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Masculinity and Homophobia: Does Masculine Threat Increase Homophobic Behavior?

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## Abstract

Threatened masculinity may play a role in homophobic responses in college men. In this study, homophobic or non-homophobic responses to a gay confederate were measured after a masculine threat or no threat manipulation. 49 college men participated in the study: 24 in the masculine threat condition and 25 in the no threat condition. Masculinity level was pre-determined in an initial phase one testing using the Male Role Norms Scale (MRNS). In the masculine threat condition, participants were given a test that was said to measure masculine knowledge and then received false negative feedback. The no threat condition involved a general knowledge test in which no feedback of any kind was given. After the manipulation, the gay confederate would come in wearing a gay pride tee shirt and carrying a backpack with gay pride paraphernalia on it. Homophobic behavior was measured by a professionalism questionnaire given to all participants. In this questionnaire, the participant was asked to rate the gay confederate ('experimenter') on a number of dimensions. We hypothesized that those who had been in the masculine threat condition and experienced physiological threat would rate the experimenter poorly, thus exhibiting a homophobic behavior, when compared to the no threat condition. Our results showed marginal significance for the threat manipulation causing physiological threat,  $F(1,36) = 2.902, p < .097$ . Results did not, however, support our hypotheses regarding self-esteem  $mF(1,29) = .077, p < .783$ , or masculinity level,  $mF(1,30) = .080, p < .780$ . An interaction effect for condition and physiological threat for the rating of the experimenter showed that those who were not threatened rated the experimenter worse than those who were threatened, but only in the masculine threat condition,  $F(1,36) = 11.251, p < .002$ . These results warrant further investigation to better understand the relationship between masculinity, self-esteem, and homophobia.

## Masculinity and Homophobia: Does Masculine Threat Increase Homophobic Behavior?

Since the 1970s, prejudicial attitudes towards homosexuals have been declining (Jones, 2002). Contrary to this trend, there has been an increase in hate crime towards homosexuals (Herek, 1989). If attitude is a predictor of behavior, why have discriminatory behaviors risen while prejudicial attitudes have declined? A variety of theories suggest that prejudicial attitudes and discriminatory behaviors are not as linked as one might imagine. Currently in United States society strong egalitarian norms exist that make it taboo to express prejudice (Gaertner & Dovidio, 1986; Dovidio & Gaertner, 1991). Because of the discrepancy between the occurrence of prejudicial attitudes and incidence of discrimination or hate crime, it can be inferred that past discriminatory behavior may be a better predictor of future discriminatory behavior than prejudicial attitudes. Studies that have investigated homophobia have primarily examined homophobic attitudes rather than homophobic behaviors. Because of the apparent discord between anti-gay attitudes and homophobic behavior, research examining the predictors of homophobic behavior is needed to supplement the existing literature that has investigated anti-gay attitudes.

One factor that has been linked with homophobia is degree of masculinity. It has been postulated that homophobic behaviors or actions may be a way for a young man to affirm his masculinity (Herek, 1995). Similarly, anti-gay discrimination may be a way to maintain a certain level of self-esteem. Masculinity is a central aspect of the self-esteem of most men (Sharpe & Heppner, 1991; Jakupcak, Lisak, & Roemer, 2002). Because masculinity is crucial to most men's self-esteem, a threat to that masculinity is likely to be seen as a threat to the man's self-esteem. Levels of high self-esteem and also of unstable high self-esteem have been correlated with a greater propensity for interpersonal



violence especially in the face of an ego threat (Baumeister, Smart, & Boden, 1996). This study addressed these issues by either threatening or not threatening the masculinity of male participants after which the participants had the opportunity to perform a negative behavior towards a “gay” confederate. It was predicted that those participants with high masculinity would have more of a reason to discriminate following a masculine threat compared to low masculinity men. Therefore, the more threatened a high masculinity participant finds himself, the more likely it becomes that he will display an anti-gay behavior.

There were three components to the conceptual framework of this study. The first was that there are discrepancies between attitudes and behavior and that present behavior is a better predictor of future behavior than current attitudes (Ajzen, 1991; Ajzen, 1985; Ajzen & Fishbein, 1980; Doll & Ajzen, 1992). Thus, the participant requested to complete a questionnaire about the experimenter’s professionalism, which gave the participant an opportunity to rate the experimenter badly in a way purported to affect the experimenter’s future employment and engage in a homophobic behavior. Rating the experimenter badly was seen as a negative behavior aimed at the “gay” experimenter.

The second component was that when people feel threatened, they will try to self-affirm (Steele, 1988). Self-affirmation states that a person will strive to restore a positive view of self once that view has been threatened. Thus, if a man has his masculinity threatened, he will have a greater propensity to act homophobic in order to restore his sense of masculinity.

Third, self-esteem resources play a role in how people react to threat and also in how they affirm (Baumeister & Tice, 1985). It was postulated that those men who are

threatened and have high self-esteem with feel a greater need to affirm. These three concepts are discussed in detail below.

### *The Discrepancies Between Attitudes and Behavior*

Although it is tempting to define discrimination in relation to prejudice, the two are conceptually distinct. A person who harbors prejudice may chose not to act overtly on those attitudes... Just as a prejudiced individual may not behave in a discriminatory fashion, so too may discriminatory acts not be based necessarily on prejudicial attitudes. (Jones, 2002, p. 9)

When a person holds both a positive and a negative attitude for a target, attitudes are manifested as neutral during abstract evaluation, or questionnaires; this false neutrality is called attitude ambivalence (Eagly & Chaiken, 1998). For example, an individual who appears to have neutral attitudes towards gays, may in fact have positive and negative attitudes towards gays; this positive and negative attitude towards the same target is attitude ambivalence. In a study on attitude ambivalence, Kaplan (1972) tested the accuracy or viability of attitudes which appear to be neutral by having two scales. The first scale assessed the level at which the participants gave positive assessments to the attitude target/object, and the second scale assessed the extent participants gave a negative assessment of the attitude object/target. He found that some neutral responding was actually attitude ambivalence. The neutral appearance that occurs when attitudes are ambiguous clouds the mechanisms that determine behavior. For example, when a person holds a neutral attitude it appears that person would be undecided with regards to any behavior based on that attitude, but this does not occur. One attitude will normally predominate to produce a behavior congruent with that attitude and not the other attitude.

Cacioppo and Bernston (1994) stated that avoidance tendencies usually produce stronger effects than approach tendencies. This suggests that the negative components of people's attitudes exert more control upon their behavior than the positive components (Eagly & Chaiken, 1998). If this is true, it follows that a person who holds a seemingly neutral attitude towards a target, could actually have a higher propensity towards a negative behavior than the original attitude suggests. Thus, the behavior may not necessarily follow from the person's expressed attitudes. This has been shown as especially true with prejudicial attitudes towards minorities (Jones, 2002). One reason for this are the egalitarian norms of this country, which also make reported attitudes less favorable predictors of behavior, especially when the behavior is discriminatory.

