaviors are seen as changeable, which will be an important determinant of whether that individual "bothers" to confront others.

In order to understand the role of implicit theories of malleability in confronting, it is important to consider the general processes associated with confronting. Stangor, Swim and colleagues (Stangor, Swim, Sechrist, DeCoster, Van Allen, & Ottenbreit, 2003) have proposed a three part model of the perception process for targets of discrimination that provides a useful framework for describing how one goes from noticing an event to responding to that event. Dubbed *Ask, Answer, and*

Announce, the three stages represent a logical progression in the construal of an event. First, when an event occurs one can either notice the event, prompting the perceiver to consider the question of whether prejudice and discrimination is an explanation for the behavior. Alternatively, one may fail to notice the possibility that a behavior may be interpreted as sexist. This can be conceptualized as whether or not one asks the question "is this discrimination?" If no question has been asked, then no further processing will occur, but if the question has been asked, then the perceiver progresses to the second stage of the model.

The second part of the model can be conceived of as answering the question posed from the previous stage. At this point in the model one could interpret the event as not being a problem resulting in an exit from the process. Conversely, one could interpret the event as a problem "yes, this is discrimination", resulting in the awareness that one has been the target of discrimination. However, privately labeling an incident or person as sexist (answering "yes") need not be related to publicly labeling an incident or person as sexist. Because publicly labeling an incident or person as sexist is central to confronting, it is important to consider the individual's decisions about whether or not to take this public step when trying to understanding whether or not individuals will confront the sexism.

Decisions about whether or not to publicly label (i.e., announce) that an incident is sexist occur in the last stage of the model. The perceiver may choose to make no response to the event (or make a non-confrontational response), or the perceiver may publicly label an incident as sexist as part of efforts to confront. Research has documented differences between private and public labeling and

confronting of sexism with the assumption that the discrepancy between the public

and private responding is indicative of self-presentation concerns (e.g., Shelton &

Stewart, 2004; Kaiser & Miller, 2001). This conclusion is bolstered by findings that

indicate that those who confront are not evaluated as favorably as those who do not

confront (Dodd, Giulian, Boutell, & Moran, 2001; Kaiser & Miller, 2001).

In contrast to this research emphasizing the role of self-presentation concerns,

I propose that women's implicit theories about the malleability of sexist attitudes will

provide an alternative explanation for discrepancies between women's willingness to

privately and publicly report sexism, thereby providing insight into the processes

involved in moving the Announce stage of the model. It is proposed here that in

certain circumstances the motivation driving the decision to confront will be related

to a desire to change the situation (or specifically the thoughts and behaviors of the

perpetrator in that situation), and not be related to self-presentational concerns.

Figure 1 (page 15) is presented as a representation of the theoretical model,

with the role of implicit theories on the process included. The model shows how

implicit theories of sexism are part of a constellation of possible motives for

confronting. If the motive to try to change the perpetrator is present, it will influence

the decision to publicly announce that the behavior was a problem. If this motivation

is absent, other motivations to confront might be influencing the process (e.g. self-

presentation concerns).

I propose that the reason why implicit theories about sexism influence public

confronting is because these implicit theories increase women's assessment of the

efficacy of confronting behavior for changing other's attitudes or behaviors. I use the

term *response efficacy* to refer to the perception that one's actions contain an inherent utility such that a desired outcome is the likely result. Whereas self efficacy is thought of as the perception that one personally possesses the agency to achieve some desired end (Bandura, 1977; 1997; Flammer, 1995), response efficacy refers to the perception that the available means possess the agency to achieve those ends (Lazarus & Folkman, 1984; Rogers, 1975; Rogers & Prentice-Dunn, 1997; see also Swim & Thomas, 2005). Thus, in addition to implicit theories of sexism influencing the announce stage of the model, I propose that when women judge a behavior or person as sexist, implicit theory endorsement will influence the perception that confronting is a viable means for causing change, which will thus influence the likelihood that women will "bother" to confront a sexist act. Thus for women who perceive sexism, response efficacy is expected to mediate the relationship between implicit theory and confronting.

Note that implicit theories about sexism (influencing the Announce stage of the model) and judgments of sexism (the Answer stage of the model) are orthogonal. As mentioned above, previous research has demonstrated that lay theories are not necessarily related to the perception process, but rather influence how that perceived information is employed (Plaks, et al., 2004). I am predicting a similar relationship in this domain. For example, one's beliefs about the changeability of a person's morality will only influence judgments if morality is a salient construct (e.g., Chiu, C., Dweck, et al., 1997). Similarly, judgments about sexism will only be influenced by implicit theories of sexism is one has noticed that an act is sexist, or if sexism as a construct is salient. Note also that the model bears the label Implicit Theory of

Malleability. For the purposes of these studies, the General Implicit Theory construct and a more domain-specific implicit theory construct related to sexism will be included. Research discussed above has demonstrated that there are some individuals who are generally more likely to employ entity or incremental theories in their person perceptions (e.g., Hong, et al., 2004; Hong, Levy, & Chui, 2001; Hong, et al., 2004; Levy, Stroessner, & Dweck 1998). It seems likely that a general disposition toward viewing others as changeable or unchangeable will be related to beliefs in a specific domain (e.g. beliefs about sexism), but although these constructs are expected to be related, the sexism specific implicit theory construct is expected to have a more direct and stronger relation with confronting due to greater and more specific conceptual similarity (e.g., Fazio, 1986; 1990; Fazio, Powell, & Williams, 1989). Thus the Sexism Implicit Theory and General Implicit Theory constructs are expected to be two separate, but related latent variables in the research.

Present research

Four studies are presented that were intended to identify the contribution of women's implicit theories of men's sexism attitude malleability to the likelihood of confronting. Study 1 examines the construct validity of the Sexism Implicit Theory Measure; a new measure adopted from Dweck and colleagues' work that is intended to capture the unique influence of women's motivation to change sexist men. The scale is compared to seven existing scales related to the perception of sexism, and to the original implicit theory measure.

Study 2 is designed to test whether sexism-specific implicit theories are predictive of the likelihood that confronting sexism will be endorsed. This process will be further explained by testing an expected mediation by assessments of response efficacy. Women who believe that men's attitudes are changeable are predicted to be more likely to believe that confronting is a viable means to generate that change. This belief in the efficacy of confronting is in turn expected to be related to endorsing confronting behavior.

Study 3 will show that, as in other domains, sexism-specific implicit theories can be manipulated, such that the targets will be more likely to confront sexism following an incremental theory endorsement treatment because they will see this action as useful for changing the perpetrators. The same mediational model identified in Study 2 is anticipated for Study 3.

Studies 2 and 3 are vignette studies. In contrast, Study 4 is a high impact study. It will be demonstrated that Study 4 will replicate the findings from the previous studies when assessing actual confronting behavior. Like Study 3, Study 4 involves a manipulation of implicit theories of sexism, but in Study 4 female participants will have the opportunity to report actual confronting responses, as opposed to speculating about hypothetical confronting.

Figure 1 Ask, Answer, Announce Model (Stangor, et al., 2003)
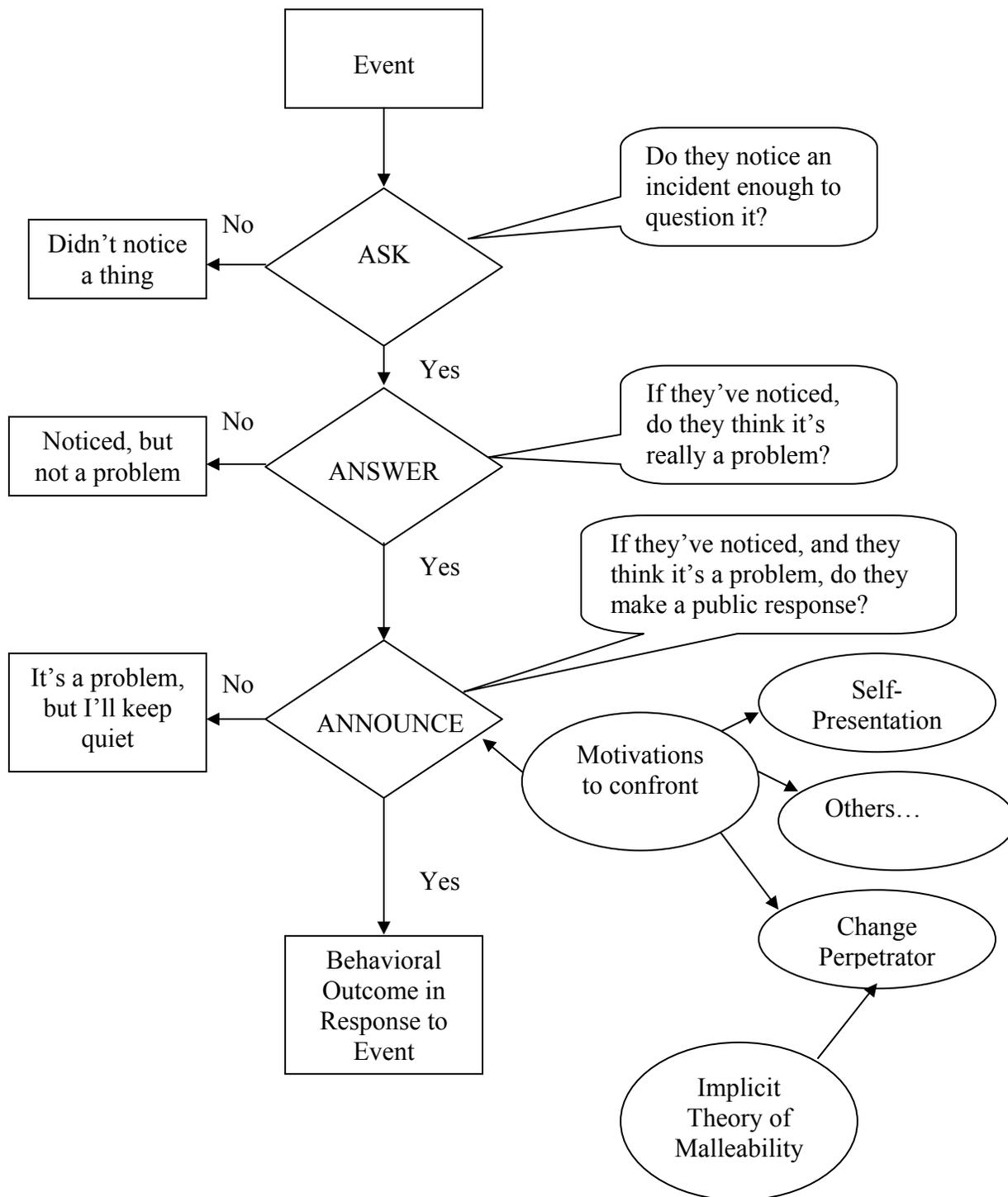
Chapter 2

Study 1

In order to explore the nature of women's implicit theories related to the malleability of men's sexist attitudes, an initial study was conducted comparing Levy and Dweck's (1997) original *Implicit Theory Measure* with a modified version of their measure specifically designed to assess implicit theories about the malleability of men's sexist attitudes. In order to understand the unique nature of perceptions of malleability for predicting confronting behavior, an understanding of the construct validity of the measure was required. Therefore, a series of established measures related to perceptions of sexism were compared with the implicit theory scales.

Implicit Theory Scales

As discussed in the first chapter, lay theories have been shown to powerfully influence a variety of interpersonal domains (e.g., Rhodewalt, 1994; Dweck, Chui, & Hong, 1995; Heider, 1958; Murphy & Medin, 1985; Medin, & Ortony 1989). Levy and Dweck's (1997) *Implicit Theory Scale* was designed to measure one particular form of lay theory related to the perception of human attributes as either fixed (entity theorists) or malleable (incremental theorists). Their work has shown that

distinguishing between individuals' perceptions of how people are changeable can influence stereotype endorsement among ethnic and occupational groups, such that entity theorists were more likely to endorse both positive and negative stereotypes than were incremental theorists (Levy, et al., 1998). These results can be attributed to differences in how entity theorists and incremental theorists are believed to process information about a target. Entity theorists are believed to pay closer attention to stereotype consistent information and be more likely to reach a particular conclusion about the target faster (Hong, Chiu, Dweck, & Sacks, 1997; Plaks, et al., 2001; 2005).

In order to understand how these processes might operate from the perspective of a target of stereotyping, it was important to include the original eight-item scale (referred to hereafter as the General Implicit Theory Measure) because it is possible that knowing a person's overarching view of people as changeable or unchangeable might be sufficient to predict their behavior across all processing domains. I also wanted to generate a parallel set of questions that would more directly assess perceptions of malleability within the specific domain of a female target's perspective on men's sexist attitudes because it seemed plausible that a more specific measure, designed for target-to-perpetrator perception, would be a better predictor of confronting behavior.

In order to transform the original scale into a sexism specific scale the four items on the general implicit theory scale that were worded to reflect the endorsement of an entity theory (e.g. The kind of person someone is, is something basic about them, and it can't be changed very much) were modified to specifically address perceptions of the fixed nature of men's attitudes about women (e.g. How sexist a

man is, is something basic about him, and it can't be changed very much).

Similarly, the four items from the original scale that were worded to endorse the

malleable nature of an individual (e.g. Everyone, no matter who they are, can

significantly change their basic characteristics) were modified to be specifically

related to perceptions of men's sexist attitudes as malleable (e.g. All men, no matter

who they are, can significantly change how sexist they are). The complete *General*

Implicit Theory Scale and the modified *Sexist Attitude Implicit Theory Scale* are

presented in Appendix A and B. An effort was made to maintain the sentence

structure of the original items in order to closely match the intended constructs.

Seven other scales were chosen that all purportedly measure aspects of

women's perceptions of sexism and sexist behavior. These scales were compared to

the original Implicit Theory measure constructed by Levy and Dweck (1997), and to

the modified version of the scale that I have created.

Comparative Scales

I correlated the GITM and SITM measures with each of the seven scales to

show the shared variance with the implicit measures independently. The scales were

also examined with the two versions of the implicit theory measures simultaneously

in order to show the predicted unique contribution of the sexism specific implicit

measure. Finally, a regression model was run with both implicit theory measures and

the seven sexism scales predicting a measure of changeability. It was predicted that

the implicit theory measures would contribute the most predictive validity, over and

above the other seven scales.

The first scale to be compared with perceptions of malleability was Glick and Fiske's (1996; 1999) *Ambivalence Toward Men Inventory*. The scale measures two aspects of women's beliefs about men. Ten items assess Hostility toward men, and ten items measure Benevolence toward men. The hostile beliefs include the belief that men are prejudiced against women. One of the strengths of this scale is its ability to assess both positive and negative beliefs about men and the positive and negative beliefs are positively correlated with each other. The endorsement of stereotypes about men was predicted to be related to a more entitative conception of men. This hypothesis was based on the notion that expecting men to be less sexist might serve as an indication that they are capable of change. In other words, less sexist men serve as evidence that change is possible. For women who perceive men to be more sexist this evidence of change is less, and therefore they should be more likely to believe that men's sexist attitudes are more fixed. It was predicted that this relationship would occur for the endorsement of hostile beliefs because they include beliefs about how prejudiced men are and for benevolent beliefs because they are theoretically and empirically related to hostile beliefs.

The second scale included in the study was Oneil and colleagues' (Oneil, Egan, Owen & Murry, 1993) *Personal-Professional Activism* Sub-scale of their *Gender Role Journey Measure*. This thirteen-item scale represents a measure of endorsing the act of personally confronting sexism and reducing gender restriction, and committing to social and political action in response to sexism. These constructs are related to the authors' assessment of how women interact with discrimination, and specifically how a transition toward gender discrimination awareness can be assessed.

It was proposed that a greater endorsement of actively changing sexism and sexist attitudes should be related to a belief that men are capable of change.

The third scale included in the analyses was a short form of the *Sex-Role Egalitarianism Scale* by King and King (1990; 1997). The twenty-five item scale is designed to measure attitudes toward gender equality in several domains including marital, parental, employment, social, and educational. The Sex-Role Scale was designed to assess the egalitarian acceptance of women in traditionally male roles, and of men in traditionally female roles. It was hypothesized that greater acceptance of cross-gender roles should be related to an expectation that men can be malleable in their perceptions of roles and thus malleable in other aspects of their gender related attitudes.

The fourth scale was Scheier and Carver's (1985) *Optimism Scale*. This ten item scale is designed to measure dispositional optimism. It has often been used to assess optimism as it related to various health outcomes, but recently researchers have begun to investigate the influence that positive and negative general attitudes about the future might have on perceptions of discrimination, and interpersonal relationships (G. Sechrist, personal communication, 2005). It was hypothesized that higher levels of general optimism might be related to expectations that men's sexist attitudes are changeable. The logic behind this argument is based on the assumption that perceiving men as unchangeable and sexist relegates the perceiver to acknowledge a future filled with sexist encounters. On the other hand, if one believes that men have the capacity to change, then encountering sexism does not necessarily preclude future encounters free from gender discrimination.

Pinel's (1999) construct of *Stigma Consciousness* is defined as the extent to which targets expect to be stereotyped. Her work has shown that women who are more stigma conscious are more likely to make attributions to prejudice and are more likely to confront sexism (Pinel 2002; 2004). It is my contention that perceptions of men's attitude malleability will be unrelated to expectations about the likelihood that a man will act in a sexist manner. The belief that men are changeable or unchangeable should be related to expectations about how malleable their attitudes are, rather than expectations about the specific nature of their behavior toward women. Therefore, it is expected that these constructs should be unrelated.

The sixth scale included in the study was the *Modern Sexism Scale* (Swim, Aikin, Hall & Hunter, 1995). The Modern Sexism scale is used as a measure of subtle sexist attitudes. The scale's construction and conceptualization is based on the idea that social forces have mollified the extent to which blatantly sexist attitudes are made public. Though sexist attitudes are less obvious than they were several decades ago, the modern sexism scale is designed to assess the sexist attitudes that still pervade society. Further, the authors contend that though these attitudes are more subtle, they can still greatly influence interpersonal perceptions and interactions. Five items from the scale that specifically assess the prevalence of sexism were included to see if women's perceptions of men's attitude malleability are related to perceptions of the prevalence of sexism. It was predicted that these scales would be unrelated.