According to analyses by Gaertner and Dovidio (1986, 1991) our country has strong egalitarian values that are reinforced through the media and through schools. They have examined how American's attitudes are strongly effected by our egalitarian value system. We often have both egalitarian attitudes and prejudiced attitudes towards the same target resulting in ambivalence. These egalitarian attitudes contradict many prejudicial attitudes and keep many people from expressing prejudicial attitudes. Thus, prejudicial attitudes are probably more prevalent than they may seem, because they are masked under attitude ambivalence. Persons' prejudicial attitudes can reflect their own experience with disadvantaged groups, their family's view towards disadvantaged groups, and/or the negative stereotypes of disadvantaged groups. In fact, negative stereotyping of minority groups is still very prevalent in our society and is a part of our culture (Gaertner & Dovidio, 1986, 1992). The battle between egalitarian attitudes and negative attitudes can be expressed in many ways. For example, questionnaire items that ask about whether gays should have equal housing opportunities and equal employment

opportunities show that many people support gays having equal rights. When these same people are asked about their feelings towards gays as a group, their attitudes remain negative (Jones, 2002). In the specific questions people are primed to remember that egalitarian ideal (the egalitarian attitude is salient), while in the general evaluation of gays as a group the egalitarian ideal is not as salient. This complexity of prejudicial attitudes is one of the possible causes of the attitude – behavior discrepancy. Because of this egalitarian ideal, racial prejudices have now become widely labeled as “aversive racism” and “modern racism” or a more covert form of discrimination and prejudice (McConahay, 1986; Gaertner & Dovidio, 1986). This covert discrimination may be applied to homosexuality as well. Homosexuals are fast becoming one of the most discriminated against minorities and they face the same kind of modern or covert discrimination that African Americans face (Jones, 2002).

Fishbein and Ajzen (Ajzen, 1991; Ajzen, 1985; Ajzen & Fishbein, 1980; Doll & Ajzen, 1992) have stated that it is the attitude towards performing the behavior that is a stronger predictor of behavior than simple attitudes or attitudes towards the target. They have labeled this the theory of reasoned action. This theory suggests that the attitude that occurs closer to the behavior is the attitude that is most likely to influence the performance of the behavior. Thus, the *attitude towards the behavior* is what occurs right before the intention to perform the behavior. Coupled with this is the reflection upon any subjective norms that might constrain the behavior. So before performing a certain behavior, a person must weigh the attitude towards the behavior and the subjective norms surrounding that behavior.

The theory of reasoned action was later revised to account for perceived behavioral control and renamed the theory of planned behavior (Doll & Ajzen, 1992).

Individuals can react only by accessing a limited number of their beliefs and attitudes about one target. Therefore, whatever information a person receives at the time of the situation will enable them to access certain beliefs and attitudes. In turn, these beliefs and attitudes will influence behavior. These beliefs are put into three distinct categories: behavioral beliefs, normative beliefs, and control beliefs (Doll & Ajzen, 1992). First, the person's attitudes towards the behavior are influenced by cost-benefit analysis and the anticipation of a certain outcome. Second, the subjective norms need to be assessed based upon the expectations of the group of individuals surrounding the action and social pressure. Third, perceived behavioral control will be assessed by past experience with the behavior, second hand knowledge about the behavior, resources and opportunities, and the actual ease or difficulty of going through with the behavior. Thus, the attitudinal forces that are driving one behavior are extensive.

Because of the ambivalent nature of prejudice and discrimination, the bridge between attitudes and behavior are even more difficult, to predict or even discern. Even the attitudes that are most predictive of behavior according to the theory of reasoned action or the theory of planned behavior are multideterminant. Because of this attitude multideterminance, it should be especially difficult to predict discriminatory behaviors from reported attitudes towards a target behavior. Further confounding the link between attitude and behavior is that individuals are hesitant to report attitudes which confirm any kind of prejudice or discrimination (McConahay, 1986; Gaertner & Dovidio, 1986). People are very covert about their attitudes towards discrimination and towards minorities in general, so attitudinal surveys become a very unreliable measure of both the attitudes a person really experiences and of future behavior. Present behavior may be a better way of assessing propensity to behave a certain way in the future. Present behavior

is also a better way to examine what may make a person more likely to exhibit discrimination in real life. The best opportunity for discrimination to be expressed in a lab, based upon aversive racism, is an opportunity where the person can logically believe he or she is being covert. If a person shows a particular discriminatory behavior in the lab after an ego threat, it provides evidence of affirming the self after the threat by acting discriminatory and also makes it seem likely that the behavior is likely to occur again.

*Self Affirmation and Affirming Through Situational Opportunity*

When the very most important aspects of the self are threatened, so that there are no equally important alternative self-images, self-affirmations that address the provoking threat should be more effective than affirmations of these less important, alternative self-concepts. (Steele, 1988, p. 292)

Claude Steele (1988) proposed the existence of a system that functions to allow us to explain “ourselves to ourselves” (p. 292). He argues that the ultimate goal of this explanation is to allow us to have an experience of our self as good, competent, coherent, stable, and in control. The processes that permit us to have a constant view of self as positive are called self-affirmation processes. Steele (1988) proposes that these processes are activated by incoming threats to the self. Once the affirmation cycle has begun it will likely keep seeking to regain the positive image through action, rationalization, or dissipation.

Self-affirmation was first suggested to Steele during an experiment on the effects of name-calling on compliance (Steele, 1975). For the self-threat portion of the experiment, women in Salt Lake City were phoned at home during the day by a male confederate acting as a pollster. He then proceeded to tell the participants in the negative

image condition that the women in their area were known for their non-cooperation with community projects (name-calling). In the second telephone call, which seemed unrelated to the first, the women were asked if they would be willing to help with a community project food co-op. The women needed to list everything in their kitchen to guide the wholesale purchases for the co-op. The prediction was that those who were threatened would have inconsistencies in their self-image based upon the implications of the name-calling and the woman's own self-concept of being cooperative. Therefore, the subjects in this condition would want to participate in the co-op in order to bolster or restore their self-concept of being cooperative. The results showed that those who had been called a negative name were twice as likely to participate as the positive name and almost three times as likely than the no name calling control condition. Steele argued that the "name-calling induced helping in this study by arousing a general ego-protective system, one function of which is to affirm an overall self-concept of worth after it has been threatened" (Steele, 1988, p.266). The helping induced by name-calling was a way for the individuals to affirm their sense of worth after threat.

Self-affirmation processes are self-protective in other ways. Affirmation is based upon the idea that once an important self-concept is threatened, the first self-defensive act is affirming the integrity of the self to maintain a positive experience of the self. The ability to affirm protects the self by allowing an individual to deflect threats to the self. Therefore, the motivation to adapt or redefine the self-concept in relation to a self-threat can be derailed by an affirmation process, which saves oneself from having to redefine oneself negatively. The process that keeps an individual from redefining their self-concepts negatively can involve affirming a broader self-concept than the one threatened or an equally important area of the self that is unrelated to the threatened area. All of this

can be done and is often done without resolving the initial threat. Therefore, an individual whose generosity has been threatened, can affirm by taking the next opportunity to be generous, thus, restoring the threatened self-concept. This individual could also affirm by taking the next opportunity to perform in his band (if his musicality is as important to him as his generosity), or he could affirm by drawing on his broader self-concept that he is an all-around good person. The specific domain of the affirmation is not as important as it may seem. What is important is that the area used to affirm be as important to the person as the threatened area. An individual has many different restorative options during the affirmation process. A person does not have to restore consistency between the threat and the original concept of the self; behavioral or cognitive changes can be made which affirm the sense of self but leave the inconsistency (Steele, 1988). In all of Steele's experiments, the subjects dealt with the self-threats by affirming important and valued aspects of the self.

Self-affirmation theory is of importance to this study because it hypothesizes that when the most important areas of the self are threatened, and there are no other equally important self-images, the self-affirmation that confronts the provoking threat should be most effective (Steele, 1988). In our study, false negative feedback was given to both high masculinity men and low masculinity men. Then, an opportunity to affirm masculinity was given by having the person rate a gay confederate's professionalism on a questionnaire. The man can affirm his own masculinity through bashing the social epitome of non-masculinity. For men who scored high in masculinity, it could be assumed that their masculinity was important to them and was a critical part of their broader self-image and self-esteem. If their masculinity is threatened, and no other self-concepts exist that are as important as masculinity, action should be taken which



confronts the masculine self-image threat and seeks to dissipate that threat. Thus, it would be most effective for a man to affirm his masculinity in the face of masculine threat, not just his broader self-concept or another important area. Because masculinity is of so much importance to many men, it is a major defining factor of men's self-image and self-esteem. If masculinity is a defining factor of self-esteem in men, then there may not be any other areas a man can use to affirm in the face of a masculine threat, because there will not be any other self-concepts that are as important. This may not, however, be the case for all men. A man whose writing talent is as important to him as his masculinity, may affirm through this area instead of his masculinity.

Also important issue about self-affirmation is that a person will use whatever means are most salient or available in order to affirm (Steele, 1993). Often a person does not get to affirm through reacting to the situation. Sometimes this is because it is inappropriate, such as in the workplace, or not possible, such as when the person who caused the threat is gone. Most people will use the situational context to self-affirm in real life because it is what is most salient and available. Affirmation occurs when a person validates their sense of self through reflecting upon their other qualities in the face of an ego threat as stated, but when a situational opportunity is available it will be taken. Steele states, "After real life self-image threats, a person's attention will be directed, most likely, toward the provoking threat. Thus, the first attempts at self-affirmation are likely to be focused on this threat" (1993). In our experiment, right after the false negative feedback, the opportunity to affirm through the situation, by addressing the provoking threat, was present in the professionalism questionnaire. In this experiment, it was predicted that the professionalism questionnaire was the most salient means for the participant to self-affirm. As this was presented right after the manipulation, we

hypothesized that the person would use this chance to affirm and not try to affirm by rationalizing their other positive self-concepts. Thus, the participant likely took the opportunity to “gay bash” on the professionalism questionnaire in order to affirm their overall self-image and also their masculinity.

Steele has also done research focusing on levels of self-esteem and self-affirmation (1993). In these two experiments Steele investigated whether or not individuals can soothe their reactions to self-image threats by using self-knowledge and other beliefs about the self that confirmed their overall adequacy. Empirical support for this hypothesis could be extended to the idea that people with a larger pool of favorable self-concepts will be more resilient to self-image threats. Those with a plethora of favorable self-concepts would be high in self-esteem (HSE) and those with scant favorable self-concepts would be low in self-esteem (LSE). When one has high self-esteem it is easier for them to draw upon favorable qualities of their self in order to affirm, because they have many images of worth that they can use. Therefore, a person with HSE would not need to rationalize a specific threat because they have so many other qualities with which to affirm. A LSE person would have more of a need to rationalize the threat because he or she does not have many favorable self-concepts to use to affirm. Thus, a level of self-esteem represents the resources a person has available to maintain their self-image in the face of an ego threat: a pool of self-concepts that a person can use to affirm. Steele found that LSE individuals are more accepting of negative information only when self-enhancement would involve making a claim about themselves that they cannot support. When LSE individuals feel that they can self-enhance without making a claim they cannot support, they will self-enhance. His findings also suggested that although LSE individuals have a greater tendency to accept negative information about

themselves, they also have a motive to enhance their self-image in the face of an ego threat. Steele rationalized this discordance by stating that when the LSE's lack of resources to affirm were made salient to them, they had no other choice but to try to neutralize incoming threats. In support of his hypothesis, Steele did find that LSE individuals, those with less affirmational resources, are forced to affirm through rationaliation when their lack of affirmational resources are made salient to them.

*Propensity to Violence and Level of Self-Esteem*

The major cause of violence is high self-esteem combined with an ego threat. When favorable views about oneself are questioned, contradicted, impugned, mocked, challenged, or otherwise put in jeopardy, people may aggress. In particular, they will aggress against the source of the threat. (Baumeister, Smart, & Boden, 1996, p. 8)

Baumeister and Tice (1985) describe self-esteem as a global evaluation of the self, and those who score high on self-esteem are those who emphasize their strengths and abilities while focusing less on any bad qualities. People who score low on self-esteem are more likely to focus on their bad qualities and their weaknesses. When talking about self-esteem Baumeister and Tice address two control systems. The primary control system functions to fulfill goals; while, the secondary control system functions to protect the person from disappointment. Most problems in an individual's life are dealt with by the primary control systems. The primary control system is what drives a person to improve, succeed, and generate new abilities. The difference between HSE and LSE people are that HSE people's primary control system is accustomed to successes and is designed to spur the person to excel. In contrast, LSE individuals believe that their

actions often fail to meet acceptable standards, and the primary control system in LSEs is used to reach satisfactory levels of performance instead of maximal levels of performance. Rothbaum, Weisz, and Snyder (1982) first proposed these control systems as a model and way of explaining the different responses of those individuals with HSE versus those with LSE. Baumeister and Tice (1985) further suggest that with HSE, initial successes activate the primary control system to take them from good to excellent, so when a HSE is doing something new and performs well, their primary control system pushes them to get even better. The primary control system of a LSE will only be activated at the realization of a failure. This signifies to the LSE person that a deficiency must be fixed. For a LSE, if there is no failure or unsatisfactory performance, there is no need to improve at all. Differences like this one also occur with the secondary control systems.

For a person with high self-esteem an initial failure can be devastating for several reasons. Both future courses of action after a failure seem bad to a HSE person. First, future attempts may also bring failure since the initial attempt was so poor. Second, the future attempt may allow the person to become passable, but to a person with high self-esteem being passable is not near the goal of excelling. This is where secondary control behaviors cause a HSE person to act passively towards the situation or to completely withdraw. These control behaviors help avoid the disappointment imminent in either future course taken by the person. On the other hand, initial failure is not something that threatens a LSE person with disappointment. The LSE person will take the opportunity to become passable when the HSE would not, because the goal of a person with low self-esteem is to turn a failure into a passable performance. What does cause a LSE person's secondary control systems to be activated is initial success. This is because they mistrust

the validity of the initial success and doubt their ability to turn the initial success into excellence. Initial success is threatening to someone who has low self-esteem.

The idea that HSE people withdraw after a failure seemed to contradict work done previously by Baumeister (1982). A careful analysis reveals, however that it does not. There has been evidence that HSE people respond by being increasingly persistent after an initial failure (McFarlin, Baumeister, & Blascovich, 1984) and will resort to what they termed “compensatory self-enhancement” in the event of sustained failure.