Konoff and Landrine's (1995) *Schedule of Sexist Events* was designed to assess the frequency with which women experience sexism. The nineteen items from the scale assess the frequency of experiencing sexism across a variety of domains,

including at work, school, and home, and from a variety of perpetrators, including family members, close acquaintances, and strangers. As with Stigma Consciousness, and the Modern Sexism subscale, the Schedule of Sexist Events scale was not expected to be related to perceptions of the malleability of men's sexist attitudes.

Method

Participants

297 women were recruited through the Psychology Department Subject Pool to complete an on-line survey titled "Theory Evaluation Study". Participants who completed the survey in less than 15 minutes, or took longer than 2 hours to finish were removed from the analyses. This criterion for inclusion was based on the assumption that responses outside these parameters did not represent a reasonable response time, given the number of items to be completed. 76 participants were dropped and the remaining 221 women were included in the analyses.

Procedure

Participants completed all measures using an on-line web survey. After participants signed up for the study they were directed to a web address containing the informed consent form. If they agreed to participate they were directed to the actual survey. The first part of the survey contained the sexism implicit theory

measure and the general implicit theory measure[1]. The remaining seven scales

were presented in the following order Stigma Consciousness Scale, Schedule of

Sexist Events, Personal-Professional Activism, Modern Sexism Scale (select items),

Ambivalence Toward Men Scale, Sex-Role Egalitarianism Scale, and the Optimism

Scale. All of these scales are presented in order in Appendix C. After completing all

of the scales the participants were directed to a web page containing a debriefing

statement.

Results

All questionnaires were rated by the participants on a 7-point scale, with the

end points labeled "+3 Strongly Agree" and "-3 Strongly Disagree", and the midpoint

labeled, "0 Neither Agree nor Disagree". Prior to analysis all of the items from the

questionnaires were recoded as necessary to ensure that the responses within a

particular measure shared the same valence. Each of the scales was then analyzed

independently to check for emergent factor structures and to check for the inter-scale

reliability. Three structural equation models were created to test the relationship

between each scale and (a) the sexism implicit theory measure, (b) the general

implicit theory measure, and (c) both implicit theory measures simultaneously.

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[1] Haslam's Entitivity scale was also included, but because the items failed to load together they were dropped from the analyses. A fuller consideration of this matter is discussed below.

Implicit Theory Measures: The eight items from the General Implicit Theory

Measure (GITM) and the eight items from the Sexism Implicit Theory Measure

(SITM) were entered into a principle components analysis to check for emergent

factor structure. Two factors emerged, one represented by the eight SITM items and

one represented by the eight GITM items. The two scales were also examined

independently. The resulting scree plot for the GITM showed evidence in support of

a single factor solution, with the single factor accounting for 62.4% of the variance

within the items. The items also showed strong reliability as a factor (α = .913, 8

items, $\underline{N}$ = 220, $\underline{M}$ = 0.30[2], $\underline{SD}$ = 1.24). The SITM's scree plot also indicated a single

factor solution was appropriate, with 69.2% of the variance within the items

accounted for by one factor. These eight items also showed strong reliability as a

factor (α = .936, $\underline{N}$ = 215, $\underline{M}$ = 0.81[3], $\underline{SD}$ = 1.29). The eight items from the GITM

and the eight items from the SITM were entered into a model, and the correlation

between the two latent factors was highly significant ($\underline{r}$ = .713). The factor solutions

for all nine scales discussed in this section are presented in Table 1 (page 36).

Ambivalence Toward Men Inventory: The twenty items from the Ambivalence

Toward Men Inventory were entered into a principle components analysis to explore

an anticipated two factor solution, and an examination of the scree plot revealed this

to be the case. Orthogonal rotation of the factors, using Varamax rotation, resulted in

a clear distinction between factor 1 (items 1, 3, 5, 7, 10, 12, 13, 16, and 20) and factor

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[2] Items were coded for the GITM such that higher numbers indicated endorsement of a more
incremental conception.
[3] The SITM was also coded such that higher numbers indicated an incremental conception.

2 (items 2, 4, 6, 8, 9, 11, 14, 15, 17, and 19). Factor 1 items are consistent with the

authors' construct of *benevolence toward men*, and factor 2 items represent their

hostility toward men construct. Confirmatory factor analysis using AMOS software

was used to compare the single factor solution with the two factor solution. The

change in Chi-square model fit indices from the single factor solution (χ^2 (170, $\underline{N}$ =

221) = 726.87, $\underline{p}$ < .001) to the two factor solution (χ^2 (169, $\underline{N}$ = 221) = 383.77, $\underline{p}$ <

.001) was significant ($\Delta\chi^2$ (1) = 343.10, p < .001) indicating that the two factor model

better represented the data. The Chronbach's Alpha for the first factor was .825 (10

items, $\underline{N}$ = 215, $\underline{M}$ = -0.79, $\underline{SD}$ = 1.02), and .817 (10 items, $\underline{N}$ = 218, $\underline{M}$ = -0.03, $\underline{SD}$ =

0.96) for the second factor.

The two factors were entered into a model with the SITM as the predictor.

Both the path between the Benevolence ($\underline{B}$ = 0.23, $\underline{SE}$ = 0.06, $\underline{p}$ = .001) and the

Hostility ($\underline{B}$ = 0.22, $\underline{SE}$ = 0.06, $\underline{p}$ = .001) factors and SITM were significant. The

second model showed a similar relationship between the GITM and the two factors

($\underline{B}_{Benevolence}$ = 0.22, $\underline{SE}$ = 0.06, $\underline{p}$ = .001, $\underline{B}_{Hostility}$ = 0.14, $\underline{SE}$ = 0.06, $\underline{p}$ = .009). Finally,

the third model with the GITM and SITM simultaneously predicting the three factors

resulted in a significant relationship between the SITM and the Hostility factor ($\underline{B}$ =

0.23, $\underline{SE}$ = 0.08, $\underline{p}$ = .006), and a marginally significant relationship between the

SITM and the Benevolence factor $\underline{B}$ = 0.15, $\underline{SE}$ = 0.09, $\underline{p}$ = .091). The GITM was not

a significant predictor of either factor ($|\underline{B}\text{'s}|$ < 0.11, p's > .19).

Personal-Professional Activism: The initial analysis of the thirteen activism items

revealed that one item (# 13) did not fit with the other twelve items (possibly due to

the fact that this was the only item on the scale that conceptually garnered

responses that were opposite in valence to the other items). A single factor solution

emerged for the remaining 12 items with a Chronbach's Alpha equaling .915 (12

items, $\underline{N}$ = 210, $\underline{M}$ = 0.21, $\underline{SD}$ = 1.07). As with Optimism, Activism predicted both

the GITM and SITM simultaneously. The GITM was negatively related to level of

activism ($\underline{B}$ = -0.242, $\underline{SE}$ = 0.084, $\underline{p}$ = .004), and the SITM was also negatively

related to activism ($\underline{B}$ = -0.265, $\underline{SE}$ = 0.072, $\underline{p}$ < .001), indicating that higher levels of

activism were related to a more incremental perception of people in general, and of

men's sexist attitudes.

Sex-Role Egalitarianism Scale: The twenty-five items from the Sex-Role

Egalitarianism Scale were entered into a principle components analysis to explore the

factor solution. An examination of the scree plot revealed evidence of a three factor

solution. Orthogonal rotation of the factors, using Varamax rotation, resulted in a

clear distinction between factor 1, questions related to equal opportunity in education

and employment (items 1, 2, 3, 9, 13, 15, 17, 21, 22, 24, and 25, $\underline{\alpha}$ = .858, $\underline{N}$ = 216, M

= 2.62, SD = 0.57), factor 2, questions related to family roles (items 4, 5, 6, 7, 8, 14,

16, 19, and 20, $\underline{\alpha}$ = .862, $\underline{N}$ = 213, $\underline{M}$ = 2.03, $\underline{SD}$ = 0.94), and factor 3, questions

related to social roles (items 10, 11, 18, and 23, $\underline{\alpha}$ = .549, $\underline{N}$ = 218, $\underline{M}$ = 0.52, $\underline{SD}$ =

1.17). One item failed to distinctly load on a single factor (item 12) and was dropped

from the analyses.

Confirmatory factor analysis using AMOS software was used to compare the

single factor solution with the three factor solution. The change in Chi-square model

fit indices from the single factor solution (χ^2 (252, $\underline{N}$ = 221) = 719.24, $\underline{p}$ < .001) to

the three factor solution (χ^2 (249, $\underline{N}$ = 221) = 562.22, $\underline{p}$ < .001) was significant ($\Delta\chi^2$

(3) = 157.03, $\underline{p}$ < .001) indicating that the three factor model better represented the

data.

Next, the three factors were entered into a model with the SITM as the

predictor. Only the path between the social roles factor and SITM was significant ($\underline{B}$

= -0.12, $\underline{SE}$ = 0.05, $\underline{p}$ = .015). The second model showed a similar relationship

between the GITM and the third factor ($\underline{B}$ = -0.12, $\underline{SE}$ = 0.05, $\underline{p}$ = .016) with no

significant pathways for the other two factors. Finally, the third model with the

GITM and the SITM simultaneously predicting the three factors resulted in no

significant relationships ($\left| \underline{B}\text{'s} \right|$ < 0.02, $\underline{p}$'s > .2).

Optimism Scale: A single factor was also found for the Optimism Scale (α = .821, 10

items, $\underline{N}$ = 202, $\underline{M}$ = 0.52, $\underline{SD}$ = 1.13). The model for the GITM predicting Optimism

resulted in a significant path ($\underline{B}$ = -0.110, $\underline{SE}$ = 0.055, $\underline{p}$ = .047), indicating that

women who believe that people are less changeable are less optimistic. The model

for the SITM predicting Optimism resulted in a significant path ($\underline{B}$ = -0.150, $\underline{SE}$ =

0.063, $\underline{p}$ = .017), indicating that women who believe that men's sexist attitudes are

less changeable are less optimistic. Both pathways were found to be significant when

Optimism was predicted by both the GITM and SITM simultaneously. The GITM ($\underline{B}$

= -0.236, $\underline{SE}$ = 0.116, $\underline{p}$ = .042), and the SITM ($\underline{B}$ = -0.240, $\underline{SE}$ = 0.100, $\underline{p}$ = .016),

indicating that more entitative perceptions of people in general and of men's sexist

attitudes predicted lower levels of optimism even when controlling for the

influence of each predictor.

Stigma Consciousness: The ten items from the Stigma Consciousness Scale were

entered into a principle components analysis to explore the anticipated single factor

solution. An examination of the scree plot revealed evidence of a two factor solution.

Orthogonal rotation of the factors, using Varamax rotation, resulted in a clear

distinction between factor 1 (represented by items 1 through 7) and factor 2 (items 8,

9, and 10). Confirmatory factor analysis using AMOS software was used to compare

the single factor solution with the two factor solution. The change in Chi-square

model fit indices from the single factor solution (χ^2 (35, $\underline{N}$ = 221) = 112.61, $\underline{p}$ < .001)

to the two factor solution (χ^2 (34, $\underline{N}$ = 221) = 68.00, $\underline{p}$ < .001) was significant ($\Delta\chi^2$ (1,

$\underline{N}$ = 221) = 44.61, $\underline{p}$ < .001) indicating that the two factor model better represented the

data. The Chronbach's Alpha for the first factor was .754 (7 items, $\underline{N}$ = 216, $\underline{M}$ =

0.74, $\underline{SD}$ = 1.04), and .574 (3 items, $\underline{N}$ = 220, $\underline{M}$ = 0.43, $\underline{SD}$ = 0.98) for the second

factor.

The two Stigma Consciousness factors were entered into a model with

General Implicit Theory as the predictor. No significant relationships were found

(The results for all analyses are presented in Table 2, on page 37). A second model,

with the SITM replacing the GITM did find a significant relationship for only the

second factor ($\underline{B}$ = -.170, $\underline{SE}$ = .065, $\underline{p}$ = .010). Next the two Stigma Consciousness

factors were entered into a model simultaneously predicted by the GITM and the

SITM. The factor containing three items was significantly related to the SITM ($\underline{B}$ =

0.253, $\underline{SE}$ = 0.100, $\underline{p}$ = .011), even when controlling for the influence of the General measure. No other pathways were significant.

Modern Sexism Scale: A single factor emerged for the five Modern Sexism items, and the scale resulted in a Chronbach's Alpha of .768 (5 items, $\underline{N}$ = 220, $\underline{M}$ = 1.15, $\underline{SD}$ = 1.00). As with the previous model, no significant relationships with the GITM or SITM were observed ($|\underline{B}$'s$|$ < .06, $\underline{p}$'s > .5).

Schedule of Sexist Events: Principle components analysis was employed to explore the anticipated single factor solution. An examination of the scree plot revealed evidence of a single factor solution for the nineteen item scale. The Chronbach's Alpha for the single factor was .921 (19 items, $\underline{N}$ = 214, $\underline{M}$ = -1.92, $\underline{SD}$ = 0.62).

Three similar models were run, substituting the Schedule of Sexist Events items for Stigma Consciousness. No significant relationships were observed ($\underline{B}$'s < -0.03, $\underline{p}$'s > .5).

In addition to the analysis discussed above, which examined the individual relations between the scales and the SITM and GITM, a regression was run using all nine measures with a single item outcome variable. An additional scale based on Haslam's Entitativity scale was included in the study, but the items from the scale failed to load together in a consistent manner[4]. One of the items in particular captures the intended essence of the SITM; "Some people think that it is not easy for sexist

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[4] A full discussion of this scale is presented in Chapter 6.

men to change their beliefs and become non-sexist. Other people think that it is

easy for sexist men to change their beliefs and become non-sexist. Which best

describes what you think?" The item was rated on a 1 (not easily changed) to 9

(easily changed) scale ($\underline{X}$ = 4.46, $\underline{SD}$ = 1.64). This item was included as the

dependant variable, and the nine scales, with a total of twelve individual factors were

entered as predictors. The results are presented in Table 3 (page 38). Only the

Benevolent subscale of the Ambivalence toward Men Scale, the GITM and SITM

were significant when all of the scales were entered. An examination of the partial

correlations reveals that the SITM is explaining the largest portion of the unshared

variance, and the GITM is explaining slightly less. Taken together these two

constructs are explaining 24.6% of the variance for this item that the other scales

cannot explain.

<div align="center">Discussion</div>

In order to explore the nature of the new Sexism Implicit Measure it was

important to understand how it relates to other, existing measures. The eight items

loaded together strongly, lending credence to the idea that a single construct is

evident in the relationship between the questions. Additionally, it was important to

note how the SITM compared to the original measure created by Dweck and Levy.

The strong correlation between the measures indicates that the measures are sharing

about half of their variance.

The *Ambivalence Toward Men Inventory* (Glick & Fiske, 1996) measures women's beliefs about men on a hostile and a benevolent dimension. The endorsement of hostile beliefs about men, and potentially, by extension benevolent beliefs as well, were predicted to be related to a more entitative conception of men. When entered independently both the GITM and the SITM were significantly related to both the hostile and benevolent factors. When model three was examined, only the SITM emerged as a predictor. The SITM was a significant predictor of the Hostility factor, and a marginally significant predictor of the Benevolence factor when controlling for the influence of the general measure. Thus, it seems plausible that the unique variance of the SITM is explaining the levels of women's beliefs of men. Women who believe that men are more unchangeable are also likely to endorse hostile beliefs, which include beliefs that men are prejudiced (and to a lesser degree, benevolent stereotypes).

The *Personal-Professional Activism* Sub-scale of their *Gender Role Journey Measure* (Oneil, Egan, Owen & Murry, 1993) represents a measure of endorsing the acts of personally confronting sexism and reducing gender restriction, and committing to social and political action in response to sexism. It was proposed that a greater endorsement of actively changing sexism and sexist attitudes should be related to a belief that men are capable of change. Consistent with this hypothesis, the SITM was predictive of activism, even when controlling for the influence of the GITM. Thus, beliefs that men's sexist attitudes are changeable are related to taking more action to change sexism. This finding is directly related to the foundational

hypothesis that confronting is more likely to occur when it is believed to have some chance of changing men's nature.

The *Sex-Role Egalitarianism Scale* (King & King, 1990; 1997) is designed to measure attitudes toward gender equality in the domains of marital relationships, parental relationships, employment, social environments, and education. It was hypothesized that greater acceptance of cross-gender roles should be related to an expectation that men can be malleable in their gender related attitudes. Only one factor (Social Roles) was related to the predictors. An examination of the means for each factor offers a possible explanation for the lack of effect for the other two factors. Both the Equal Opportunity factor and the Family Roles factor had means very close to the strongly agree endpoint, indicating that on average the women in the sample strongly believed that men and women should share familial, education, and employment opportunities. It is likely that only the Social Role factor, with a mean closer to the midpoint of the scale, had sufficient variability to be influenced by the predictors.

As with the findings for the optimism scale, both the SITM and GITM were significantly related to the Sex-Role scale when entered independently. Neither measure was related when they were entered simultaneously, indicating that the shared variance of the two measures is possibly explaining the relationship.

The *Optimism Scale* (Scheier & Carver, 1985) is designed to measure dispositional optimism. It was hypothesized that higher levels of general optimism might be related to expectations that men's sexist attitudes are changeable based on the assumption that perceiving men as unchangeable and sexist relegates the

perceiver to acknowledge a future filled with sexist encounters. The results

indicate that beliefs about the malleability of men's attitudes and beliefs about the

malleability of people in general are related to optimism, such that more incremental

perceptions lead to greater optimism. When both the SITM and GITM are entered

together neither effect attains significance. This indicates that it is likely the shared

variance of the two measures is explaining the individual effects.

      Pinel's (1999) construct of *Stigma Consciousness* is defined as the extent to

which targets expect to be stereotyped. It was anticipated that perceptions of men's

attitude-malleability would be unrelated to expectations about the likelihood that a

man will act in a sexist manner. Contrary to my expectations, the second factor was

significantly predicted by the SITM. The items from this factor (#'s 8, 9, and 10;

found in Appendix C) appear to be conceptually related to perceptions of men's

attitudes. The remaining items, comprising the other factor, are more related to

conceptions of the self-as-woman in the process of interacting with men. In light of

this proposed distinction the relationship with the SITM makes intuitive sense.

Additionally, because the SITM was a significant predictor of the "male attitude"

component of the Stigma Consciousness scale, even when controlling for the highly

related GITM, it can be said, with due caution, that women who view men's sexist

attitudes as more fixed also see men as being more likely to stereotype women.

      Because the scale loaded on 2 distinct factors, an unexpected finding, and

because the reliability measure for the second factor was not particularly strong ($\alpha <$

.60, see for example, Nunnally, 1978), some caution is needed in interpreting these

results. It is possible that the items comprising the factor found to be related to the

SITM are not a distinct factor, but rather an anomaly. Because the Stigma Consciousness Scale is a widely accepted construct the single factor solution was also entered into the three models. In these analyses no significant relationships were found.

The *Modern Sexism Scale* (Swim, Aikin, Hall & Hunter, 1995), a measure of subtle sexist attitudes, was also unrelated to both the GITM and the SITM. Women's perceptions of men's attitude-malleability did not differ between those who endorse sexist attitudes and those who endorse more gender egalitarian beliefs.

The *Schedule of Sexist Events* (Konoff and Landrine's, 1995) was designed to assess the frequency with which women experience sexism. The scale assesses the frequency of experiencing sexism across a wide range of situations. Consistent with my predictions, the Schedule of Sexist Events scale was not related to perceptions of the malleability of men's sexist attitudes, nor was it related to general beliefs about the malleability of people. It is possible that someone who has had more exposure to sexism may have stronger implicit beliefs about the nature of sexist attitudes, but I contend that this does not necessarily mean that the direction of those beliefs (either entity or incremental) will be predictable.

This chapter has been presented in an effort to illuminate the constructs at work in a new measure of women's perceptions of men's attitudes. Taken in sum the results support the idea that implicit theories related to general character malleability, and specifically related to the malleability of men's sexist attitudes are constructs that can provide unique information about the perception processes that women experience when they encounter sexist men. The regression analysis using all of the

scales showed that, even when such a large number of predictors are present, the malleability scales can provide unique information. The item chosen as the dependent variable for this analysis is directly related to changing a man, so it may seem as though the "game is rigged". It is not the intention of this research to imply that implicit theories about malleability are the only predictor required to understand women's perceptions of men. Rather, it is my contention that this aspect of the perception process can have important consequences under circumstances where the motivation behind a woman's response to a man is for the purpose of changing his sexist attitudes.

Study 2 presented in the next chapter, was designed to examine how women's endorsement of either an incremental or entity perspective of the malleability of men's sexism is related to confronting responses. Having established a construct base for the SITM and GITM it is important to see how these measures are related to confronting, and to explore how the process of moving from implicit theory to behavioral outcome will operate.

Table 1 – Study 1 – Scale Exploration of Factor Loadings

		Initial Eigenvalues	% of Variance	Chronbach's Alpha	N
GITM		5.00	62.45	.913	220
SITM		5.54	69.21	.936	215
Amb-Ben		5.37	25.37	.825	215
Amb-Host		2.69	15.02	.817	218
Activism		6.31	48.57	.899	204
SxRol-Tot		8.45	33.79	.887	204
	SxRol-Educ	8.15	33.97	.858	216
	SxRol-Fam	2.03	8.45	.862	213
	SxRol-Soc	1.52	6.32	.549	218
Optimism		4.09	40.89	.821	195
SC-10		3.31	33.02	.748	216
	SC-Self-A	3.31	33.02	.754	209
	SC-Men-A	1.51	15.07	.574	220
ModSex		2.66	53.23	.768	213
ScSxEv		8.26	43.45	.921	214

Note. GITM = General Implicit Theory Measure, SITM = Sexism Implicit Theory Measure, AmbHost = Ambivalence toward Men-Hostility Subscale, AmbBen = Ambivalence toward Men-Benevolence Subscale, Activism = Personal-Professional Activism Subscale, SxRol_Total = Complete 25 item Sex Role Egalitarianism Scale, SxRol_Ed = 11 item Education-Sex Role Egalitarianism Subscale, SxRol_Fam = 9 item Family-Sex Role Egalitarianism Subscale, Sx Rol_Soc = 4 item Social-Sex Role Egalitarianism Subscale, Optimism = Optimism Scale, Sc_10 = complete 10 item Stigma Consciousness Scale, SC-Self-A = 7-item Stigma Consciousness Self-awareness Subscale, SC-Men-A = 3 item Stigma Consciousness Men's Attitude Subscale, ModSex = Modern Sexism Scale (5 item version), ScSxEv = Schedule of Sexist Events.
* p < .05, ** p < .01, *** p < .00

Table 2 – Study 1 – Bivariate & Partial Correlations between Implicit Theory Measures and Sexism Scales

	GITM		GITM (SITM)		SITM		SITM (GITM)	
	r	N	Partial r	N	r	N	Partial r	N
SITM	.643***	214	--	--	--	--	--	--
AmbHost	.186**	217	.028	211	.287***	212	.205**	211
AmbBen	.255***	214	.097	208	.276***	209	.160*	208
Activism	-.195**	209	-.018	204	-.274***	205	-.198**	204
SxRol_Total	-.172*	210	-.077	204	-.169*	205	-.081	204
SxRol_Ed	-.111	215	-.021	209	-.138*	210	-.092	209
SxRol_Fam	-.133†	212	-.058	206	-.123†	207	-.060	206
SxRol_Soc	-.240***	217	-.141*	211	-.219**	212	-.082	211
Optimism	-.114	201	-.022	195	-.135†	196	-.091	195
SC_10	-.055	215	-.109	210	.074	210	.119†	210
SC-Self-A	-.083	215	-.098	209	.012	210	.066	209
SC-Men-A	.041	219	-.079	213	.184**	214	.184**	213
ModSex	-.014	219	-.051	213	.066	214	.082	213
ScSxEv	-.045	213	-.016	208	-.049	209	-.031	208

Note. Items in parentheses have been partialed out. GITM = General Implicit Theory Measure, SITM = Sexism Implicit Theory Measure, AmbHost = Ambivalence toward Men-Hostility Subscale, AmbBen = Ambivalence toward Men-Benevolence Subscale, Activism = Personal-Professional Activism Subscale, SxRol_Total = Complete 25 item Sex Role Egalitarianism Scale, SxRol_Ed = 11 item Education-Sex Role Egalitarianism Subscale, SxRol_Fam = 9 item Family-Sex Role Egalitarianism Subscale, Sx Rol_Soc = 4 item Social-Sex Role Egalitarianism Subscale, Optimism = Optimism Scale, Sc_10 = complete 10 item Stigma Consciousness Scale, SC-Self-A = 7-item Stigma Consciousness Self-awareness Subscale, SC-Men-A = 3 item Stigma Consciousness Men's Attitude Subscale, ModSex = Modern Sexism Scale (5 item version), ScSxEv = Schedule of Sexist Events. †p < .09, *p < .05, **p < .01, ***p < .001.

Table 3 – Study 1 – Multiple Scale Regression Results

	Beta	S.E.	Standardized Beta	t	P value	Partial Correlation
Constant	4.711	1.750		2.693	.008	
GITM	-.265	.112	-.202	-2.367	.019	-.189
SITM	-.439	.110	-.350	-3.983	.000	-.307
AmbHost	-.207	.153	-.125	-1.352	.178	-.109
AmbBen	.321	.140	.198	2.299	.023	.183
Activism	.102	.115	.068	0.884	.378	.072
SxRolEd	.092	.228	.034	0.405	.686	.033
SxRolFam	-.057	.164	-.033	-0.348	.728	-.028
SxRolSoc	-.012	.106	.009	-0.113	.910	-.009
Optimism	.189	.100	.136	1.893	.060	.152
SC-Self-A	-.001	.112	-.001	-0.009	.993	-.001
SC-Men-A	-.118	.131	-.073	-0.905	.367	-.073
ScSxEv	.144	.208	.055	0.692	.490	.056
ModSx	.106	.125	.069	0.845	.400	.068

Note. GITM = General Implicit Theory Measure, SITM = Sexism Implicit Theory Measure, AmbHost = Ambivalence toward Men-Hostility Subscale, AmbBen = Ambivalence toward Men-Benevolence Subscale, Activism = Personal-Professional Activism Subscale, SxRol_Ed = 11 item Education-Sex Role Egalitarianism Subscale, SxRol_Fam = 9 item Family-Sex Role Egalitarianism Subscale, Sx Rol_Soc = 4 item Social-Sex Role Egalitarianism Subscale, Optimism = Optimism Scale, SC-Self-A = 7-item Stigma Consciousness Self-awareness Subscale, SC-Men-A = 3 item Stigma Consciousness Men's Attitude Subscale, ModSex = Modern Sexism Scale (5 item version), ScSxEv = Schedule of Sexist Events.

Chapter 3

Study 2

Study 2 is intended to identify how differences in women's endorsement of entity versus incremental conceptions of the nature of sexist beliefs will influence women's estimated likelihood of confronting. I have proposed that one explanation for women confronting sexism is to try to change the attitudes and behaviors of the perpetrator. Though this is not assumed to be the only reason for confronting, it is believed that in certain circumstances this motive might influence the chances that a woman would "bother" to correct inappropriate behavior. Implicit theories about the malleability of men's attitudes are proposed to be the underlying mechanism that will determine the outcome of this process. Women who believe that sexism is very difficult to change are not expected to apply this motive. Conversely, women who believe that men's sexist attitudes are changeable may attempt to confront a man in the hopes that by doing so they can impose such a change.

Study 2 is also designed to test whether the relation between sexism implicit theories and confronting endorsement is mediated by perceived response efficacy. A

woman's belief that men's sexist attitudes are changeable does not necessarily

imply a belief that she has the ability to cause that change.

Two measures of women's implicit beliefs were assessed in Study 2. First, it

was proposed that a modified version of Levy and Dweck's implicit theory scale

(1997, as sited in Chiu, Hong, & Dweck, 1997), specifically designed to measure

beliefs about sexism will provide a viable means of measuring individual differences

in implicit theory endorsement. I have developed this scale to identify those women

who believe that men's sexist attitudes are either changeable or unchangeable (see

chapter 2 for a discussion of the scale development; see Appendix A for a copy of the

scale).

Second, in addition to the sexism implicit theory measure (SITM), the general

implicit theory measure (GITM) (Levy & Dweck, 1997) will also be included (see

Appendix B). It is proposed that the general theory will predict the more domain-

specific theory.[5]

The question of interest for Study 2 is how implicit theories related to the

malleability of men's sexist attitudes will influence the likelihood of endorsing

confronting behavior. It has been proposed that simply believing that men are

changeable will not be sufficient for inducing a woman to try to change a man's

attitude. Rather, it is the belief that men are changeable that will influence the belief

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[5] A third measure was also included that was intended to represent a sexism specific version of Haslam's essentialism scale (Haslam, Rothschild, & Ernst, 2000). The nine items from the original scale were modified to address perceptions of sexist men, but were worded as closely as possible to the original items in order to preserve construct validity. Due to inconsistent factor loadings across the four studies presented in this paper, the scale was dropped. A full consideration of this scale is presented in Chapter 6.

that the woman has the ability to make that change. Specifically, those women

who believe that sexism is a changeable attitude construct will be more likely to

believe that they have the means to effect change, and should therefore endorse

confronting sexist behavior. On the other hand, women who see men's sexist

attitudes as more fixed or unchangeable are less likely to endorse confronting because

they will not have any expectation of making an impact on the man's attitude. This

belief that one has the ability to effect change has been defined as response efficacy,

and it is response efficacy that is proposed to directly influence confronting behavior.

Method

Participants

     199 women were recruited through the Psychology Department Subject Pool

to participate in an on-line survey. Participants who had completed Study 1 were not

eligible to participate. As with Study 1, participants who completed the survey in less

than 15 minutes, or took longer than 2 hours to finish were removed from the

analyses. 49 participants were dropped and the remaining 150 women were included

in the analyses.

Procedure

Participants completed all measures using an on-line web survey. After participants signed up for the study they were directed to a web page containing the informed consent form. If they agree to participate they were directed to the actual survey. The first part of the survey contained the SITM and the GITM. Next participants were directed to a series of six scenarios that described different hypothetical instances of a man behaving in a sexist manner.

A pilot study had been conducted to choose scenarios that varied in how sexist they were perceived to be. In the pilot study, twenty-eight women each rated nineteen scenarios for how sexist they thought the man in the situation was, and how sexist they thought that the man's behavior had been. The two scenarios that were rated as the most sexist, two scenarios that were rated as the least sexist, and two scenarios that were rated in the middle were chosen to be included in Study 2.

Six scenarios were included for several reasons. First, that number was chosen in order to ensure that sufficient variability in the judgments of sexism was achieved. Second, including three levels of severity of sexism reduced the likelihood of encountering a ceiling effect for judgments of sexism.

Each scenario described a male who has engaged in a sexist act. One situation was described by the following paragraph, "A woman is at the grocery store and goes to pick up a large case of water. As she bends over to get it, a man comes up behind her and says, 'I'll get that for you hun', and proceeds to put the case of water under her cart for her. Imagine that you are the woman". All six scenarios are presented in Appendix D.

Following each of the scenarios, participants answered questions related to three aspects of their perceptions of the perpetrator and the sexist event. Participants responded to questions related to (a) how prejudiced they believe the perpetrator in the scenario behaved (b) how likely it was that confronting the perpetrator would change his attitude, and (c) how likely it was that the participants would confront the man if they were in that situation. After completion of the survey participants were thanked and directed to a debriefing form.

Measures

Implicit Theory Measures: Participants completed the eight item *Sexism Implicit Theory Measure* (SITM) (Appendix A) using a seven-point likert scale from -3 (Strongly Disagree) to +3 (Strongly Agree). The midpoint was labeled "uncertain". Participants also completed the *General Implicit Theory Measure* (GITM) (Levy & Dweck, 1997) using the same response format (Appendix B).

Perceptions of Sexism: For each scenario participants responded to eight items intended to measure two aspects of the latent construct Perceptions of Sexism. All questions were rated on a seven point scale from "Not at all likely" to "Definitely likely" (see Appendix E). *Perceptions of the Perpetrator's Attitude*: Four questions are designed to assess how sexist the man in the story is perceived to be (e.g. "How likely is (scenario-specific male's name) prejudiced against women?", "How likely is (scenario-specific male's name) sexist?"). An additional item asked how, "threatened would you be by this man?" *Perceptions of the Perpetrator's Behavior*: Two items

measured perceptions of the sexist behavior ("How likely is it that this man would do this again to the same woman (women)", "How likely is it that this man would do this again to a different woman (women)?" A third question asked how, "threatened you would be by this man's behavior?"

Perceptions of Confronting-Response Efficacy: Two aspects of the participants' perceptions of response efficacy were measured. Both explicitly refer to effectiveness-assessments of proposed confronting behavior by the participant, and are thus intended to measure response efficacy and not self-efficacy. The items are adapted from theory on the reasons why people confront discrimination (Hyers, 2002; Crosby, 1993; Feagin & Sikes, 1994; Kaiser & Miller, 2004). The first set of two items was designed to assess the perceived effectiveness that confronting would have for *preventing future sexist behavior* ("How likely do you think that confronting (scenario-specific male's name) would decrease the chances that he would (scenario-specific behavior) again to the same group?" The second item asked the same question for "a different group"). The second set of four items were included to assess how confronting is perceived to be effective for *changing the sexist attitudes of the male* (e.g. "If you confronted (scenario-specific male's name), how likely would confronting decrease the chances that (scenario-specific male's name) would be prejudiced against women?"). Questions were all rated on a seven point scale from "Not at all likely" to "Definitely likely".

Confronting Behavior: Participants were then asked the likelihood that they would employ five different confronting styles if they were in the situation. Specifically,

participants were asked to rate the probability of directly confronting the

perpetrator, questioning the intent of the perpetrator, using humor to confront, and

laughing at the perpetrator's behavior. The participants were also asked to rate the

likelihood that they would make no response. These styles of confronting range from

being directly assertive to less assertive, to non-confrontational (Swim, et al., 1998),

and were chosen to exemplify possible responses in real life situations (Swim, et al.,

2001; Swim & Hyers, 1999). These items were also rated on a seven point scale from

"Not at all likely" to "Definitely likely".

Results

Measured Constructs

Participant responses to the SITM, and the GITM were each examined to

check for item-construct consistency. For both measures the four incremental items

were reverse coded, such that positive numbers indicate more agreement with an

entity theory orientation and negative numbers indicate agreement with an

incremental theory orientation. Research by Dweck and collogues have found

reliable and consistent factor structures for the general Implicit Theory measure, and

for domain specific versions of the measure (Levy, Stroessner, & Dweck, 1998;

Dweck, Chui, & Hong, 1995; Chui, et al., 1997; Gervey, Chui, Hong, & Dweck,

1999). Principle components analysis of the eight GITM items and an examination of

the scree plot, confirmed a single factor solution with the single factor accounting for

61.6% of the variance within the items. The items also showed strong reliability as a factor (α = .910, 8 items, $\underline{N}$ = 149, $\underline{M}$ = 0.03, $\underline{SD}$ = 1.17). The SITM's scree plot also indicated a single factor solution was appropriate, with 75.5% of the variance within the items accounted for by one factor. These eight items also showed strong reliability as a factor (α = .953, $\underline{N}$ = 150, $\underline{M}$ = 0.63, $\underline{SD}$ = 1.35)[6].

In order to test the proposed hypotheses, five latent constructs were conceptualized in the development of this study. Because the items intended to be related to each of these constructs are not from established scales, the question responses were examined on several levels to ensure that they were related as expected. First, because each item was included after each of the six scenarios, a check of the factor loadings and Chronbach's Alphas for the six versions of the same question was conducted. Principal components analysis of the six versions of each question, and an examination of the resulting scree plots indicated a single factor solution for all nineteen questions. The percentage of variance explained and the alphas for these analyses are presented in Table 4 (page 55).

Next, the responses were collapsed across the six scenarios to create a single item average for each question. These averages were then examined together with related items using principle components analysis to check that the predicted latent factor structures emerged. Several items did not load as expected. Within the latent construct of Perceptions of Sexism, the measure of Perceptions of Behavior was proposed to be represented by three questions: "How threatened would you be by the

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[6] The eight items from the GITM and SITM were coded such that positive numbers indicated the endorsement of an incremental perspective and negative numbers indicated an entitative endorsement.

man's behavior", "How likely is it that this man would do this behavior to a different woman", "How likely is it that the man would do this behavior to the same woman". The question related to threat only had a factor loading of .316, indicated that this item was weakly related to the other two items. Additionally, the alpha for the three items was only .412 (3 items, $\underline{N}$ = 144), whereas when this item was dropped from the analyses the alpha reached an acceptable level (α = .735, $\underline{N}$ = 146).