Compensatory self-enhancement occurs when the person turns his attention to other areas in which they have excelled instead of focusing on the area where they have failed. Note that Steele’s ideas do not go against those of compensatory self-enhancement principles, in fact compensatory self-enhancement principles seem related to self-affirmation principles. The reason persistence is often seen by high self-esteem people in experimental paradigms is that they are not allowed to withdraw by design (Baumeister & Tice, 1985). HSE individuals would likely not naturally persist in this kind of situation. A high HSE person would feel safe in withdrawing because he or she would have areas where he or she has excelled to focus upon. If the HSE participant were allowed to withdraw, the participant would likely dispell the failure by engaging in compensatory self-enhancement or self-affirmation. If the failure were seen as a threat, compensatory self-enhancement could even be seen as an affirmation process. When the participant must continue to participate and risk receiving continued failure feedback, it is the HSE person who becomes distressed. In this case, the HSE person must try to attain passable levels to avoid the humiliation of failing at the task once more. The idea that HSE people react badly to failure, while people with LSE do not, has spurred other important research on the enigma of self-esteem.

Baumeister, Smart, and Boden (1996) have investigated a second potentially negative consequence of high self-esteem. Conventional wisdom in many disciplines, including psychology and sociology, state that low self-esteem is a factor that causes violence and other anti-social behavior, but does this logic hold up? Baumeister, Smart, and Boden (1996) state that the main source of violence is threatened egotism, according to the researchers who believe that LSE is correlated with violence; the problem with this logic is that one must be egotistic to have threatened egotism, and LSE individuals do not. The other problem with the logic, as begun in Baumeister's earlier work (Baumeister & Tice, 1985), is that LSE people are threatened by successes rather than by failures.

Indeed, the case for low self-esteem people being prone to violence is very weak. Furthermore, Baumeister, Smart, and Boden (1996) did not find empirical support in any literature of the theory that low self-esteem is a cause of violence. While the authors admit that this idea is logically possible, it has been shown in repeated experiments that motivation to enhance the self is characteristic of high self-esteem and not low self-esteem (Baumeister, Tice, & Hutton, 1989; Tice, 1991).

Another idea that was debunked in this article is that people desire to see themselves in a positive light and people with high self-esteem have satisfied this need, so they can ignore it while low self-esteem people cannot. But, research has found that people with high self-esteem are not immune to insults and they sometimes have very irrational responses to negative feedback (Baumeister & Tice, 1985; McFarlin & Blascovich, 1981). When we think of violence we think of risk-taking, and risk-taking involves a confidence that high self-esteem people have and low self-esteem people do not (Baumeister, Smart, & Boden, 1996). Having such a high confidence is often

referred to as egotism, and this is a characteristic of high self-esteem rather than low self-esteem.

Baumeister, Smart, and Boden (1996) propose that high self-esteem in the face of an ego threat triggers violence, rather than high self-esteem in isolation. When people's favorable self-concepts are contradicted or challenged, they may aggress towards the source of that threat. When a person with high self-esteem receives an ego threat, the threat contradicts their favorable self-views and suggests that they should have less favorable views; it is the people who will not lower their favorable views of their self who become violent. People with low self-esteem are very concerned with protecting their ego from threat and avoid situations that could cause them to lose esteem, but high self-esteem individuals do not have this same tendency because they never suppose that they could fail. This makes it more likely that a HSE will be put in a situation where their ego becomes threatened. When HSE people do fail, they often act out in drastic ways (Baumeister & Tice, 1985; McFarlin & Blascovich, 1981).

### *Purpose and Rationale*

This proposed study integrated the need to affirm after an ego-threat, the relation of self-esteem to negative/homophobic behaviors, and predictors of actual behavior rather than attitudes. Based on an integration of the prior literature, I predicted that when faced with an ego-threat, a highly masculine man, relative to a low masculine man, will feel greater need to affirm through acting homophobic by rating the "gay" confederate badly. Further, Baumeister's work investigating violence and self-esteem suggests that those high masculine men with HSE will rate the confederate the worst.

Furthermore, an experimental manipulation with the opportunity to perform a behavior against gays after masculine threat can provide insight about the relationship of

threats to masculinity and propensity to commit homophobic behaviors. Second, because the correlation between attitudes and subsequent behavior is moderate at best and may be especially weak concerning prejudice and discrimination, a behavioral task is critical to understanding what a person might do in a real life situation. Third, once men have been threatened they have a reason to affirm both their masculinity domain and also their overall self-esteem by taking the opportunity to “gay bash.” They may restore their sense of masculinity by giving a bad rating to a person who represents effeminacy and thus affirming their sense of self as a masculine man.

The two conditions in this study were the no threat condition and the masculine threat condition. Subjects were men separated into high and low masculinity groups using a median split. Specific hypotheses for this experiment were first that those participants in the threat condition would experience physiological threat, and that those in the no threat condition would not experience physiological threat; second, masculine men who were in the threat group and physiologically threatened would show the worse rating of the experimenter on the professionalism questionnaire; third, masculine men with high self-esteem in the masculine threat group and physiologically threatened would rate the experimenter worse than those with low self-esteem.

## Methods

### *Overview*

Participants were recruited in phase one, which identified men in the extremities of masculinity, both high and low. Participants who fell into one of these categories were phoned to participate in the actual experiment two to ten weeks following phase one. In phase two, two conditions were used: masculine threat and no threat. There were equal numbers of both groups in each category. In both conditions, psychophysiological



measures were recorded in order to check whether the participant was experiencing threat. After the experimental or control phase, participants were asked to rate the experimenter who was actually a gay confederate. The behavior of rating the professionalism of the confederate, which was presented as affecting the future employment of the confederate, was the primary dependent variable. A secondary focus was on the role of self-esteem and the propensity to discriminate or act violent. Specifically, do highly masculine men of high self-esteem discriminate more after masculine threat relative to other conditions? In another part of this study, not reported here, the focus was on attitudes and attitude change. The administration of these survey measures occurred at the end of the study after the experimenter professionalism questionnaire. These measures are discussed in another paper.

### *Participants*

Participants were 49 male undergraduates at Illinois Wesleyan University and Illinois State University. 24 participants were randomly assigned to the threat condition and 25 to the no threat condition. The Illinois Wesleyan participants were enrolled in introductory psychology courses at the time of the study. Students must participate in three hours of research for general psychology or complete an alternative assignment. Students were informed of studies and sign up in the basement of the Center for the Natural Sciences. The participants received class credit for participating in the study.

Illinois State University students filled out questionnaires during class time and did not sign up for the initial phase of survey data. Students either received class credit or extra credit for participating in the research.

### *Setting and Apparatus*

For phase one of the study, testing sessions were held at both universities. IWU students signed up for testing sessions that were held in a lecture hall in the Center for the Natural Sciences. Participants completed the measures of interest to this study as well as filler measures to disguise the true nature of the experiment. During phase two, the manipulation phase of the study, IWU participants were tested in one of the psychology research labs on the second floor of the Center for the Natural Sciences at Illinois Wesleyan University. ISU participants were tested in one of the research labs in the basement of the psychology building at Illinois State University. Two rooms were used for this experiment. One of the rooms housed all of the recording and monitoring devices as well as the laboratory computer. During the duration of the experiment, the participants were in an adjacent room seated in a comfortable chair with arm-rests. This room was where the participants will stay for the manipulation.

Physiological measures were recorded using a Minnesota Impedance Cardiograph (model 304B, instrumentation for medicine, Greenwich, CT), a Colin Arterial Tonometry Blood Pressure Machine (model 7000, Colin Instruments Corporation), a Biopac analog to digital signal converter (Biopac Corporation), and an IBM computer. A Macintosh 6100/600 computer will deliver the masculine and general knowledge tests and gave the false negative feedback at IWU, and a Macintosh 8100 will serve the same function at ISU.

### *Measures*

*Physiological Measures.* Impedance was assessed using four mylar/aluminum electrode bands. One pair of electrode bands was placed around the neck with the first one on the collar bone and the second at least three centimeters above. Another pair of

electrode bands were placed on the trunk with the first one being at the xiphisternal junction and the second being at least three centimeter below. The first electrode band in each pair measured the impedance to a 4mA AC 100kHz signal maintained by the second electrode band in each pair. A standard silver/silver chloride spot electrode Lead II configuration (right clavicle, left base of rib cage, right iliac crest ground) provided the ECG signals. The Colin AT machine provided a noninvasive, continuous measure of blood pressure. Colin includes an automatic inflation cuff and a wristband sensor which is placed over the radial artery. An interactive software program was used to record and later score the cardiac and hemodynamic data.

Cardiac and hemodynamic patterns were recorded using noninvasive equipment meeting hospital safety standards and following the guidelines established by the Society for Psychophysiological Research (e.g., Sherwood et al., 1990). Electrocardiographic (ECG) and impedance cardiographic (ZCG) recordings provided continuous measures of cardiac performance. Continuous diastolic blood pressure (DBP) and systolic blood pressure (SBP) were recorded as well. Impedance cardiography provides the basal thoracic impedance signal ( $Z_0$ ) and the first derivative of  $Z_0$  ( $dZ/dT$ ).  $dZ/dT$  is the change in the impedance signal over the change in time. This signal is used to compute pre-ejection period (PEP), and inter-beat interval (IBI). Pre-ejection period is a measure of ventricular contractility (VC) and sympathetic control of the heart. PEP is the period of left ventricular contraction before the blood is expelled into the aorta. Cardiac output (CO) is a measure of the amount of blood pumped by the heart per unit of time. Inter-beat interval is the time period between each beat of the heart. From this information and the blood pressure information, total peripheral resistance (TPR) was computed using the formula (mean arterial pressure/cardiac output)  $\times$  80 (Sherwood et. al., 1990). TPR

measures the total resistance to blood flow in the body and a measure of autonomic control of arterial contractility. TPR goes up with vasoconstriction and down with vasodilation.

Cardiovascular reactivity measures, which are changes from baseline, were used to differentiate the threat pattern of reactivity from the challenge pattern of reactivity. This measure was used to test whether the participant was threatened after receiving the false negative feedback in the masculine threat condition and as a comparison for the no threat (control) condition. We were particularly interested in the patterns of PEP, CO, and TPR in the participants since these are the measures involved in established threat and challenge patterns (Tomaka et. al., 1993). Patterns associated with challenge are an increase in PEP, with an increase in CO, and a decrease in TPR. This means that the challenge pattern is greater cardiac activity coupled with a reduced vascular resistance, and this pattern is observed relative to the threat pattern. Threat patterns are characterized by a slight decrease in PEP, a slight increase in CO, and an increase in TPR. Thus, threat appraisals are characterized by less of a change in cardiac reactivity and an increase in vascular resistance. The primary flag for a threat response is an increase in TPR.

*Trait measures.* In the initial testing session, phase one, participants completed the Male Norm Role Scale (MRNS) and the Rosenberg Self Esteem Scale (RSE). Only those participants from IWU completed the RSE as a phase one measure. Due to time constraints, the RSE could not be included in the phase one measures at ISU.

The Male Role Norm Scale (MRNS) is a twenty-six-item measure that assesses the participants' opinion of what constitutes the male role (i.e., "A man should never back down in the face of trouble"). Participants were asked to rate the extent to which

they agree or disagree with the statements on a 7-point likert scale between “very strongly disagree” and “very strongly agree.” Higher scores on this scale indicate higher masculinity.

The second scale of interest is the Rosenberg Self-Esteem Scale (RSE). This is a well known, well validated, and frequently used measure of global or trait self-esteem (Fein & Spencer, 1997;). There are ten items on a 4 point scale ranging from “strongly agree” to “strongly disagree.” It contains items such as “I feel that I am a person of worth, at least on a equal basis with others.” Participants rated the extent to which each statement is descriptive of themselves.

The MRNS and the RSE were embedded within the Loneliness Dimensions Scale (LDS), the Rational Emotive Inventory (REI), the COPE (a measure of active and passive coping styles), and the Marlowe-Crowne Social Desirability Scale (MCSDS). The data from the LDS, REI, COPE, and MCSDS surveys are not reported or discussed here because they are a part of a different study. Also included was a demographics questionnaire that includes questions about the participants’ gender, age, year in school, and ethnicity. Participants were also asked to provide their name, phone number, and an e-mail address so that they may be contacted for the second part of the study.

In addition, after the experimental manipulation, a questionnaire was included to assess the participants’ impression of the confederate’s professionalism (Appendix 1). Responses to this questionnaire were viewed as if an actual behavior towards the “gay” experimenter after the experimental manipulation instead of being merely an attitudinal measure. This questionnaire provided the masculine threat condition participants with the opportunity to give the experimenter a bad rating because he is gay and to thus reaffirm threatened masculinity. Items included questions such as “In your opinion, how

PROFESSIONAL was the researcher who conducted your session today?” and “The principle experimenter is doing a good job in conducting this study?”

### *Procedure*

The experimenter greeted participants as they arrived at the classroom for phase, one, the initial testing session. Participants were told that the study was related to the social and emotional lives of students. Participants then signed two informed consent forms, one being for their record and the other for the experimenters. This form also stated that they may be contacted by phone to participate in further research for additional research credit. The participants were then informed that if they were phoned back for further participation that participation would be appreciated but not required. During this initial testing session, participants completed the MRNS, the RSE, the LDS, the REI, the COPE, the MCSDS, and a demographics questionnaire. Participants were told that they could chose to answer or not answer any of the questions and that they may withdraw from the study at any time. Participants were instructed to place their questionnaires back into the folder when they finished and to hand them to the experimenter before leaving.

ISU students filled out the surveys in their introduction to psychology and social psychology courses. The procedures for conducting the experiment at ISU were the same as those for conducting the experiment at IWU. Participants at ISU only needed to fill out one informed consent form. The rooms used at ISU were slightly smaller than those used at IWU but the rooms are set up similarly.

Any male participant that was qualified for the second half of the study based on their questionnaires, was phoned and asked to return for the second part of the experiment. Qualification for the second half of the study was determined by the answers

to the MRNS questionnaire. Only those participants scoring at either the high masculinity extreme or low masculinity extreme were asked to return via a telephone call for further research. Due to a low participation rate, we were forced to include all levels of masculinity and to then determine level of masculinity after all data collection by using a median split.