Within the Perceptions of Man construct, one item ("How likely was this man generally fair to women?") failed to show consistency across the scenarios (see Table 4, page 55), and so was not included in the creation of this latent variable. It is likely that because the structure of the wording was the same as the other perceptions of sexism items, but was oppositely valenced relative to the other items, some participants may have had difficulty reconciling their interpretation of the question.

A similar problem occurred with the Efficacy item that asked, "How likely would confronting decrease the chances that the man would be generally fair to women?" The wording of the question was similar to other items (e.g., "How likely would confronting the man decrease the chances that he was sexist?"), but because the conceptual direction of the responses for this question was opposite to the other items some participants may have had difficulty interpreting the question. An examination of the alpha with this item included in the scale (α = .717, 6 items, $\underline{N}$ = 134), and with this item omitted from the scale (α = .917, 5 items, N = 135), support this conclusion. The item was dropped from the analyses.

Finally, analysis of the proposed construct Confronting revealed evidence

of two distinct factors. The first factor was related to the two most direct measures of

confronting (i.e., saying that the man was sexist, asking the man about his behavior).

The second factor was related to the two items that reflected more indirect

confronting behavior (i.e. responding to the man with a joke, laughing at the man).

The fifth measure of confronting (do nothing) failed to show internal reliability across

scenarios (see Table 4, page 55), and thus was not included in further analyses. The

factor loadings and scale alphas for all of the final latent constructs are presented in

Table 5 (page 56).

Model Construction

Seven latent constructs, identified in the previous section were entered into an

initial model using AMOS. The final model is presented in Figure 2. The model

consisted of the GITM items and the SITM items represented by two latent

constructs, with the GITM predicting the SITM. The SITM latent construct predicted

the items from the efficacy construct, the items related to perceptions of the man, the

items related to the perceptions of the man's behavior and the endorsement of

confronting behavior.

Fit indices showed that this initial model was not a good fit with the data (χ^2

$(453) = 816.56$, $\underline{p} < .001$). An examination of the regression weights showed that the

confronting factor related to indirect confronting was not significantly related to any

of the other latent variables. Therefore a second model was constructed with these

items removed. The change in fit indices from model 1 to model 2 was significant

($\Delta\chi^2$ (87) = 181.10, p < .001), indicating that this construct was impeding the

predictive value of the model. An examination of the estimates from model 2

indicated that two items from the efficacy construct (i.e., "If you confronted, how

likely is it that the man would do this behavior again to the same woman?", and "If

you confronted, how likely is it that the man would do this behavior again to a

different woman?") were influencing the latent construct to a lesser extent than were

the other three items. A third model was constructed with these items removed. The

change in fit was highly significant ($\Delta\chi^2$ (53) = 148.82, p < .001). The Chi Square fit

for model 3 (χ^2 (313) = 486.64, p < .001) was still highly significant, but three indices

of practical fit; the Root Mean Square Error of Approximation (RMSEA) (Steiger

1990), the Tucker Lewis Index (TLI) (Tucker & Lewis, 1973), and the Comparative

Fit Index (CFI) (Bentler, 1990) were computed in order to make an assessment of the

model's fit. The resulting fit statistics for Model 3 (RMSEA = 0.061, TLI = 0.931,

and CFI = 0.943) serve as an indication that an acceptable fit has been achieved for

this model.

Model Interpretation

The latent factor structure of the final model (Model 3) is presented in Figure

2 (page 57), but only significant pathways are included to simplify the presentation of

the results. A full list of unstandardized and standardized regression weights are

presented in Table 6 (page 58). As predicted, the path from GITM ($\underline{X}$ = 0.08, $\underline{SD}$ =

1.17) to SITM ($\underline{X}$ = 0.63, $\underline{SD}$ = 1.35) was significant ($\underline{B}$ = 0.83, $\underline{SE}$ = 0.12, $\underline{p}$ <

.001, $\underline{r}$ = .617), such that the endorsement of beliefs about people's malleability was

positively related to the endorsement of beliefs about the malleability of men's sexist

attitudes.

As predicted, the SITM was positively related to efficacy ($\underline{B}$ = 0.08, $\underline{SE}$ =

0.03, $\underline{p}$ = .022). Higher scores on the SITM indicate a greater agreement that men's

sexist attitudes are changeable, and higher scores on the measures of efficacy indicate

a greater belief that confronting can bring about change. Thus the positive

relationship shows that those who endorse an incremental view of men's sexism are

more likely to believe that they could change the man by confronting. Conversely,

those that see men's attitudes as fixed (an entity perspective) are less likely to believe

that confronting can change the man.

The construct of efficacy was positively related to the endorsement of directly

confronting the man ($\underline{B}$ = 0.24, $\underline{SE}$ = 0.11, $\underline{p}$ = .030). Thus, those women who see

confronting as a means to bring about a change in the man's attitude are more likely

to say they would confront. Those women who don't believe that confronting can

lead to any change in the man are less likely to say they would confront.

The SITM was also significantly related to perceptions of the man's behavior

($\underline{B}$ = -0.06, $\underline{SE}$ = 0.03, $\underline{p}$ = .035), such that stronger endorsement of beliefs that men

are changeable is negatively related to beliefs that the man would be likely to perform

the sexist behavior again. The perception of behavior variable was not related to

efficacy or to the endorsement of confronting behavior ($\underline{p}$'s > .5).

The latent construct of perception of the man was significantly related to efficacy ($\underline{B}$ = -0.25, $\underline{SE}$ = 0.11, $\underline{p}$ = .024), and to confronting ($\underline{B}$ = 0.56, $\underline{SE}$ = 0.14, $\underline{p}$ < .001), such that the perception of how sexist the man was negatively predicted how effective confronting would be to change the man, and positively predicted how likely it was that confronting would be endorsed.

It had been proposed that the relationship between sexism implicit theories and confronting behavior would be mediated by efficacy. A Sobel test was conducted following the procedure recommended by Baron and Kenny (1986; Aroian, 1944; cf. Sobel, 1982), by first testing the path between SITM and efficacy, and then testing the path between efficacy and confronting, while controlling for the influence of the SITM. Results of the test of indicate that the mediation was a marginally significant ($\underline{z}$ = -1.784, p = .074).

Because it had been proposed that implicit theories about the malleability of men might moderate the relationship between perceptions of the men and confronting behavior, an additional model was constructed to test this relationship. A latent variable containing the interaction products of the eight SITM items and the four Perceptions of Man items (32 products) was created, and included in a model with the means of the main effect predictors centered (see, e.g. Kenny & Judd, 1984). The model resulted in no significant pathways evident for the interaction term.

Discussion

I predicted that implicit theories of malleability have a role in the process of predicting confronting behavior. This process operates through the individual's assessment of the likelihood that they have the ability to effectively bring about change if they confront. The results indicate that women who believe men's attitudes are changeable also endorse the idea that confronting is an effective means of generating that change (the efficacy construct in the model). Subsequently, those women who believe that they have the ability to change men's attitudes by confronting were more likely to endorse confronting behavior. The finding that the expected mediation was only marginal requires a cautious interpretation of this system of variables. At the very least the influence of implicit theories about sexism are felt in the way in which women perceive their ability to exact change in men, which in turn is predictive of bothering to confront. A more liberal interpretation of the mediation suggests that implicit theories are an important predictor of confronting for the purpose of changing sexist men's attitudes.

As was discussed in Chapter 1, there are several possible reasons that women have given for confronting sexism (Hyers, 2002; Kaiser & Miller, 2004). The principal motive of interest for this study is based on the idea that some women may be likely to confront sexism if they believe that they can educate or change a man's sexist attitudes. The sexism implicit theory-efficacy pathway demonstrates that, as predicted, the perception of malleability has a direct effect on the perception that change is possible. This link directly serves to demonstrate the "why bother" aspect

of the confronting process. In contrast, the negative relationship between perceptions of the man and efficacy shows that other motivations for confronting are also at play in the participant's thinking about the men. Specifically, stronger assessments of the man's sexism indicate less belief that the participant had the ability to change the man. As discussed in Chapter 1, Hyers (2002) found that one of the most common reasons for not confronting sexism in real-life situations was the perception that conflict could result from such behavior, something her participants reported that they often wished to avoid. It is logical that the motivation to educate and the motivation to avoid conflict will be in competition, especially for men who are perceived to be highly sexist. For women who view sexist men as unchangeable (entity theorists) there may be possible reasons for confronting, but expectations about the possibility of generating actual change will not be one of them.

The predictions for Study 2 were based on the findings from previous work examining implicit theories of morality and intelligence (e.g. Chui, et al., 1997; Hong, et al., 2004; Hong, et al., 1997) and of work examining the impact of implicit theories on stereotypes of groups (e.g. Levy & Dweck, 1999; Levy, et al., 1998). To my knowledge, no one has directly examined the interplay of implicit theories and confronting behavior. The research reported above supports the idea that domain specific implicit theories are useful conceptions of people's lay theories about others. Study 2 was intended to extend this existing research.

In line with the proposal that the sexism implicit theory measure provides insight into a unique and important part of the person perception process, the finding

that the measure is unrelated to perceptions of men's sexist attitudes makes intuitive sense. Although women who are more sensitive to sexism should be more likely to expect and recognize possible sexism (Pinel, 1999; 2002) (the ask portion of the Stangor & Swim, 2003 model), this process is a priori to the process of confronting.

Study 3 will present findings that, in part replicate Study 2, and also expand on the validity of these constructs by manipulating implicit theories about the malleability of men's sexist attitudes.

Table 4 – Study 2 – Item Analyses Across-Scenarios

		% Variance – Single Factor – 6 scenarios	Alpha – within item across scenarios	N
1	Threatened by behavior	41.8	.681	146
2	Threatened by man	43.5	.688	147
3	Do Again Same	39.8	.690	146
4	Do Again Different	37.6	.663	148
5	Man How Prejudiced	35.4	.618	146
6	Man How Sexist	36.6	.645	148
7	Man How Fair (Reversed)	32.8	.587	145
8	Man How Negative Stereotypes	36.6	.647	146
9	If Confront – Again Same	46.0	.760	147
10	If Confront – Again Different	42.8	.728	145
11	If Confront – Decrease Prejudice	53.3	.815	143
12	If Confront – Decrease Sexism	48.9	.782	143
13	If Confront – Decrease Fair (Reverse)	40.2	.699	143
14	If Confront – Decrease Negative Stereotypes	47.4	.771	146
15	You would say – Sexist	36.7	.647	143
16	You would say – Question Behavior	42.7	.721	147
17	You would say – Joke	52.6	.841	143
18	You would say – Laugh	33.8	.600	147
19	You would say – Nothing	30.1	.550	148

Table 5 - Study 2 – Latent Variable Analysis

Latent Variable	Items	Factor Loadings	Alpha	N
Perceptions of Man	Threatened by man	.672	.819	143
	How Sexist	.946		
	How Prejudiced	.924		
	How Much Negative Stereotypes	.882		
Perceptions of Behavior	Do again to same woman	.890	.735	146
	Do again to different woman	.890		
Efficacy	If confront – again same	.715	.917	135
	If confront – again different	.890		
	If confront – decrease prejudice	.932		
	If confront – decrease sexism	.918		
	If confront – decrease negative stereotypes	.905		
Confront - Direct	Would you say to the man the behavior was sexist	.964	.923	142
	Would you ask the man if he thought his behavior was sexist	.964		
Confront - Indirect	Would you say a joke in response	.891	.725	142
	Would you laugh at the behavior	.891		

Figure 2 – Study 2 - Model 3 - Unstandardized Regression Weights
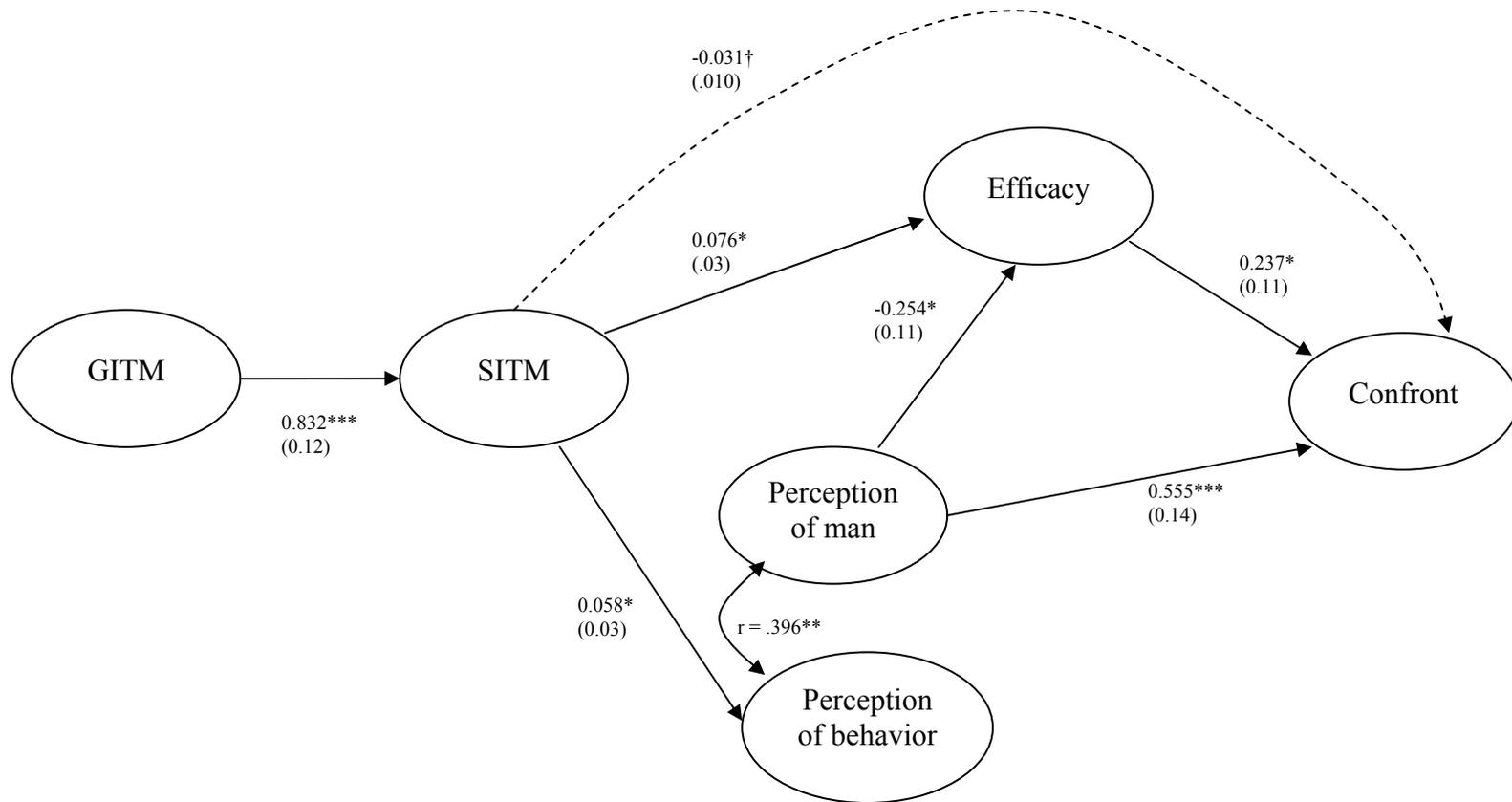
Note: Straight lines indicate significant direct effects (S.E. in parentheses). Dashed line represents a mediated direct path. *** p < .001, ** p < .01, * p < .05, † p < .08

Table 6 – Study 2 – Results for Model 3

Path			b	S.E.	Beta	P value
GITM	→	SITM	.832	.118	.646	***
SITM	→	Efficacy	.076	.033	.200	*
SITM	→	Perceived Man	-.010	.028	-.032	n.s.
SITM	→	Perceived Behavior	-.058	.027	-.214	*
SITM	→	Confronting	.018	.042	.037	n.s.
Perceived Man	→	Efficacy	-.254	.112	-.216	*
Perceived Man	→	Confronting	.555	.144	.364	***
Perceived Behavior	→	Efficacy	.119	.153	.085	n.s.
Perceived Behavior	→	Confronting	-.099	.192	-.054	n.s.
Efficacy	→	Confronting	.237	.109	.183	*

*** p < .001
* p < .05
n.s. non-significant

Chapter 4

Study 3

In the previous study women's implicit theories of sexism were measured and treated as an individual difference. Study 3 was designed to manipulate women's implicit theories of sexism in an effort to better understand the nature of the effect these theories might have on the likelihood of confronting. Manipulating implicit theories about men's sexism assures that implicit theories are not confounded with other individual differences and allows a better test of how the processes work.

Several recent studies have employed a reading comprehension task in which either an entity or incremental theory is endorsed under the guise of a "fake" scientific journal (Hong, et al., 2004; Chui, et al., 1997; Levy, et al., 1998). Such a manipulation was employed for Study 3. Another change for this study is the reduction in the number of scenarios that the participants will read. In the previous study, participants rated two scenarios for each of three levels of sexism identified in pilot testing. Because the inclusion of a manipulation increased the amount of time it would take participants to complete the materials, only one scenario from each level was included in Study 3. The remainder of Study 3 matched the paradigm employed in Study 2.

Method

Participants

One-hundred and ninety-nine women were recruited through the Psychology Department Subject Pool to participate in an on-line survey. Participants who had completed Study 1 or Study 2 were not eligible to participate. As with the previous studies, participants who completed the survey in less than 15 minutes, or took longer than 2 hours to finish were removed from the analyses. Thirty-two participants were dropped and the remaining 167 women were included in the analyses.

Design

Participants in study 3 were randomly assigned to one of two manipulation conditions: an entity theory manipulation vs. an incremental theory manipulation.

Procedure

As with Study 2, participants completed all measures using an on-line web survey. After participants signed up for the study they were directed to a web address containing the informed consent form. If they agree to participate they were directed to the actual survey. The survey was presented as two separate studies. The first part was presented as a reading comprehension study following the procedure of past studies that manipulated implicit theory (e.g. Hong, et al., 2004; Chui, et al., 1997;

Levy, et al., 1998). Participants read a paragraph that ostensibly presented an excerpt from a psychology journal. Embedded in the "journal article" was research support for either an entity theory perspective of male sexism (i.e. that men's sexist attitudes are very difficult to change) (Appendix F), or an incremental theory of male sexism (i.e. that men's sexist attitudes are changeable) (Appendix G). Participants were told that they were reading the article in order to assess how well introductory psychology students can comprehend and recall information in research journals. After reading the article the participants were asked a series of questions about the material (Appendix H), and told that they would be asked more questions about the article after they completed the next part of the experiment. Included in the questions about the article were the Sexism Implicit Theory Measure (SITM) and the General Implicit Theory Measure (GITM). These scales were presented as part of the reading comprehension portion of the first part of the experiment, and served as a manipulation check. Participants also answered several questions about the article. One question in particular was important for assessing the impact of the manipulation. Participants were asked, "Do you believe that the author's argument is true?" They responded by selecting either Yes or No.

After the participants completed the reading comprehension task they were told that they would be working on a second experiment that was unrelated to the task they had just finished. The second part was presented as an unrelated filler task to separate the reading comprehension responses such that, "delaying questions about the material will allow us to test how well the material can be recalled after a short

period of time." The "second part" of the experiment contained three of the

scenarios that had been used in Study 2. Participants complete the same nineteen

questions after each scenario, as discussed in Chapter 3. Following completion of the

survey participants were thanked and directed to a debriefing form.

Results

Manipulation Check

In order to examine the nature of the manipulation, the responses to the SITM

and GITM for the 167 participants were examined. For the SITM, the participants

reported a significant difference between those in the entity condition (X = -0.01, SD

= 1.25, N = 89) and those in the incremental condition (X = 0.89, SD = 0.99, N = 76)

(t (163) = 5.059, p < .001), with responses ranging from -3 (indicating an entity

perspective) to +3 (indicating an incremental perspective). A similar effect was

found for the GITM, such that participants in the entity condition (X = -0.34, SD =

1.19) were significantly different from those in the incremental condition (X = 0.48,

SD = 1.10, t (162) = 4.571, p < .001).

Model Construction

Because Study 3 used an identical question format for the dependant variables

as was used in Study 2, the same latent variables were constructed as in the previous

study. The eight item GITM (α = .902, $\underline{N}$ = 164) and the eight item SITM (α = .924,

$\underline{N}$ = 165) demonstrated similar reliabilities as had been found in the previous

studies. The five other latent constructs were also similar to the previous study;

Perceptions of the man (α = .814, 4 items, $\underline{N}$ = 159), Perceptions of the behavior (α =

.734, 2 items, $\underline{N}$ = 162), Efficacy (α = .915, 3 items, $\underline{N}$ = 159), and the Direct

Confronting variable (α = .830, 2 items, $\underline{N}$ = 159) were all acceptably reliable. The

seventh latent variable, Indirect Confronting failed to result in an acceptable level of

reliability (α = .560, 2 items, $\underline{N}$ = 162). The Indirect Confronting variable had been

found to be inconsistent in Study 2, so it was dropped from further analyses. The

remaining six latent constructs and the items for those constructs were entered into a

model that mirrored the previous study. A variable indicating manipulated condition

(1 = entity condition, 2 = incremental condition) was also included as a predictor.

The initial model resulted in a poor fit (χ^2 (337) = 641.21, $\underline{p}$ < .001). An

examination of the regression weights showed that the Perception of Behavior factor

was not significantly related to any of the other latent variables. Therefore a second

model was constructed with these items removed. The change in fit indices from

model 1 to model 2 was significant ($\Delta\chi^2$ (48) = 278.14, $\underline{p}$ < .001), indicating that this

construct was impeding on the predictive value of the model. The Chi Square fit for

model 2 indicated that the model was a reasonable fit with the data (χ^2 (289) =

363.07, $\underline{p}$ = .002). Because the Chi Square statistic is a conservative estimate of fit

subject to the influence of sample size, three additional indices of fit were examined.

The Root Mean Square Error of Approximation (RMSEA = 0.054) (Steiger 1990),

the Tucker Lewis Index (TLI = 0.953) (Tucker & Lewis, 1973), and the Comparative

Fit Index (CFI = 0.966) (Bentler, 1990) were computed and all indicate that an acceptable fit has been achieved for this model.

In order to explore the influence of the general measure, a third model was constructed with the GITM and its related items removed. The change in fit indices from model 2 to model 3 were only marginally significant ($\Delta\chi^2$ (56) = 71.667, $\underline{p}$ = .077), indicating that the removal of the general measure did not improved the predictive validity of the model.

As with Study 2 a model was created that tested the possibility that implicit theories about the malleability of men might moderate the relationship between perceptions of the men and confronting behavior. A latent variable containing the interaction products of the eight SITM items and the four Perceptions of Man items (32 products) was created, and included in a model with the means of the main effect predictors centered (see, e.g. Kenny & Judd, 1984). The model resulted in no significant pathways evident for the interaction term.

Model Interpretation

The latent factor structure of the final model (Model 2) is presented in Figure 3 (page 68). For simplicity of interpretation, only significant paths are marked. All regression weights and standardized regression weights are presented in Table 7 (page 69). The path from GITM to SITM was significant ($\underline{B}$ = 0.76, $\underline{SE}$ = 0.10, $\underline{p}$ < .001, $\underline{r}$ = .697), such that the endorsement of beliefs about people's malleability was

positively related to the endorsement of beliefs about the malleability of men's

sexist attitudes.

Also as predicted, the SITM was positively related to efficacy ($\underline{B}$ = 0.12, $\underline{SE}$ =

0.06, $\underline{p}$ = .042). Higher scores on the SITM indicate a greater agreement that men's

sexist attitudes are changeable, and higher scores on the measures of efficacy indicate

a greater belief that confronting can bring about change. Thus, as in Study 2, the

relationship shows that those who endorse an incremental view of men's sexism are

more likely to believe that they could change the man by confronting. Conversely,

those that see men's attitudes as fixed (an entity perspective) are less likely to believe

that confronting can change the man.

The construct of efficacy was positively related to the endorsement of directly

confronting the man ($\underline{B}$ = 0.23, $\underline{SE}$ = 0.09, $\underline{p}$ = .012). This path also replicates the

findings from Study 2. Like the previous results the SITM was not significantly

related to Perceptions of the Man ($\underline{B}$ = 0.005, $\underline{SE}$ = 0.04, n.s.), and the direct path in

the model between SITM and Confronting was not significant ($\underline{B}$ = 0.03, $\underline{SE}$ = 0.06,

n.s.), but Perceptions of the Man were significantly related to the endorsement of

confronting ($\underline{B}$ = 0.60, $\underline{SE}$ = 0.13, $\underline{p}$ < .001). Unlike the previous study's results, the

Perceptions of Man variable was unrelated to Efficacy ($\underline{B}$ = -0.03, $\underline{SE}$ = 0.10, n.s.).

Model 2 also included a single item measured variable that represented

assigned condition. The path from Condition to the GITM was significant ($\underline{B}$ = 1.04,

$\underline{SE}$ = 0.20, $\underline{p}$ < .001). Condition had been coded as either a 1, for the entity condition,

or a 2, for the incremental condition. As discussed above, participants in the

incremental condition scored significantly higher on the measures of implicit

theories of malleability (which were coded such that higher numbers indicated an

incremental perspective). Additionally, the path from Condition to SITM was also

significant ($\underline{B} = 0.46$, $\underline{SE} = 0.16$, $\underline{p} = .004$). Condition did not directly predict

Efficacy, Perceptions of the Man, or Confronting.

Mediation analysis of the Condition-SITM-Efficacy relationship was

significant (Sobel test, $\underline{z} = 1.968$, $\underline{p} = .049$), indicating that the SITM measure was

mediating the Condition to Efficacy path. As with Study 2 the relation between the

SITM and confronting behavior was proposed to be mediated by efficacy. A Sobel

test was conducted indicating that the mediation was a marginally significant ($\underline{z} = -$

1.759, $p = .079$).

Discussion

By manipulating implicit theories about the malleability of men's sexism, this

study has attempted to generate a stronger causal argument for the processes outlined

in Study 2. Such a manipulation rules out the possible influence of individual

difference variables (examined in Study 1) that correlate with implicit theories and

thus may present as spurious relationships.

The results support the idea that the causal model presented in Study 2 is a

consistent and reliable representation of the processes involved. Taken together, the

results from Studies 2 and 3 are an initial step in identifying the influence of women's lay theories about the nature of sexism on the likelihood of confronting sexism. By identifying the process by which this influence can impact women's responses in a survey format, I have laid the groundwork for expanding this research into a high impact laboratory experiment.

Figure 3 – Study 3 – Model 2 - Unstandardized Regression Weights for significant pathways
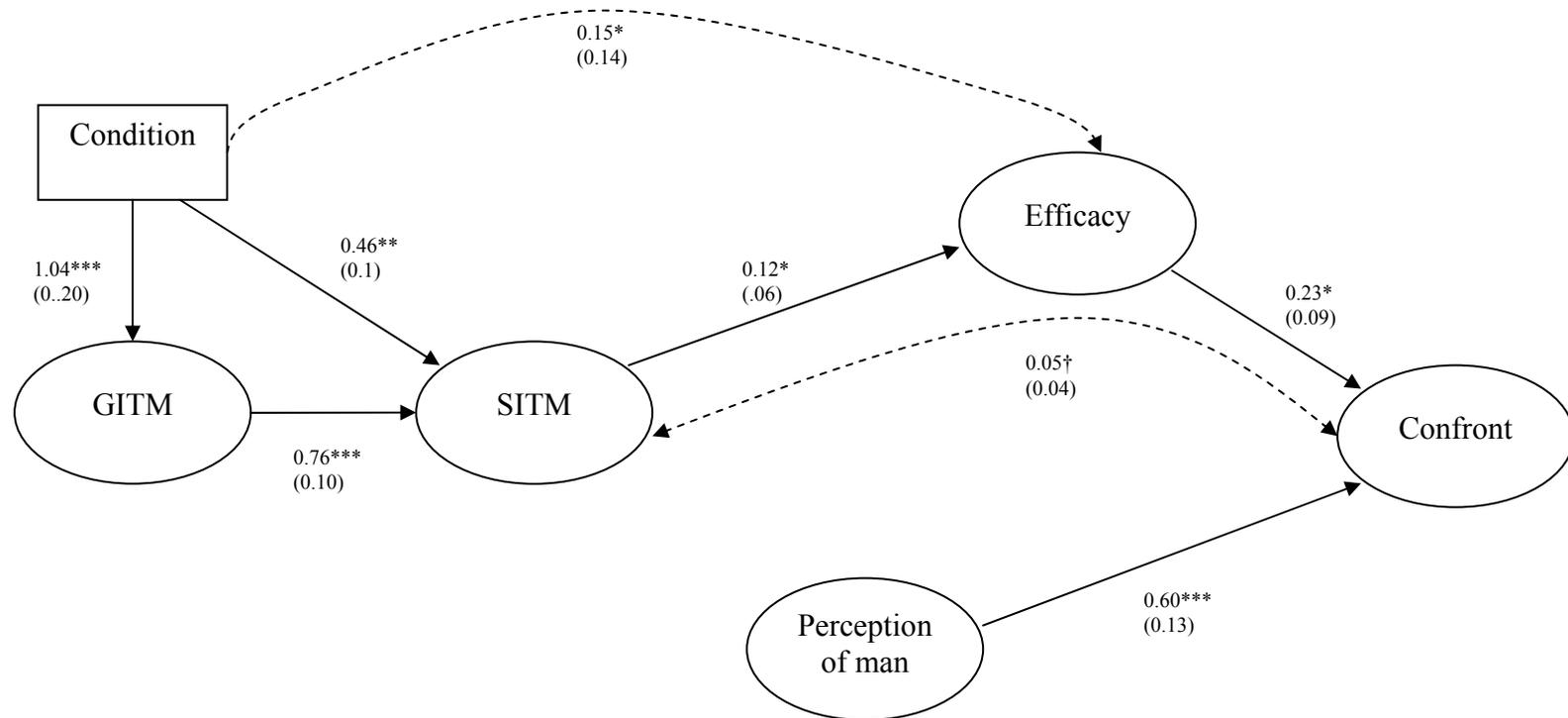
Note: Straight lines indicate significant direct effects (S.E. in parentheses). Dashed lines indicate mediated pathways.
*** p < .001, ** p < .01, * p < .05, † p < .08

Table 7 – Study 3 – Results for Model 2

Path			b	S.E.	Beta	P value
Condition	→	GITM	1.041	.197	.452	***
Condition	→	SITM	.464	.161	.189	**
Condition	→	Efficacy	-.142	.139	-.102	n.s.
Condition	→	Confronting	.076	.142	.048	n.s.
GITM	→	SITM	.763	.104	.714	***
SITM	→	Efficacy	.120	.059	.221	*
SITM	→	Perceived Man	.005	.044	.010	n.s.
SITM	→	Confronting	.028	.061	.043	n.s.
Perceived Man	→	Efficacy	-.031	.102	-.027	n.s.
Perceived Man	→	Confronting	.599	.127	.455	***
Efficacy	→	Confronting	.232	.092	.202	*

Note. *** p < .001, ** p < .01, * p < .05, n.s. non-significant.

Chapter 5

Study 4

Study 4 was designed to examine how implicit theories measured and

manipulated in the previous two studies play a role in confronting actual incidences

of sexism, rather than speculation about hypothetical situations. Research has shown

that women tend to over report the likelihood that they would confront when the

situation in question is presented in scenario format (Swim & Hyers, 1999;

Woodzicka & LaFrance, 2001). By incorporating instances of sexism into a high

impact study, it was proposed that the effects identified in the previous studies would

be observed in a more real world setting.

As discussed in chapter 1, Swim and colleagues (Swim & Hyers, 1999;

Stangor, Swim, VanAllen, & Sechrist, 2002; see also Woodzicka & LaFrance, 2001)

have shown that when women are faced with even blatant sexism, they are often

unlikely to confront. I have proposed above that one possible reason that these

women did not confront in these situations is because they did not believe that

confronting could change either the man's behavior, or his attitude. Study 4 tests the

influence of implicit theories on the endorsement of confronting sexism. It was

proposed that by increasing the endorsement of an incremental theory of sexism the

likelihood of actually confronting a sexist male will also increase. On the other hand,

women who are led to believe that men's sexist attitudes and behaviors cannot be

changed should be less likely to confront the sexist behavior. Thus, Study 4 tested

the predicted main effect of implicit theory endorsement on actual confronting

behavior. In addition to this predicted main effect, it was proposed that implicit

theories about men might moderate the influence perceptions of sexism have on

confronting. Women who believe that men are changeable are likely to see

confronting as a viable means for that change, and the severity of the sexist behavior

is likely to indicate the degree of change possible. On the other hand, women who

believe that men are unchangeable, are likely to perceive small infractions as

uncorrectable as larger ones, and therefore perceiving a man as more or less sexist

should not change the likelihood of confronting.

Method

Participants

57 Women were recruited through the Psychology Department Subject Pool.

Due to the similarity in the procedure and the measures used, women who

participated in Study 1 or Study 2 were not permitted to participate in Study 3.

Design

Study 3 examines the influence of Sexism Implicit Theory (entity theorists vs. incremental theorists) on confronting behavior using a between subjects design.

Procedure

Participants were recruited for a study titled "Test Administrator Evaluations" and data was collected in a large classroom with 15 to 20 participants at a time. For each session there was a female "supervisor", a male and female "experimenter", and two male confederates and one female confederate who pretended to be participants. Participants were told that they would be playing the role of a participant in a battery of psychological measures. They were also told that the study was designed to train future psychologists, and to test how well these psychologists can successfully administer their materials. They were also told that they would be asked to make evaluations of the experimenter in order to help the experimenters improve performance on any problem areas. This context was selected to increase the likelihood that women will consider confronting as a way to influence another's attitude or behavior, as opposed to having confronting interpreted as useful for some other function, such as an expression of anger. Under the guise of the evaluation process the participants were also told that we were interested in how well they, as participants could follow the instructions they were given. This additional element in the instructions was included to ensure that the participants made an effort to respond accurately to the questions presented, and not to have them assume that their

evaluations of the experimenter was the only aspect of the experiment that was important.

The female "supervisor" first met the participants and presented them with an overview of tasks for the experiment (see Appendix I for a complete version of the experimenter script). They were told that two "trainee experimenters" would be working with them, and that each experimenter would present and explain two separate tasks. The supervisor also told the participants that they would be provided with evaluation forms at the end of each experimenter's second task. These evaluation forms were found embedded within the other study materials, ostensibly to ensure that the experimenters were not aware that they were being evaluated. Participants were told, "We would like you to make comments about each of the experimenters independently. This information will help us to make sure that the experimenters know what they are doing, and that they conduct themselves in an appropriate and professional manner."

The supervisor then showed the participants a blank copy of an Experimenter Evaluation Form (see Appendix J). The participants were told that the experimenters did not know the evaluation forms existed. They were told to write down any thoughts, positive or negative, about the experimenter in the open-ended evaluation section of the form. Additionally, a series of statements on the form asked the participants to rate the extent to which the experimenters discriminated against a particular group (e.g., race, sex, religion, age, and disability), and the extent to which the participants perceived the experimenter to possess a series of negative traits (e.g.,

prejudiced, rude, unfair, inconsiderate). Several filler traits (e.g., pleasant, clear, sensitive, efficient[7]) were also included to assuage suspicion. Each of these items was rated on a zero (Definitely Not) to six (Definitely) scale. Participants who indicated that the experimenter had been prejudiced were further instructed to indicate the target of this prejudice. Participants were specifically told by the supervisor that at the end of the experiment session the supervisor would read each participant's comments to the experimenter and discuss the experimenter's performance. Because the participants are told that these evaluations would be read to the experimenter the motivation to try and change either the experimenter's attitude or behavior should be embodied in these reports. Each participant was given an envelope that contained four packets of questionnaires. After giving the instructions, the female supervisor introduced the first experimenter and then left the room.