When the participant arrived for the second half of the study, phase two (two to ten weeks following phase one), he was greeted by both experimenters involved in the second phase. One of the experimenters was a female and the other a male confederate. The female experimenter read a verbal informed consent to the participant and also gave the participant two informed consent sheets (only one for ISU, which was kept in the participant's folder). One of these sheets was returned to the experimenter and placed in the participant's folder. The verbal informed consent included the nature of the hook-ups that were done and a very general nature of the study. After informed consent was obtained, the experimenters took the participant to be hooked-up. The female experimenter performed the taping of the electrode bands and spots, the connection of the leads, and the placement of Colin while the male experimenter (confederate) looked on. When the female experimenter was finished with the hook-up, the male confederate checked to make sure the electrodes were in the correct position and securely attached. He also touched the participant by the band electrodes and leads during this process. The goal was to further heighten the participant's sense of threat and thus their homophobic response on the experimenter professionalism survey. Once the participant was ready, the computer person in the adjacent room began the process to collect the data.

Data was collected from a separate room in timed blocks using a physiological software program. The first block was a test block where nothing was being recorded.

The purpose of this block was to insure that the equipment was working correctly and that the signal was clean. When the signal was not clean, the computer person told the other experimenters that they needed to recheck the participant. The experimenters then problem-solved until the signal was clean. Once the computer person informed the other experimenter that the signal was fine, the participant was told that the testing phase was about to begin. The experimenter informed the participant not to move, as movement would distort the signal. The participant was also told to relax during the baseline recording phase, and then experimenter left and dimmed the lights. The rest period was then started and the computer recorded the minute to minute systolic and diastolic blood pressure values as well as the ECG and  $dZ/dT$ .

*Manipulation of masculine threat.* The participants were randomly assigned to one of two conditions: the masculine threat condition or the no threat condition (control). Equivalent numbers of extremely high masculinity and extremely low masculinity was included in each condition. Both conditions consisted of two sequences of twenty-five questions. In the masculine threat condition participants were told that they were going to be given a test to measure “masculine knowledge” (MK) through a series of questions that were “designed to assess the masculine knowledge normally acquired during the life of the average American college student.” The computer showed the directions for the task, and the participant was asked to read them. Part of the directions stated that the participants had up to ten seconds to answer each of the questions. Participants were informed that if they did not respond to a question within the ten seconds, the question would disappear and the next question would automatically appear. The participant initiated the test by pressing the space bar and at that time the physiological recording block began. Participants answered twenty-five questions that appeared to be measuring



their ability and knowledge in stereotypically masculine areas, such as car repair and parts, sports history, sports statistics, etc. Once the participant finished answering the first twenty-five questions, the computer reported to the participant that the first portion of the test was over and that they should press the space bar to continue. The participant then saw, on the computer screen, that their score was being computed and recorded. After ten seconds, a bar graph appeared on the screen, displaying that the participant scored “one standard deviation” below the average for the average male college student. The participant’s score remained on the screen for a period of thirty seconds. A message on the top of the computer screen instructed the participant to press the space bar again to continue to the second portion of the test. After the participant answered the second twenty-five questions, the computer screen stated that the testing was over. During the second set of questions the experimenter came back into the room, but was careful not to watch the participant answering questions. The experimenter waited for the participant to finish the test.

In the control condition (no threat) participants were told that they were taking a test that was “designed to assess the general knowledge (GK) normally acquired during the life of the average American college student.” The participants answered fifty questions measuring general knowledge. Unlike the masculine threat condition, participants did not have a break after twenty-five questions where they received feedback. Instead of feedback, the break consisted of the computer screen remaining blank for forty seconds. After the forty seconds the instructions to move on to the second portion of the GK test appeared on the screen. This concluded the manipulation portion of the study.

The participant was then asked to fill out the professionalism questionnaire. The confederate carried a backpack with a gay pride patches and buttons on it. The confederate placed the bag in front of the participant to insure that he noticed the patches. The confederate looked through the backpack for the questionnaire, informed the participant that the questionnaire was probably misplaced, and then left the room to find the questionnaire leaving his backpack behind. The time that the confederate was gone gave the participant time to process the gay pride patches and make the association that the experimenter might be gay. Once the confederate came back with the questionnaire, the participant was left alone in the room to fill out the professionalism questionnaire and then seal it in an envelope. The female experimenter then collected the envelope the participant had been instructed to put the professionalism questionnaire inside. She then gave the participant the packet of questionnaires including the ATLG, the QDI, the ATG, the RSE, and a series of feeling thermometers about Muslims, women, and Blacks (for the other part of the study). When the participant finished the questionnaires, the questionnaires were placed back into a folder. The participant was then thoroughly debriefed, assured that the confederate was not really gay, and asked not to discuss the purpose or nature of the study with any other students. Once a confidentiality agreement was made, the participant was thanked for his participation, given his research credit, and dismissed.

## Results

Our first hypothesis, that those participants who were in the masculine threat condition would be physiologically threatened, was tentatively supported. There was a marginal effect for TPR, suggesting that it did increase in the masculine threat condition,  $F(1,36) = 2.902, p < .097$ , which was marginally significant (Figure 1). PEP also

decreased in the masculine threat condition, but not by a statistically significant rate,  $F(1,36) = 1.672, p < .204$ . Cardiac output had very little change in either condition. Means and standard deviations for TPR, PEP, and CO are reported in Table 1.

Our second hypothesis, that men high in masculinity who were in the masculine threat condition and physiologically threatened would rate the experimenter more poorly on the professionalism questionnaire, was not supported. The MANOVA of condition by masculinity score by physiological threat for the dependent variable of the professionalism responses was not significant,  $mF(1,36) = .08, p < .780$ . The observed effect of this test, although not significant, ran opposite to our hypothesis. Those participants who were of high masculinity, physiologically threatened, and the masculine threat condition, actually rated the experimenter more favorably,  $M = 73.3, SD = 3.1$ , when compared to those in the same condition who were not threatened. High masculinity participants in the no threat condition who were not threatened rated the experimenter favorably as well,  $M = 76.2, SD = 5.9$ . The confusing part, the part that although non-significant goes in the opposite direction of our hypothesis, comes when we examine the answers of the low masculinity participants. The low masculinity group who were in the masculine threat condition and were physiologically threatened rated the experimenter worse than the high masculinity participants,  $M = 67.5, SD = 6.9$ . The low masculinity participants who were in the no threat condition and not threatened also rated the experimenter poorly compared to the high masculinity participants,  $M = 73.3, SD = 3.7$  (Figure 2).

However, the test of condition by physiological threat for the dependent variable of the professionalism questionnaire was significant for an interaction effect,  $F(1,36) = 11.251, p < .002$ . While this does not necessarily support our hypothesis, the masculine

threat group who were physiologically threatened did rate the experimenter worse than those participants who were in the no threat group and were not physiologically threatened (Figure 3).

Level of self-esteem was calculated using a median split in addition to the calculation of the self-esteem total score. Self-esteem itself was not correlated with the rating of the principle experimenter,  $r = .130, p < .374$ . Self-Esteem had no significant effect on the participants' rating of the experimenter when used as a covariate. For the effects of condition by physiological threat by masculinity level for the dependent variable of the professionalism questionnaire the effect was not significant,  $mF(1,30) = .080, p < .780$ . For the effects of condition by physiological threat by masculinity level with self-esteem factor in as a covariate, the effect was also not significant,  $mF(1,29) = .077, p < .783$ .