The first experimenter was a female research assistant. The first task that she introduced to the participants was the implicit theory manipulation article (packet #1 in the envelope). Participants believed that they were given this task as a reading comprehension test. The female experimenter told the participants, "I will need you to read a short excerpt from a psychology journal. We would like you to read it carefully, and think about the material that is being presented. You will be asked to answer some questions about it after you have finished reading, and you will be asked some follow up questions at the very end of the second experimenter's session." In reality, participants were randomly assigned to read either the entity endorsing

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[7] These traits were included as filler items and were not expected to be influenced by the manipulation or by the experimenters' comments. Therefore these items will not be discussed further.

paragraph, or the incremental endorsing paragraph described in chapter 4. After reading the implicit theory manipulation article, the participants completed the General Implicit Theory and Sexism Specific Theory measures. They also answered several questions about the clarity of the article, and whether or not they believed the author's argument. The last page of this portion of the experiment stated that the participants would be asked to recall more information about the article at a later time. This instruction was included in an effort to ensure that the participants tried to remember the content of the article, and thus were more likely to have these concepts available in their working memory.

The female experimenter then provided instructions for a second packet of materials that included a series of questionnaires that served as a filler task. The participants found the first experimenter evaluation form stapled to the end of this packet. After the participants finished this second task, the female experimenter thanked the participants, and left the room to get the second experimenter.

The male experimenter entered the room, and introduced himself. He then asked the participants to read through the example problem for his first task (packet # 3 in the envelope). The first task was presented as a "logical memory recall task", and it had an example problem on the first page of the packet. The male experimenter read the sample problem aloud to the participants, "Marsha tells Ann a secret. Ann tells, Beth and Sarah. Beth tells Clara, and Sarah tells Harriet, Janelle, Marsha and Teresa." How many women know the secret?" He then paused and told the participants the correct answer, "the correct answer is 8". The female confederate

raised her hand and asked, "I thought that there were 9." The male experimenter responded by saying, "You will notice that Marsha already knew the secret, that's why the answer is 8, not 9. Does anyone have any questions?" He then paused and said to the audience, "the truth is, the way women gossip, you tell one a secret they'll all know it sooner or later." He then said, "Ok, go ahead and turn to the next page, and work your way through the rest of the packet. You are allowed to make notes and draw any pictures that help you come to an answer."

After everyone was finished with this task the male experimenter introduced the second task, which involved taking a written description of where someone walked and translating those directions onto a grid with the instructions to draw a line that traced the steps the person took. The male experimenter read the example problem.

"Mary leaves her house and turns right as she walks out the door. She takes the second left, and then the first right, and then the first right and then she enters the building. Draw a line that traces Mary's steps, and place an X on the side of the appropriate box. Below the description you will see a series of boxes that represent city blocks. For this sample you can see that the dotted line represents the path that Mary walked, and that there is an X placed on the side of the box that represents the building she walked to. Does everyone understand the task so far?"

The male experimenter paused to allow the participants the opportunity to ask questions. The after several seconds he said, as if to himself, "Isn't there some joke about women trying to follow directions? It'll be interesting to see how lost you ladies get." He paused again for a second and then said, "Ok, go ahead and turn to the next page. Follow the directions and be sure to work through each page."

As with the female experimenter's second packet of materials, at the end of the male experimenter's second packet of materials the participants found an experimenter evaluation form. The form was identical for both experimenters. When the participants were finished with all of the materials, the male experimenter left the room and the female supervisor returned. She collected all of the materials, read a debriefing statement to the participants, and answered any questions they had about the procedures.

The male experimenter made two sexist comments in an effort to ensure that the participants perceived the man as sexist. Increasing the consistency of his behavior from only a single comment, to two comments was done in an effort to reduce the ambiguity of his attitude toward women. The male experimenter was instructed to continue with the script regardless of the behavior of the participants during and immediately after he made his sexist statements. The three confederates were instructed to observe the behavior of the participants at these times, and to note any outward signs that the participants made toward the male experimenter, or toward each other. Prior to the start of the study it was assumed that some participants might either directly confront these blatantly sexist comments, or might attempt to

communicate some dissatisfaction to other participants. During the testing sessions the confederates noted any such behavior.

Measures

Implicit Theory Measures: As in Study 2, participants completed the modified *Sexism Implicit Theory* (SITM) measure (Appendix A), and the *General Implicit Theory* (GITM) measure (Levy & Dweck, 1997) (Appendix B) using the same response format as described above. It was hypothesized that the implicit theory measures would indicate the successful manipulation of either an entity or incremental implicit theory.

Judgments of Sexism: Participants indicated on the experimenter evaluation form the degree to which they believed that the experimenter intended to discriminate against women, the extent to which the participants believe that discrimination actually occurred, and their ratings of the experimenter on four traits related to sexism (prejudiced, rude, unfair, and inconsiderate). It was hypothesized that the perceived intent of the experimenter should be related to calling his behavior sexist, but that condition and intent should be related to ratings of the experimenter's sexism. The manipulation of perceptions of malleability should predict the likelihood of trying to change the man, rather than mark past behaviors. A main effect of intent was predicted for labeling the behavior sexist. For the ratings of the male experimenter's traits two main effects were predicted. First the level of perceived intent was

predicted to influence the perception of the man as sexist. Second, the manipulated condition was also predicted to be related to assigning the sexist traits, with those in the entity condition less likely to use the negative labels than those in the incremental condition. The perception of the man's intent served as a covariate in the analyses of the influence of the implicit theory manipulation. This was done in order to control for the level sexism perceived across participants.

Confronting: Three forms of confronting were assessed during the experiment. It had been proposed that verbal responses made by the participants during the experiment might indicate dissatisfaction with the male experimenter's comments, and thus serve as a measure of confronting behavior. As discussed above, the confederates noted no outward confronting behavior during any of the sessions. The second component used to assess confronting behavior was based on written responses made by the participants on the male experimenter's evaluation form specifically labeling the behavior as sexism. The third form of confronting involved the participants' ratings of the experimenter on a series of negative qualities discussed above.

Results

Manipulation Checks: As with Study 3 (discussed in the previous chapter) the participants' responses to the Sexism Implicit Theory Measure and the Sexism Essentialism scale were computed and compared with condition assignment. Condition significantly predicted responses to the Sexism Implicit Theory Measure ($\underline{F}$ (1, 55) = 5.546, $\underline{p}$ = .022), such that those assigned to the entity condition ($\underline{M}$ = 0.11, $\underline{SD}$ = 1.42) responded significantly more entitatively than did those assigned to the incremental condition ($\underline{M}$ = 0.89, $\underline{SD}$ = 1.07). The General Implicit Theory Measure showed in no such difference by condition ($\underline{F}$ (1, 55) = 1.06, $\underline{p}$ > 0.3), with those in the entity condition ($\underline{M}$ = -0.08, $\underline{SD}$ = 0.95) responding similarly to those in the incremental condition ($\underline{M}$ = 0.20, $\underline{SD}$ = 1.09). As was found for the first three studies presented above, the correlation between the general and the sexism specific implicit theory measures was highly significant and positive ($\underline{r}$ = .71, $\underline{N}$ = 57).

Confronting Behavior: The ratings of the man's behavior was entered into a regression equation with *Intent to Discriminate* (ratings of the male experimenter's intentions as a continuous measure; from 0 no intent, to 6 high intent) and *Condition* (entity = 1, and incremental = 2) as the predictor variables.

As predicted intent to discriminate was significantly related to labeling the man's behavior sexist (β = 1.00, $\underline{t}$ (54) = 2.04, $\underline{p}$ = .046), and condition was not related (, $\underline{t}$ (54) < 1.00) ($\underline{F}$ (2, 54) = 5.121, $\underline{p}$ = .009, R^2 = .16). No significant interaction was found.

Confronting the Man's Attitude: Each of the four negative traits was entered into a

regression equation with Intent to Discriminate and Condition as predictors. A

complete recounting of the results is shown in Table 8 (page 84).

As predicted, the degree to which participants felt that the male experimenter

had intended to discriminate ($\beta = 0.53$, $\underline{t}$ (54) = 4.41, $\underline{p} < .001$) was significant, and

the assigned condition ($\beta = 0.73$, $\underline{t}$ (55) = 1.693, $\underline{p} = .096$) was marginally

significantly related to the likelihood of calling the experimenter *Prejudiced* ($\underline{F}$ (2,

54) = 10.56, $\underline{p} < .001$, $R^2 = .28$). With both predictors conjointly increasing the

likelihood of calling the experimenter more prejudiced when in the incremental

condition, and when perceiving the experimenter's behavior as more sexist. Figure 4

(page 85) shows a graph of the slopes representing the two main effects.

Similar results were found for ratings of *Rudeness*, with intent to discriminate

($\beta = 0.62$, $\underline{t}$ (55) = 4.66, $\underline{p} < .001$) and condition ($\beta = 1.17$, $\underline{t}$ (55) = 2.46, $\underline{p} = .017$)

significantly predictive of rudeness ($\underline{F}$ (2, 54) = 12.93, $\underline{p} < .001$, $\underline{R}^2 = .32$) (see Figure

5, page 85)

Analysis of the model predicting ratings of how *Unfair* the male experimenter

was perceived to be showed the same pattern of main effects ($\underline{F}$ (2, 54) = 9.79, $\underline{p} <$

$.001$, $\underline{R}^2 = .27$) for intent to discriminate ($\beta = 0.52$, $\underline{t}$ (55) = 3.77, $\underline{p} < .001$) and

condition ($\beta = 1.33$, $\underline{t}$ (55) = 2.67, $\underline{p} = .010$) (see Figure 6, page 86).

The analyses for the remaining dependent variable, *Inconsiderate* were tested

in the same way, but the only significant main effect ($\beta = .52$, $\underline{t}$ (55) = 3.60, $\underline{p} = .001$,)

was predicted by perceptions of intent to discriminate, and was not predicted by

condition ($\beta = .65$, t (55) = 1.26, n.s.) (see Figure 7, page 86).

Discussion

Study 4 was designed to test the predicted influence of implicit theories about

men's sexist nature on the likelihood of confronting sexist behavior. Studies 2 and 3

have shown that these implicit theories are related to beliefs in the efficacy of

changing men, which is then related to endorsement of confronting behavior. Study 4

has taken the results form those survey responses, and tested how implicit theories

affect actual confronting behavior. It has never been the contention of this work to

assume that perceptions of the severity of men's sexist behaviors would be subsumed

by the influence of implicit theories of men's malleability. Rather, Study 4 has

shown that these theories of malleability can have an independent influence. The

results show that implicit theories do influence the likelihood of confronting the

man's traits in an additive fashion with perceptions of the man's intent. The finding

that implicit theories are not related to perceptions of the man's behavior is not

surprising when the previous study results are considered. Because this study moved

from the speculative realm of women's estimates about hypothetical situations to the

laboratory where real confronting was observed, it is not surprising that some of the

results across these paradigms differed.

Overall, the results from this study support the hypothesis that implicit theories about the nature of men's sexist attitudes have real consequences for the likelihood of confronting. The nature of this experiment was designed to focus the participant's attention on the motivation to improve the experimenter's performance. This situation was created in order to enhance the likelihood that the participants would be influenced by their implicit theories about men. As discussed previously, women have reported that this motive was the force behind their confronting responses. Thus, although the experimental situation was contrived, it is evident that the forces that were carefully controlled in this experiment exist in natural settings.

Table 8 – Study 4 – Standardized Regression Results

		Beta	Standard Error	t-test	p
Sexist Behavior	$F_{(2, 54)} = 5.121$, p = .009, $R^2 = .159$				
	Sexism	0.833	.491	2.040	.046
	Condition	0.330	1.478	0.958	n.s.
Prejudice	$F_{(2, 54)} = 10.56$, p < .001, $R^2 = .281$				
	Sexism	0.511	.120	4.412	.001
	Condition	0.196	.430	1.693	.096
Rude	$F_{(2, 54)} = 12.93$, p < .001, $R^2 = .324$				
	Sexism	0.524	.133	4.664	.001
	Condition	0.276	.475	2.456	.017
Unfair	$F_{(2, 54)} = 9.79$, p < .001, $R^2 = .266$				
	Sexism	0.441	.139	3.765	.001
	Condition	0.312	.497	2.669	.010
Inconsiderate	$F_{(2, 54)} = 6.92$, p = .002, $R^2 = .204$				
	Sexism	0.439	.145	3.603	.001
	Condition	0.154	.518	1.259	n.s.

Figure 4. Study 4 – Influence of Condition and Perceptions of Sexism on labeling the male Prejudiced.
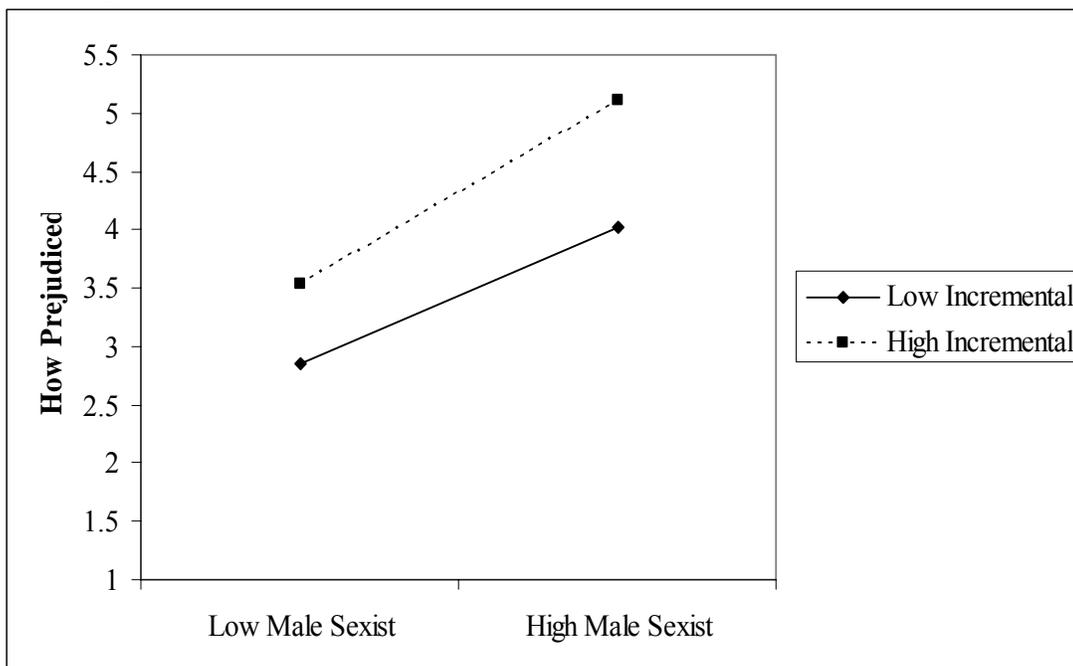

Figure 5. Study 4 – Influence of Condition and Perceptions of Sexism on labeling the male Rude.
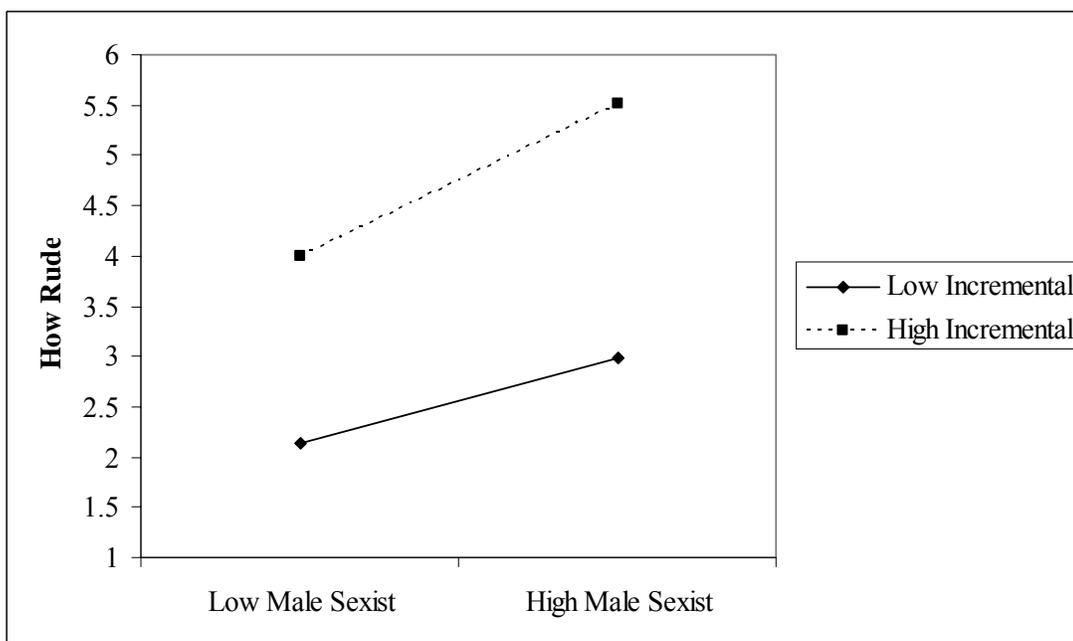
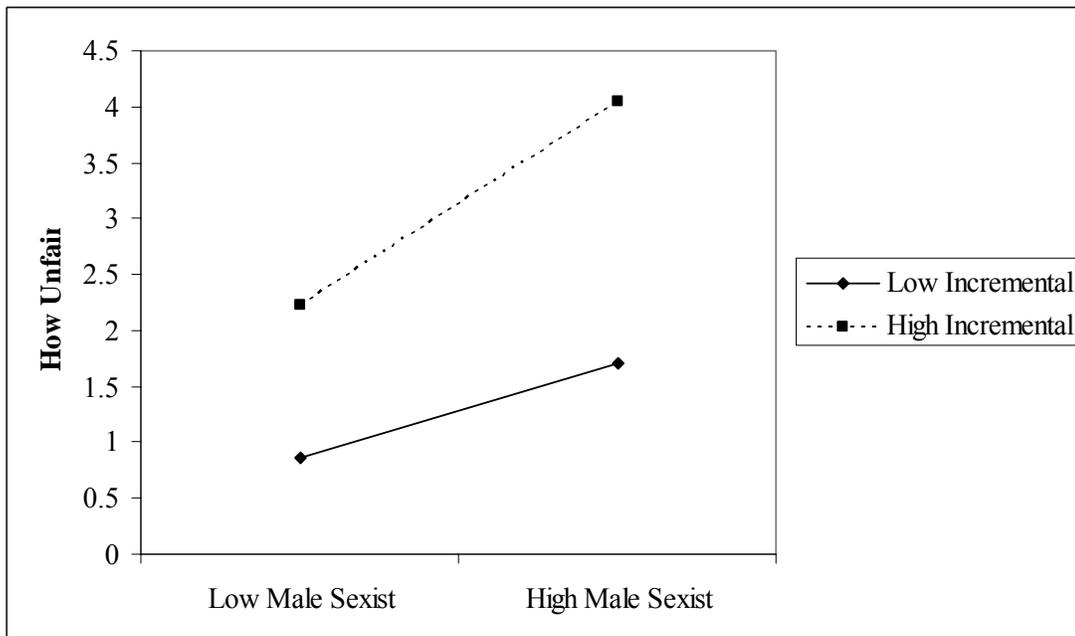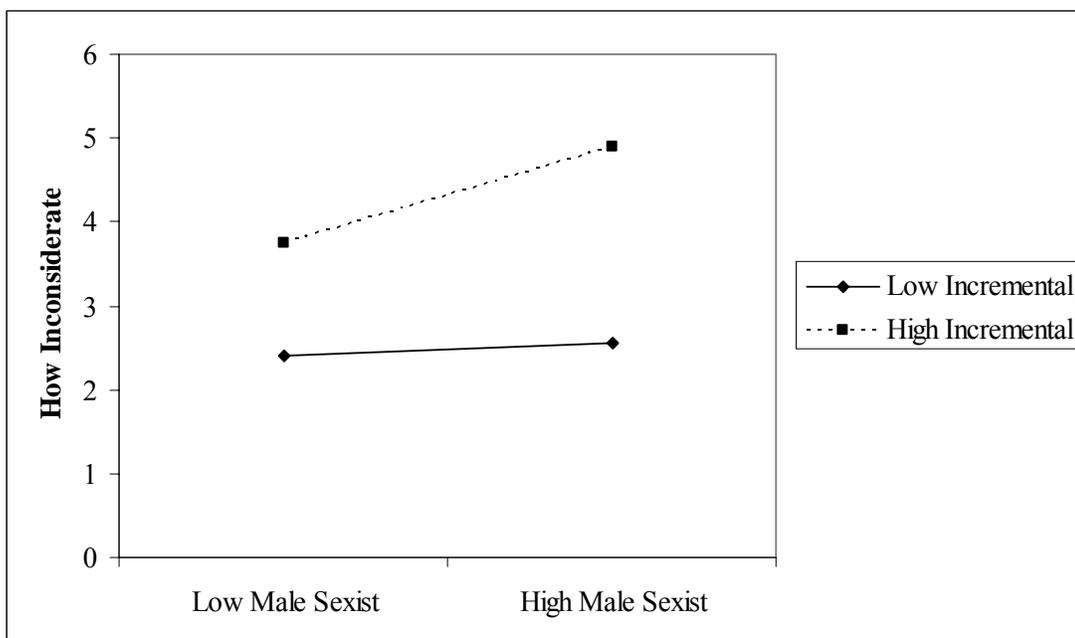Figure 6. Study 4 – Influence of Condition and Perceptions of sexism on labeling the male Unfair.

Figure 7. Study 4 – Influence of Condition and Perceptions of sexism on labeling the male Inconsiderate.

Chapter 6

General Discussion

Taken together, the four studies presented here serve to identify the influence of a new construct (women's implicit theories about the malleability of men's sexist attitudes). It is my contention that this construct, and the accompanying scale that measures it, establish a means to understand an aspect of the perceptions process that can make a unique contribution to the research on confronting discrimination. Study 1 showed that the Sexism Implicit Theory Measure and the General Implicit Theory Measure provide unique explanatory power, over a number of existing scales. This explanatory power is directly related to perceptions of malleability, which has an important function in predicting confronting behavior.

Studies 2 and 3 represent a step toward identifying the processes by which implicit theories about sexism operate. Tentative support was found that the construct of response efficacy is the step by which these implicit theories of men are transformed from subtle expectations about the nature of men to actual behavior in response to discrimination. Though the results of the mediation analysis do not provide conclusive evidence that full mediation explains the process, it is a reasonable assumption that efficacy plays a significant role in how implicit theories influence behavior.

Study 4 has provided concrete evidence that implicit beliefs about men contribute to the understanding of when women will "bother" to confront. The results suggest that, at least in the case of confronting men on their traits related to sexist behavior, implicit theories influence women's confronting. In Chapter 1, I introduced the expected influence of implicit theories on the Ask, Answer, Announce model (Stangor, et al., 2003, see Figure 1, page 15). The model shows motivations to confront influencing the likelihood of confronting or not confronting (the Announce step). Evidence from Study 4 suggests that the strength of the Answer and the influence of implicit theories will work together in determining the likelihood of announcing that some action was discrimination.

When this project was originally conceived it had begun as an exploration of the influence of essentialized beliefs about men. It was proposed that the way in which women view the essential characteristics of men might influence the way in which they expect to be treated. As was mentioned at the beginning of this paper, Nick Haslam and colleagues (Haslam, et al., 2000; Haslam, et al., 2004) have combined elements from essentialist theories to create a measure of essentialism. His nine item scale was included in Study 1, and a modified version of his scale, intended to examine women's perceptions of sexist men in particular was included in all four studies. These scales were not included in any of the analyses reported because no factor structure consistent with Haslam's other work was found. This is possibly due to the nature of the construct of interest. The original scale is designed to assess complex nuances of essentialism. The participants in Study 1 may have failed to invest the cognitive effort required to fully interpret the constructs, and therefore did

not respond in a consistent manner. The modified version that I created was based on the structure of the original items, and it is likely that this measure suffered from the same problems. The scale that was used is more a measure of perceptions of malleability, a construct that was easier for the participants to process. Future research should reexamine the nature of essentialist beliefs and investigate how this construct can build upon the findings presented here.

As discussed in Chapter 1, considerable effort has been made to understand the discrepancy between women's private and public reports of sexism. By understanding how women are influenced by their lay theories of the nature of sexism, I believe it is possible to shed some light on previous research on the public-private response discrepancy (e.g., Swim & Hyers, 1999; Stangor, Swim, Van Allen, & Sechrist, 2002; Woodzicka & LaFrance, 2001). Private reports have no possible relation to changing a man's sexist behavior or attitude, so implicit theories should have no impact on such reporting. In a situation where responses are made openly, I believe that the influence of beliefs about the changeability of men will play a role in the likelihood of confronting sexism. I propose that previous studies have shown that for many women, an encounter with sexism results in a "why bother" situation because they believe that men are unchangeable. If such beliefs can be changed (by imparting incremental theories of sexism) then it seems possible to increase the likelihood of confronting.

There are likely to be some real-world applications for the manipulation of sexist implicit theories. Encouraging women to confront sexism in an attempt to create more egalitarian environments makes intuitive sense. But if women believe

that men are unchangeable, then they may not make such efforts. By showing that lay theories about sexism can be changed, it is possible to imagine a situation where anti-sexism training (i.e. teaching women to recognize and confront sexism) could include sexism implicit incremental ideas to endorse the utility of confronting. This point presupposes that women will have the means to counter any retaliation for their confronting behavior, or that women will know when confronting will have acceptable costs.

The studies presented here are all based on women's perceptions of sexism and confronting behavior toward sexist men. I believe that these ideas are equally adaptable to other stigmatized groups. Future research could be directed toward understanding Implicit Theories about the attitude malleability of racism, heterosexism, ageism, and other forms of prejudice and discrimination, with the aim of understanding how members of these stigmatized groups are influenced by their beliefs about out-group perceptions. Implicit theories may explain why some people are willing to confront prejudice and discrimination while others simply do not believe such efforts are worth the bother.

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Appendix A

Levy & Dweck (1997)
General Implicit Theory Measure (GITM)

1. The kind of person someone is, is something basic about them, and it can't be changed very much.

2. Everyone, no matter who they are, can significantly change their basic characteristics.

3. People can do things differently, but the important parts of who they are can't really be changed.

4. People can substantially change the kind of person they are.

5. Everyone is a certain kind of person, and there is not much that they can do to really change that.

6. No matter what kind of person someone is, they can always change very much.

7. As much as I hate to admit it, you can't teach an old dog new tricks. People can't really change their deepest attributes.

8. People can change even their most basic qualities.

Items were rated from -3 (Strongly Disagree) to +3 (Strongly Agree).
Items 2, 4, 6, and 8 are reverse coded.

Appendix B

Sexism Implicit Theory Measure (SITM)

1. How sexist a man is, is something basic about him, and it can't be changed very much.

2. All men, no matter who they are, can significantly change how sexist they are.

3. Men can do things differently, but how sexist they are can't really be changed.

4. Men can substantially change how sexist they are.

5. How sexist a man is, is deeply ingrained in their personality. It cannot be changed very much.

6. No matter how sexist men are, they can always change very much.

7. There is not much that can be done to change how sexist a man is.

8. Men can change how sexist they are.

Items were rated from -3 (Strongly Disagree) to +3 (Strongly Agree).
Items 2, 4, 6, and 8 are reverse coded.

Appendix C

Pinel, 1999
Stigma Consciousness Scale

1. Stereotypes about women have not affected me personally.

2. I never worry that my behaviors will be viewed as stereotypically female.

3. When interacting with men, I feel like they interpret all my behaviors in terms of the fact that I am a woman.

4. Most men do not judge women on the basis of their gender.

5. My being female does not influence how men act with me.

6. I almost never think about the fact that I am female when I interact with men.

7. My being female does not influence how people act with me.

8. Most men have a lot more sexist thoughts than they actually express.

9. I often think that men are unfairly accused of being sexist.

10. Most men have a problem viewing women as equals.

Items were rated from -3 (Strongly Disagree) to +3 (Strongly Agree).
Items 1, 2, 4, 5, 6, 7, and 9 are reverse coded.

Klonoff & Landrine (1995) - The Schedule of Sexist Events

1. How many times were you treated unfairly by teachers because of your sex?
2. How many times were you treated unfairly by your employers, bosses and supervisors because of your sex?
3. How many times were you treated unfairly by your coworkers, fellow students, and colleagues because of your sex?
4. How many times were you treated unfairly by people in service jobs (store clerks, waiters, bartenders, bank tellers, mechanics and others) because of your sex?
5. How many times were you treated unfairly by strangers because of your sex?
6. How many times were you treated unfairly by people in helping jobs (doctors, nurses, psychiatrists, case workers, dentists, school counselors, therapists, pediatricians, school principals and others) because of your sex?
7. How many times were you treated unfairly by neighbors because of your sex?
8. How many times did people make inappropriate or unwanted sexual advances to you because of your sex?
9. How many times were you treated unfairly by your boyfriend/girlfriend, husband/wife, or other important person in your life because of your sex?
10. How many times were you denied a raise, promotion, tenure, a good assignment, a job, or other such thing at work that you deserved because of your sex?
11. How many times were you treated unfairly by your family because of your sex?
12. How many times did you want to tell someone off for being sexist?
13. How many times were you really angry about something sexist that was done to you?
14. How many times were you forced to take drastic steps (such as filing a grievance, filing a lawsuit, quitting your job, moving away, and other action) to deal with some sexist thing that was done to you?
15. How many times were you called sexist names (like bitch, cunt, chick, or other names)?
16. How many times did you get into an argument or fight about something sexist that was done to you or done to somebody else?
17. How many times were you made fun of, picked on, pushed, shoved, hit, or threatened with harm because of your sex?
18. How many times did people make sexist jokes, or degrading sexual jokes?
19. How many times did people fail to show you the respect that you deserve because of your sex?

Items were rated with the instructions:

Please think about the following response options when answer the next questions.
NEVER = did not happen to you;
ONCE IN AWHILE = less than 10% of the time
SOMETIMES = 10%-25% of the time
A LOT = 26%-49% of the time
MOST OF THE TIME = 50%-70% of the time
ALMOST ALL OF THE TIME = more than 70% of the time

Oneil, Egan, Owen, & Murry (1993)
Personal-Professional Activism Scale

1. I use my knowledge about sexism to make a difference in my life.

2. I teach people ways to overcome gender role conflict and sexism.

3. I have taken some actions in my personal life to reduce sexism.

4. I reflect on my feelings about gender role conflict and then act on them.

5. I use my anger about sexism in positive ways.

6. I feel inner strength and power because of my gender role freedom.

7. I can face my personal pain about sexism and act on it.

8. I am responsible for changing restrictive gender roles.

9. I feel less restricted because of gender role changes I am making.

10. I express my anger and frustration due to sexism.

11. I structure my life to be free of gender role stereotypes.

12. When I get angry about sexism, I want to fight back.

13. I feel powerless to do anything to prevent sexism.

Items were rated from -3 (Strongly Disagree) to +3 (Strongly Agree).
Item 13 was reverse coded.

Swim, Aikin, Hall & Hunter, 1995
Selected items from the Modern Sexism Scale

1. Women often miss out on good jobs due to sexual discrimination.

2. It is rare to see women treated in a sexist manner on television.

3. Society has reached the point where women and men have equal opportunities for

    achievement.

4. Discrimination against women is no longer a problem in the United States.

5. On average, people in our society treat husbands and wives equally.

Items were rated from -3 (Strongly Disagree) to +3 (Strongly Agree).
Items 2, 3, 4, and 5 were reverse coded.

Glick & Fiske, 1999
Ambivalence Toward Men Inventory

1. Even if both members of a couple work, the woman ought to be more attentive to taking care of her man at home.
2. A man who is sexually attracted to a woman typically has no morals about doing whatever it takes to get her to bed.
3. Men are less likely to fall apart in emergencies than women are.
4. When men act to "help" women, they are often trying to prove they are better than women.
5. Every woman needs a male partner who will cherish her.
6. Men would be lost in this world if women weren't there to guide them.
7. A woman will never be truly fulfilled in life if she doesn't have a committed, long-term relationship with a man.
8. Men act like babies when they are sick.
9. Men will always fight to have greater control in society than women.
10. Men are mainly useful to provide financial security for women.
11. Even men who claim to be sensitive to women's rights really want a traditional relationship at home, with the woman performing most of the housekeeping and child care.
12. Every woman ought to have a man she adores.
13. Men are more willing to put themselves in danger to protect others.
14. Men usually try to dominate conversations when talking to women.
15. Most men pay lip service to equality for women, but can't handle having a woman as an equal.
16. Women are incomplete without men.
17. When it comes down to it, most men are really like children.
18. Men are more willing to take risks than women.
19. Most men sexually harass women, even if only in subtle ways, once they are in a position of power over them.
20. Women ought to take care of their men at home, because men would fall apart if they had to fend for themselves.

Items were rated from -3 (Strongly Disagree) to +3 (Strongly Agree).
Hostility Subscale – Items 2, 4, 6, 8, 9, 11, 14, 15, 17, 19
Benevolence Subscale – Items 1, 3, 5, 7, 10, 12, 13, 16, 18, 20

King & King (1990)
Sex Roles Equality Scale –

1. Home economics courses should be as acceptable for male students as for female students.
2. Women have as much ability as men to make major business decisions.
3. High school counselors should encourage qualified women to enter technical fields like engineering.
4. Cleaning up the dishes should be the shared responsibility of husbands and wives.
5. A husband should leave the care of young babies to his wife.
6. The family home will run better if the father, rather than the mother, sets the rules for the children.
7. It should be the mother's responsibility, not the father's, to plan the young child's birthday party.
8. When a child awakens at night, the mother should take care of the child's needs.
9. Men and women should be given an equal chance for professional training.
10. It is worse for a woman to get drunk than for a man.
11. When it comes to planning a party, women are better judges of which people to invite.
12. The entry of women into traditionally male jobs should be discouraged.
13. Expensive job training should be given mostly to men.
14. The husband should be the head of the family.
15. It is wrong for a man to enter a traditionally female career.
16. Important career-related decisions should be left to the husband.
17. A woman should be careful not to appear smarter than the man she is dating.
18. Women are more likely than men to gossip about people they know.
19. A husband should not meddle with the domestic affairs of the household.
20. It is more appropriate for a mother, rather than a father, to change their baby's diapers.
21. When two people are dating, it is best if they base their social life around the man's friends.
22. Women are just as capable as men to run a business.
23. When a couple is invited to a party, the wife, not the husband, should accept or decline the invitation.
24. Men and women should be treated the same when applying for student loans.
25. Equal opportunity for all jobs regardless of sex is an ideal we should all support.

Items were rated from -3 (Strongly Disagree) to +3 (Strongly Agree).
Items 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, and 23 were reverse coded.

Scheier & Carver, 1985
Optimism Scale

1. In uncertain times, I usually expect the best

2. It's easy for me to relax

3. If something can go wrong for me, it will

4. I'm always optimistic about my future

5. I enjoy my friends a lot

6. It's important for me to keep busy

7. I hardly ever expect things to go my way

8. I don't get upset too easily

9. I rarely count on good things happening to me

10. Overall, I expect more good things to happen to me than bad

Items were rated from -3 (Strongly Disagree) to +3 (Strongly Agree).
Items 3, 7, and 9 were reverse coded.

Appendix D

Sexist Scenarios used in Study 2 and Study 3

Study 1 — A group of 5 women is getting ready to leave a party and walk home. A man comes up to them and says, "You girls need to be careful when you walk at night. I'll walk you home." Imagine that you are one of the women present.

Study 1 — During a gym class comprised of 7 men and 3 women, the group is instructed to assume a push-up position. While they are doing this, one of the men makes a comment about "girl push-ups". Imagine that you are one of the women present.

Study 1 — Two equally qualified employees (one male, one female) are up for a promotion. The female gets passed over because the man in charge of promotion says that she is not "management material." All of the people in management are male. Imagine that you worked for the company and heard about this behavior.

Study 1 & 2 — A woman is at the grocery store and goes to pick up a large case of water. As she bends over to get it, a man comes up behind her and says, "I'll get that for you hun", and proceeds to put the case of water under her cart for her. Imagine that you are the woman.

Study 1 & 2 — A man is at a restaurant with a group composed of 2 other men, and 3 other women. He tells a sexist joke, and people laugh. Imagine that you are one of the women present.