### Discussion

While our results suggest that our threat manipulation was successful, as participants in the threat condition experienced physiological threat, our results did not support our other hypotheses. Even though PEP and CO changes were not significant, we would not necessarily expect them to be, because their change is supposed to be slight (Tomaka et al., 1993). The interaction effect that was found regarding the condition and physiological experience of threat shows that those participants who were in the threat condition and were physiologically threatened did rate the experimenter worse than those who experienced no threat at all. It is doubtful, however, that the differences in these scores is the significant part of the interaction. It is difficult to elucidate exactly what this interaction means. It suggests that perhaps level of masculinity is not an important factor, as the effect disappears if the participant's masculinity score is added as an independent

variable. Although the effect was not significant, it seems that when level of masculinity is added, the high masculinity participants rated the experimenter slightly more positively than the low masculinity participants when the condition actually elicited the proper response (threat or no threat). This runs counter to our hypotheses. Perhaps this was because the low masculinity men rated the “gay” experimenter badly because they wanted us to know that they themselves were not gay even though they had low masculinity levels.

Self-esteem did not have any effect on the rating of the experimenter on the professionalism questionnaire with any of the independent variables. The self-esteem results did not have a wide range of scores, and most of the scores were very high. This may have affected our results. A wider range of self-esteem scores would have been more optimal. However, the other half of this experiment, which dealt with attitudes, did find significant effects for level of self-esteem and responses on the attitude questionnaires. This part of the experiment also found effects for various independent variables and responses on the attitude questionnaires. It is unclear why the participants would express anti-gay attitudes but not anti-gay behavior on the professionalism questionnaire.

This suggests a possible flaw in our behavioral measure of homophobia. The professionalism questionnaire may not have been measuring what we intended it to measure. As we designed this measure ourselves, we are not sure that it actually measures homophobic behavior. A possible course of action would be to test our measure against a known measure. Fein and Spencer (1997) conducted a study similar to this one in which they gave the participants a scenario in which the person was revealed to be a minority. After reading the scenarios, the participants were asked to rate the

primary actor in the scenario. As they found significant results for derogating the minority after administering false negative feedback after a general intelligence test, perhaps it would be better if we tried this approach in the future. Aside from our measure being flawed, it may be that participants in this study felt safe in reporting their anti-gay attitudes, but not performing a homophobic behavior which would make our measure seem flawed.

Another possible explanation is that the threat the participant received was not great enough to provoke an anti-gay behavior, but was sufficient enough to trigger anti-gay attitude expression. This idea would not directly contradict the literature regarding self-affirmation. Steele (1993) suggests that people do not always get to affirm through the situation, sometimes because it is not seen as appropriate. This may have been the case with our experiment. If the threat was only mild, a discriminatory act may have been seen as over-compensating for the threat, instead of merely dispelling it, and the participant would have looked for a more acceptable way of affirming the self. The participant, not seeing the professionalism questionnaire as an appropriate way to affirm, may have already begun to look for an alternative route to affirming their sense of self. They may have started to rationalize the threat and look for an alternative self-concept to use to affirm. If this is so, then the attitude questionnaires were presented at the optimal time; the participant had passed the opportunity to affirm through discrimination, but was then presented with the opportunity to affirm through expression of homophobic attitudes. As attitudes are more passive than behaviors, the attitude questionnaires may have been seen as an appropriate way to affirm given the level of threat. Thus, at this point in the experiment, the expression of anti-gay attitudes was enough to dispell the

threat and affirm, while also being easily available to the participant. These ideas merit further investigation.

Other limitations of this study include a small number of participants for whom physiological data was collected successfully: 39 out of 49. In addition, only 10 people in the no threat condition actually did not feel physiologically threatened and only 13 people in the threat condition actually felt physiologically threatened. In the future, a control condition should be established which works better, that the general intelligence test with no feedback, in not producing threat. This problem, not having enough true threat and true no threat participants, severely reduced our numbers for the majority of our important analyses. Actual physiological threat was one of the premises of our main hypothesis. That hypothesis being that high masculinity men in the masculine threat condition who were physiologically threatened would rate the experimenter worse. Without high numbers in this manipulation, which we did not have, there is a risk of not seeing effects. In addition, none of our participants were very high on the masculinity questionnaire. The highest MRNS scores we had were around 5, while the questionnaire is on a 7 point scale. Therefore, there was not that large of a gap between those who were labeled high in masculinity and those who were labeled low in masculinity. Perhaps this is why any significant effects seemed to disappear when masculinity level was added into the statistics as an independent variable. In the future, more extremely masculine men should be recruited aggressively, so that there will be masculinity scores in the 6 and 7 range.

The self-esteem literature suggests a potentially important follow-up study. Baumeister and Tice (1985) suggests that failure is what really bothers individuals of high self-esteem. Repeated failure can be even worse because the HSE individual does

not want to acknowledge a failure which suggests they should have less favorable views of themselves. It is these people, who do not want to redefine themselves even after repeated failure, that may either aggress towards the source of the threat or even become violent. Since we only gave negative feedback one, in the threat condition, perhaps it was not enough to significantly bother the participant. In a future study, negative feedback should be manipulated multiple times. One threat condition could receive negative feedback multiple times, while the other threat condition could receive it only once followed by positive feedback. Other variations of this design could also be employed to more directly examine the role of self-esteem in homophobic behavior. Perhaps if self-esteem is threatened repeatedly, the HSE participant will be provoked into acting homophobic as a way to dispell the threat to their egos.

Although our hypotheses were not supported, the observed interaction of these variables is curious and merits further inquiry. The effects seem to run counter to the literature and need to be examined further. If this study were to be replicated it could possibly indicate something going on that the literature has not yet identified. An additional study which manipulated threat feedback more than once, as our study, should be conducted in order to better understand the relationship of self-esteem, masculinity, and homophobia.



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## Appendix 1

*Professionalism Questionnaire*

## RESEARCH EVALUATION

We need to know how well this research is being conducted in order to better improve our research methods. Please answer these questions as honestly and candidly as possible. The experimenter who conducted the research today will never see the ratings you are about to make.

A. In your opinion, how KNOWLEDGEABLE was the principal researcher who conducted your session today? (Circle a number.)

Not at all KNOWLEDGEABLE 0 1 2 3 4 5 6 7 8 9 10  
Very KNOWLEDGEABLE

B. In your opinion, how COMPETENT was the principal researcher who conducted your session today? (Circle a number.)

Not at all COMPETENT 0 1 2 3 4 5 6 7 8 9 10 Very COMPETENT

C. In your opinion, how PROFESSIONAL was the principal researcher who conducted your session today? (Circle a number.)

Not at all PROFESSIONAL 0 1 2 3 4 5 6 7 8 9 10  
Very PROFESSIONAL

D. In your opinion, how ORGANIZED was the principal researcher who conducted your session today? (Circle a number.)

Not at all ORGANIZED 0 1 2 3 4 5 6 7 8 9 10 Very ORGANIZED

Please rate the extent to which you agree or disagree with each of the following statements:

1. The principal experimenter is doing a good job in conducting this project. (Circle a number.)

Very Strongly Disagree 1 2 3 4 5 6 7 Very Strongly Agree

2. The principal experimenter needs to be better organized. (Circle a number.)

Very Strongly Disagree 1 2 3 4 5 6 7 Very Strongly Agree

3. The principal experimenter conveyed a sense of trust to me in this project. (Circle a number.)

Very Strongly Disagree 1 2 3 4 5 6 7 Very Strongly Agree

4. The principal experimenter should be replaced with another person. (Circle a number.)

Very Strongly Disagree 1 2 3 4 5 6 7 Very Strongly Agree

5. The principal experimenter made me feel comfortable as a research participant. (Circle a number.)

Very Strongly Disagree 1 2 3 4 5 6 7 Very Strongly Agree

6. I have my doubts about whether the results of this study are going to be valid. (Circle a number.)

Very Strongly Disagree 1 2 3 4 5 6 7 Very Strongly Agree

7. This seems like a pretty silly experiment to me. (Circle a number.)

Very Strongly Disagree 1 2 3 4 5 6 7 Very Strongly Agree

8. I would tell my friends that this is an interesting project to do for extra credit. (Circle a number.)

Very Strongly Disagree 1 2 3 4 5 6 7 Very Strongly Agree

9. This project seemed pretty worthless to me. (Circle a number.)

Very Strongly Disagree 1 2 3 4 5 6 7 Very Strongly Agree

10. I would be willing to participate in another project with this

experimenter in the future. (Circle a number.)

Very Strongly Disagree 1 2 3 4 5 6 7 Very Strongly Agree

11. Would you recommend this experimenter for a supervisory position? (Circle a number.)

Very Strongly Disagree 1 2 3 4 5 6 7 Very Strongly Agree

### Author Note

I conducted this research with the help of Frances Shen, and under the advisement of Dr. John Ernst of Illinois Wesleyan University. In addition, Dr. John Pryor and Dr. Glenn Reeder from Illinois State University also served in an advisory function.

I would like to thank Frances Shen for her help in running this project. I would also like to thank Dr. John Ernst for his continual guidance and patience, and Dr. Pryor and Dr. Reeder for their assistance.

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Table 1.

*Means and Standard Deviations for Change in Physiological Signals after Threat or No Threat.*

| Condition | TPR*  |        | PEP   |      | CO    |      |
|-----------|-------|--------|-------|------|-------|------|
|           | Mean  | SD     | Mean  | SD   | Mean  | SD   |
| Threat    | 57.73 | 111.75 | -7.68 | 12.7 | -.046 | .687 |
| No Threat | -3.47 | 109.76 | -1.57 | 5.7  | .195  | .827 |

\*Marginally Significant  $p<.097$

## Figure Caption

Figure 1. *Change in Physiology From Minute 4 of Rest Period to Minute 1 After Threat.*

Figure 2. *Non-significant effect of True Masculine Threat by True No Threat for Rating of the Experimenter.*

Figure 3. *Interaction between Physiological Threat by Actual Threat Condition for Rating the Experimenter.*

Figure 1.

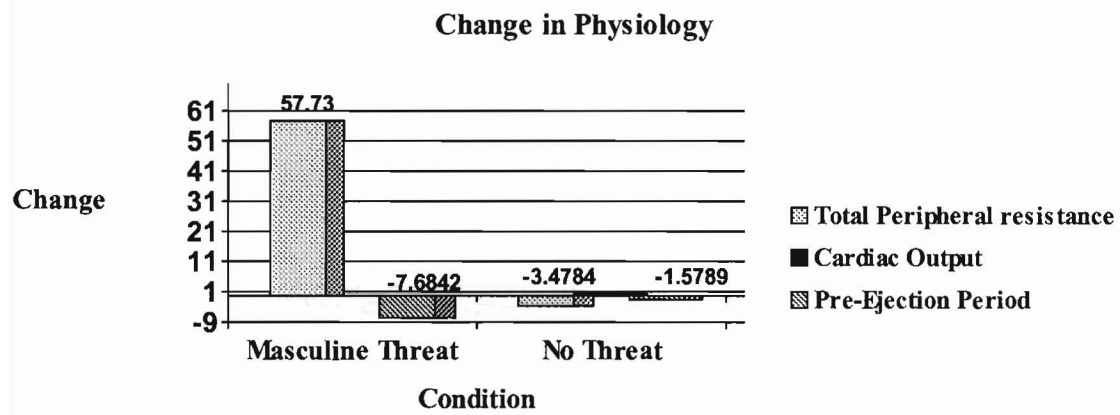


Figure 2.

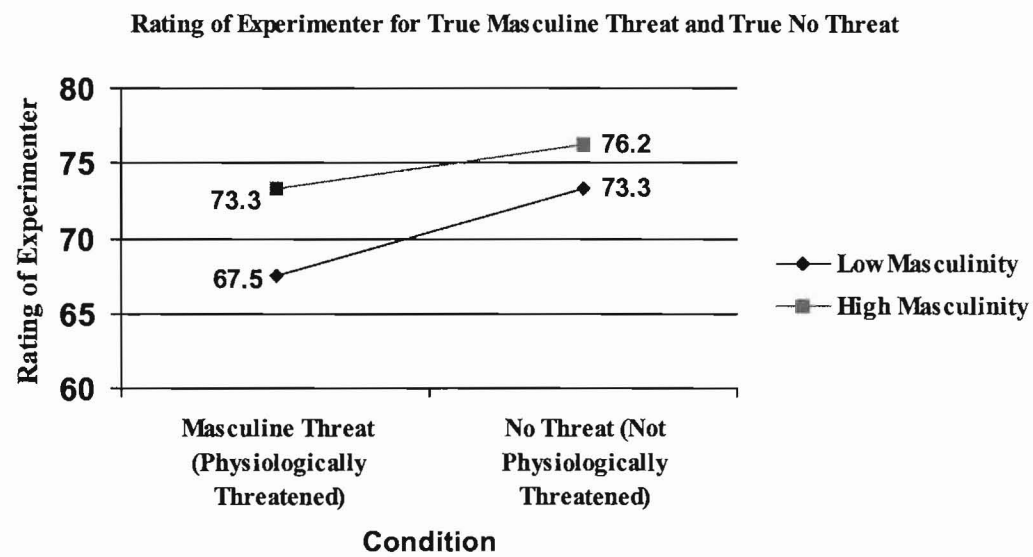
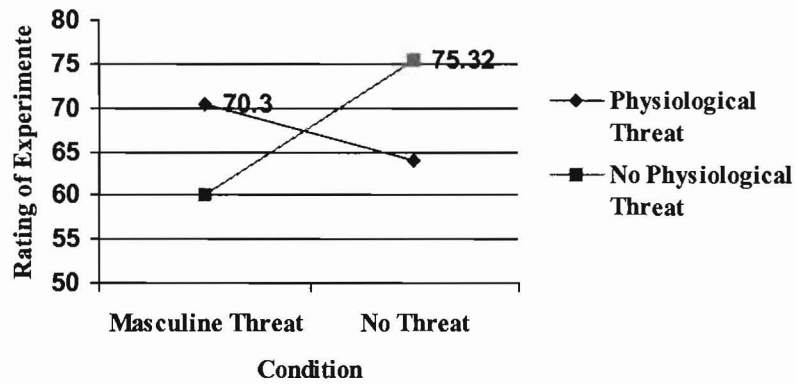


Figure 3.



\*Significant interaction,  $p < .002$