Study 1 & 2 — A group of 5 men and 1 woman are starting to work on a class project together. The woman makes a suggestion about how they should get their materials organized so that they can work together efficiently. One of the men says, "Well we've heard a woman's opinion. Now how should we really do this?" Imagine that you are the woman.

Appendix E

Study 2 and 3 –Sexist scenario evaluation responses

1. How threatened would you be by this behavior?

2. How threatened would you be by a man who did this behavior?

3. How likely do you think it is that the man would do this behavior to the same woman again?

4. How likely do you think it is that he would do this behavior to a different woman?

5. How likely is the man prejudiced against women?

6. How likely is the man sexist?

7. How likely is the man generally fair toward women?

8. How likely does the man hold negative stereotypes about women?

9. How likely do you think that confronting the man would decrease the chances that he would say something sexist again to the same woman?

10. How likely do you think it is that confronting the man would decrease the chances that he would say something sexist again to a different woman?

11. If you confronted the man, how likely would confronting decrease the chances that he would be prejudiced against women?

12. If you confronted the man, how likely would confronting decrease the chances that he would be sexist?

13. If you confronted the man, how likely would confronting decrease the chances that he would be generally fair toward women?

14. If you confronted the man, how likely would confronting decrease the chances that he would hold negative stereotypes about women?

15. How likely do you think it is that you would indicate to the man that you thought his behavior was sexist?

16. How likely do you think it is that you would ask the man whether he realized his behavior was sexist?

17. How likely is it that you would say a sexist joke about men in response to the man's behavior?

18. How likely is it that you would laugh at the man's behavior?

19. How likely is it that you would not say anything about the man's behavior?

Appendix F

Study 3 & 4 – Entity Implicit Theory Manipulation

Please read the following excerpt from an article recently published in the journal Psychology Today. We are interested in how well psychology students are able to read and interpret the information presented in articles within the field. You will be asked to recall some information about the article when you are finished reading, and you will be asked some additional questions about the article near the end of this experiment session.

All or Nothing: The Fixed Nature of Men's Perceptions of Women
By Dr. George McGovern

A great deal of attention has been given to the continuing existence of gender disparities across a number of socioeconomic factors. For example Bradburn and Sikora (2002) reported that there was an average $13,000 difference in the salary of male faculty to female faculty at large research institutions in the United States. Even where educational attainment over the past 30 years has evened out, with women as likely to receive college degrees as men, of the 1992-93 and 1999-2000 bachelor's degree recipients, men were more likely than women to be working full time while women were more likely than men to be working part time (NCES, 2005). One probable cause of these differences is the continued effect of sexism. Recent work has begun to focus on the nature of sexism, and the ways in which men's sexist attitudes might be changed.

In his talk at the American Psychological Association's annual convention held in Washington D.C., Dr. George Medin argued that "in most of us, by the age of ten our character has set like plaster and will never soften again." He reported numerous large longitudinal studies which show that people "age and develop, but they do so on the foundation of enduring dispositions." A poignant illustration of this phenomenon is found with a review of the literature on changing sexist attitudes and behaviors. Despite considerable effort, and uncountable funding, no reliable method has been identified which can significantly alter men's sexist attitudes (Brooks & Bolzendahl, 2004). Time and again research has shown that if a man endorses sexist beliefs, almost nothing can be done to change those beliefs (e.g. Bryant, 2003; Sevelius & Stake, 2004). Additionally, the frequency of actual sexist behavior seems to be just as unchangeable. Men, who respond with sexist behavior, are unlikely to respond without sexism even after intervention training. The fixed nature of sexism means that we are at least a generation away from significant change in sexism at the societal level because it is unlikely that we can change the attitudes of those males already over the age of fourteen. It is with those males who are too young to have developed fixed sexist attitudes that we can hope to prepare for a more egalitarian future.

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Sevelius, J. M. & Stake, J. E. (2004). The effects of prior attitudes and attitude importance on attitude entrenchment. *Journal of Applied Social Psychology, 33*, 2341-2353.

Appendix G

Study 3 & 4 – Incremental Implicit Theory Manipulation

Please read the following excerpt from an article recently published in the journal Psychology Today. We are interested in how well psychology students are able to read and interpret the information presented in articles within the field. You will be asked to recall some information about the article when you are finished reading, and you will be asked some additional questions about the article near the end of this experiment session.

Shifting Gears: The Malleable Nature of Men's Perceptions of Women
By Dr. George McGovern

A great deal of attention has been given to the continuing existence of gender disparities across a number of socioeconomic factors. For example Bradburn and Sikora (2002) reported that there was an average $13,000 difference in the salary of male faculty to female faculty at large research institutions in the United States. Even where educational attainment over the past 30 years has evened out, with women as likely to receive college degrees as men, of the 1992-93 and 1999-2000 bachelor's degree recipients, men were more likely than women to be working full time while women were more likely than men to be working part time (NCES, 2005). One probable cause of these differences is the continued effect of sexism. Recent work has begun to focus on the nature of sexism, and the ways in which men's sexist attitudes might be changed.

In his talk at the American Psychological Association's annual convention held in Washington D.C., Dr. George Medin argued that "no one's character is hard like a rock that cannot be changed. Only for some, greater effort and determination are needed to effect changes." He reported numerous large longitudinal studies which show that people can mature and can change their character. He also reported research findings showing that people's personality characteristics can be changed even in their late sixties. A poignant illustration of this phenomenon is found with a review of the literature on changing sexist attitudes and behaviors. After considerable effort, and uncountable funding, reliable methods have been identified which can significantly alter men's sexist attitudes (Brooks & Bolzendahl, 2004). Time and again research has shown that if a man endorses sexist beliefs, various methods can effect change in those beliefs (e.g. Bryant, 2003; Sevelius & Stake, 2004). Additionally, the frequency of actual sexist behavior seems to be just as changeable. Men, who respond with sexist behavior, are likely to respond without sexism after intervention training. The malleable nature of sexism means that we are at least part way toward significant change in sexism at the societal level because it is likely that we can, with effort change the attitudes of males.

References

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National Center for Educational Statistics. (2005). *Gender Differences in Participation and Completion of Undergraduate Education and How They Have Changed Over Time*. U.S. Department of Education, Institute of Educational Sciences.
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Appendix H

Study 3 & 4 – Article Recall Manipulation Check

In 1 or 2 sentences please describe what the article was about.

Was the language of the article clear? (circle one)	Yes	No
Did the author use words that you did not recognize? (circle one)	Yes	No
Did the author make a good argument in support of his ideas (circle one)	Yes	No
Do you believe that the author's argument is true (circle one)	Yes	No

You will be asked more questions about the article in a few minutes. You will first be asked to answer some questions for a second study that we are conducting. These other questions are unrelated to the article and are part of another study, but we would like to see how delaying questions about the material will allow us to test how well the material can be recalled after a short period of time.

Appendix I

Study 4 – Experimenter Script

"Supervisor" meets participants: "Hi are you _____? Come on in and have a seat. Please sit in every other row, every other seat. *Show the Participant what you mean by pointing to an appropriate seat.* My name is _____, and I'll be supervising today's experiment. There will be a bunch of you participating at the same time, so we will need to wait for the other participants to show up. In the meantime, please have a seat. We will be starting soon. *Wait until all of the participants arrive.*

When all of the participants show up (or when it gets to be 2 minutes after the scheduled start time), close the door.

Speak loudly enough for the participants to hear.

"What we are going to be doing is have **two** of our trainee experimenters run you through **four** different tasks. We are interested in how well the experimenters make the instructions clear, and how comfortable you are during the testing session. You will be asked to read and fill out some questionnaires, and we would like you to give honest and accurate responses because we will be analyzing the data at a later date. But we are also interested in your evaluation of our new experimenters. We want to make sure that they are well trained and prepared to run experiments on their own."

"You will be given a series of questionnaires, and we would like you to answer them seriously and honestly because we will be using the data, but you will also see that after the second task, and after the fourth task, the materials will contain an extra page. This page will look like this (*hold up evaluation sheet, show them where they can write stuff*), and it has space for you to write about the experimenters' performance. We would like you to make comments about each of the experimenters independently. This information will help us to make sure that the experimenters know what they are doing, and that they conduct themselves in an appropriate and professional manner. Does that make sense?" *Answer questions if asked*

"We would like you to write down anything that you think the experimenter should know about how they are doing. These can be positive things, like 'the experimenter made the instructions clear', or they can be things that you think the experimenter needs to improve on. At the end of the testing session, I will go over your comments with each experimenter, but the experimenters will not know who made which comments. This is the first time this person has run through the experiment with actual participants, and they don't know that you are rating them, but we hope that this feedback can help them be better experimenters."

"For today, I will be leaving the room while you work on the experiment, but if at anytime you have any questions or comments, please just write them down on your evaluation forms and I will go over your comments with the experimenters after the session is over."

"Before we begin, let me give you two copies of the Informed Consent form. Please read these over, and if you agree to participate, sign and date both copies. You will see that the informed consent form has questions about being videotaped. You are NOT being videotaped for this training session. Please check the box that says you do not wish to be videotaped. We must tell you if you are being videotaped, but that is not part of this study." *Give them the Informed Consent Forms. Collect one, and they keep the other.*

"Let me go get the first experimenter. Before I go, does anyone have any questions?" *Answer them.* "I'll be right back." *Walk out of the room and get the experimenter.*

Female Experimenter (FE) and Supervisor (S) return to room.

After being introduced to the participant the supervisor leaves the room:

FE - "OK, let's get started. I will be asking you to read some materials, and to fill out a series of questionnaires. There are no right or wrong answers to these questions, but please give some thought to your responses. Your responses will be completely anonymous. There are two separate parts to this experiment and each part is numbered. When you get your materials, please place them on your desk, but do not open them. I will give you further instructions when everyone has a packet."

Pass out the packets.

FE – "Ok, as I said, there are two parts to this experiment. The first task is marked with a #1 at the top of the page. Go ahead and pull out the questionnaire with a # 1 written at the top. I will need you to read a short excerpt from a psychology journal. We would like you to read it carefully, and think about the material that is being presented. You will be asked to answer some questions about it after you have finished reading, and you will be asked some follow up questions at the very end of the second experimenter's session." *Say (as if to yourself),* "Let's see… *Pause, flip through your script quickly.* Ok, go ahead and read the article and answer the questions that follow the article. If you finish early, please just stay seated while the others finish. Also, please do NOT put your name on any of the materials."

Make sure people are only looking at the right materials

FE – Have a seat in the front of the classroom. Keep an eye on the participants incase someone has a question, but stay up front, so that they can fill out the evaluations anonymously. "Put your materials back in the envelope. It will not be

looked at until we collect data from all of our participants, and your responses will not be able to be associated with your name."

FE - "You will be asked more questions about the article after the second experimenter is done. You will first be asked to answer some questions for a second study that we are conducting. These other questions are unrelated to the article and are part of another study, but we would like to see how delaying questions about the material will allow us to test how well the material can be recalled after a short period of time."

FE – "The second task involves filling out a series of questionnaires. Each questionnaire has its own set of instructions, so please read all of the instructions carefully. Go ahead and pull out the questionnaire marked with #2. Please do NOT put your name on any of the materials. You can go ahead and start filling out the questionnaires. When you are finished place these questionnaires back in the envelope, then please just wait until everyone else has finished."

Let them work on the second task. If everyone finishes early, move on.

"Place your questionnaires back in the envelope."

"OK, that's it for me. I'll go get the second experimenter."

Male Experimenter (ME) enters room

ME – "Hi, I'm _____ and I'll be leading you through the rest of the study. Ok, go ahead and pull out the questionnaire marked with #3 on it. You will see a test of logical memory. You will read a series of sentences that have interconnected pieces of information. There are 3 logical memory problems, and one example problem. Please do not turn the page until I tell you to. I will read the first memory task to provide you with an example of how to work through it. When we are done, I will tell you to begin and then you will complete the remaining 3 memory tasks.

ME – On the example page you'll see the statement reads, "Marsha tells Ann a secret. Ann tells, Beth and Sarah. Beth tells Clara, and Sarah tells Harriet, Janelle, Marsha and Teresa." How many women know the secret? *Pause* The correct answer is 8.

Female confederate raises her hand: "I thought that there were 9"

ME – "You will notice that Marsha already knew the secret, that's why the answer is 8, not 9. Does anyone have any questions? *Pause... looking at the audience...* "the truth is, the way women gossip, you tell one a secret they'll all know it sooner or later."

Shuffle your papers, pause... "Ok, go ahead and turn to the next page, and work your way through the rest of the packet. You are allowed to make notes and draw any pictures that help you come to an answer.

When everyone finishes move on. If people are still working at 5 minutes, tell them to wrap it up, and then move on.

"Ok, please place the materials from that exercise back in the envelope. *Give them a moment to put their materials in the envelope.* Now pull out the questionnaire marked with #4."

"This task involves translating written directions into a line drawing. The first page of this material gives you an example that we will go over now. The questions says, 'Mary leaves her house and turns right as she walks out the door. She takes the second left, and then the first right, and then the first right and then she enters the building. Draw a line that traces Mary's steps, and place an X on the side of the appropriate box.' Below the description you will see a series of boxes that represent city blocks. For this sample you can see that the dotted line represents the path that Mary walked, and that there is an X placed on the side of the box that represents the building she walked to. Does everyone understand the task so far?"

Answer questions if there are any.

To the audience in general... "Isn't there some joke about women trying to follow directions? It'll be interesting to see how lost you ladies get."

"Ok, go ahead and turn to the next page. Follow the directions and be sure to work through each page."

When everyone finishes move on.

"Ok, please place your materials back in the envelope. That concludes my part of the experiment. I will be heading out of the room to get the supervisor. She will have some more questions for you to answer. Thanks."

Go out and get the Supervisor.

Supervisor returns alone.

Double check the list of participants to make sure you can give the right people credit.

Hand out written debriefing form.

Appendix J

Study 4 – Experimenter Evaluation Form

DEPARTMENT OF PSYCHOLOGY
QUALITY CONTROL SURVEY

The Department of Psychology wants to ensure that all studies are conducted effectively, and within the guidelines established by the university's Office of Regulatory Compliance. Please do not put your name on this questionnaire. However, if you have any concerns about how this study was conducted or any other psychology study, please contact the psychology department at: 865-9515 or the Office of Regulatory Compliance at 865-1775.

The experimenter should follow the university's regulations on the treatment of human subjects

Were you provided with an informed consent sheet at the beginning of the study?
0 Yes   0 No

Were you offered any financial compensation for participating in this study?
0 Yes   0 No

→ If yes, please indicate the amount and type of compensation.

Were you offered any extra-credit for participating in this study?
0 Yes   0 No

→ If yes, did your professor give you the option of doing something other than participating in experiments to earn the extra-credit? 0 Yes   0 No

Did you observe or experience any negative consequences to any participants during the study?

Please rate the extent to which you believe that any of the participants in the study experienced negative consequences in the study. This can include boredom, discomfort, or any form of harm or threat of harm. Circle the number that best represents your opinion about the harm.

	Rating of harm						
	No negative Consequences					A great deal of Negative consequences	
Psychological	0	1	2	3	4	5	6
Economic	0	1	2	3	4	5	6
Academic	0	1	2	3	4	5	6
Physical	0	1	2	3	4	5	6
Emotional	0	1	2	3	4	5	6

If the negative consequences to any participant were more than a minimal amount, please provide a brief description below:

Experimenters should not engage or attempt to engage in discrimination against participants on the basis of race, sex, religion, age, or disability.

Please rate the extent to which you believe the experimenter(s) <u>intended</u> to discriminate against any participant on the basis of:

	Rating of intent						
	No Intent						High intent
Race	0	1	2	3	4	5	6
Sex	0	1	2	3	4	5	6
Religion	0	1	2	3	4	5	6
Age	0	1	2	3	4	5	6
Disability	0	1	2	3	4	5	6

<u>*The experimenter(s) should present a positive image for the psychology department*</u>

Please rate the following qualities of the experimenter. Circle a number for each question

	Definitely Not						*Definitely*
Pleasant	0	1	2	3	4	5	6
Clear	0	1	2	3	4	5	6
Sensitive	0	1	2	3	4	5	6
Efficient	0	1	2	3	4	5	6
Prejudiced *****	0	1	2	3	4	5	6
Rude	0	1	2	3	4	5	6
Unfair	0	1	2	3	4	5	6
Inconsiderate	0	1	2	3	4	5	6

***** *IF YOU SELECTED A RESPONSE OF 1 OR MORE FOR THE RATING OF PREJUDICE, PLEASE INDICATE* WHETHER YOU THINK THE EXPERIMENTER WAS PREJUDICED AGAINST ANY OF THE FOLLOWING LEGALLY PROTECTED GROUPS. Select all that apply.

a. A racial minority group
b. Women
c. A religious group
d. An age group
e. People with disabilities.
f. Other. (Please specify _____)
 Please continue on to the next page.

Experiments should be designed so that there is no discrimination on the basis of race, sex, religion, or disability.

Please rate the extent to which you believe discrimination on any of the following occurred in the study.

	Rating of whether behavior occurred						
	Definitely not						Definitely
Race	0	1	2	3	4	5	6
Sex	0	1	2	3	4	5	6
Religion	0	1	2	3	4	5	6
Age	0	1	2	3	4	5	6
Disability	0	1	2	3	4	5	6

Experimenter Effectiveness:

The experimenter(s) should clearly, openly, and completely describe the study.

1. Was everything clear in this study? If no, please describe.

2. Did anything seem suspicious in this study? If yes, please describe.

3. What was the purpose of this study?

Additional issues

Are there any additional issues you wish the department to know about this study?

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MANUSCRIPTS

Swim, Janet K., Pearson, Nicholas B., & Johnston, Kristen (2005). Daily encounters with heterosexism: A week in the life of lesbian, gay, and bisexual individuals. Journal of Homosexuality.

School Spirit Study Group. (2004). Measuring school spirit: A national teaching exercise. Teaching of Psychology, 31, 18-21. [A consortium of instructors at 20 colleges and universities, including myself completed this project.]

Swim, Janet K., Johnston, Kristen, & Pearson, Nicholas B. (2005). Heterosexist hassles: Affective and behavioral responses to everyday experiences with heterosexism. Journal of Counseling Psychology. Manuscript under review.

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