THE EFFECT OF INCIDENTAL THREAT ON LEADERSHIP NEEDS AND CHOICES

by Elizabeth R. Brown

The current study examines how the need for affiliation/nurturance influences gendered leadership decisions depending on incidental threat. The influence of threat on the need for nurturance is examined in reference to 1) role congruity theory, which states the male gender role is more consistent with the leadership role than the female gender role (Eagly & Karau, 2002); 2) research demonstrating incidental threat benefits female leaders (Brown & Diekman, 2008). Experiment 1 examined if threat increased nurturance/affiliative needs, causing relative benefits for female leaders. Experiment 2 manipulated the leader’s traits (agentic versus communal) to examine if communally-described leaders benefit under threat. The Experiment 1 subsample of participants who passed the manipulation check revealed increased affiliation in the threat relative to control condition. The results for Experiment 2 were not conclusive. Further research needs to examine why incidental threat benefits female leaders.
THE INFLUENCE OF INCIDENTAL THREAT ON LEADERSHIP NEEDS AND CHOICES

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Elizabeth Renee Brown

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Advisor_______________________
(Amanda Diekman)

Reader________________________
(Kurt Hugenberg)

Reader________________________
(Ann Fuehrer)
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Although research has examined both the desires of voters and situational influences on leadership decisions (e.g., Campbell, Converse, Miller, & Stokes, 1960; Huddy, Feldman, Taber, & Lahav, 2005; Huddy, Feldman, & Weber, 2007; Cohen et al., 2004; Bartol & Butterfield, 1976), little research has addressed how basic needs influence leadership decisions. Two needs that are likely to occur in response to threat are the need for nurturance and the need for protection. Reactions to threat cue behaviors that allow for the attainment of nurturance (e.g., Harlow, 1958) and cue behaviors that help the individual to identify and eliminate the threatening agent (e.g., Haynes & Olson, 2006). While both needs are important, the need for protection is commonly thought of as a response to threat, whereas less attention has been focused on the need for nurturance. In these studies, nurturance needs under threat are examined in relationship to leadership decisions.

If given the opportunity to choose a leader under threat, men and women might seek a leader who fulfills their nurturance needs. In this case, the leader’s gender role could facilitate or hinder a leader’s perceived ability to provide nurturance. The current studies examines how the need for nurturance, in response to a threat, is associated with male leaders being preferred less than female leaders, because female leaders are perceived to have the traits necessary to provide nurturance to others. Thus, it is important to examine the intersection of gender roles with the leadership role.

**Role Congruity Theory**

Role congruity theory (Eagly & Karau, 2002) posits that leadership roles are more congruent with the male gender role (associated with agentic traits: e.g., independent, competitive) than the female gender role (associated with communal traits: e.g., nurturing, kind). To the extent the female gender role and the leadership role are perceived as incongruent, women are less favorably evaluated as leaders (Eagly & Karau, 2002).

Consistent with role congruity theory, the inferred gender role traits of men and women might differentially influence participants’ leadership choices. More specifically, the gender role attributes of women (e.g., nurturing, kind) might provide female leaders with more perceived nurturance than male leaders. Therefore, it is highly possible if nurturance is desired, participants might be more likely to prefer a female as opposed to male leader. The current research
examines whether threat leads to increased nurturance needs, resulting in participants preferring female leaders relative to male leaders.

**Threat and Leadership**

Most research on threat has examined threats *directly linked with the leadership decision* (i.e., *integral threats*). For example, when participants were asked to choose a leader during a time of crisis such as September 11th, 2001, participants were more likely to prefer a masculinized as opposed to a feminized face (Little, Burris, Jones, & Roberts, 2007). However, the current research seeks to examine threats that are *not directly linked with the leadership decision* (i.e., *incidental threats*). For example, an incidental threat based on the Little et al. (2007) manipulation might involve telling participants to think about a crisis such as September 11th, 2001, and then telling participants to complete an unrelated leadership choice task, instead of directly linking the leadership task with a time of crisis.

Two preliminary experiments investigated the effects of incidental threat on gender-based leadership decisions. In the first experiment, participants wrote about threats to Miami University or about watching television (control condition). Next, participants rated how likely they would be to vote for a candidate running for Ohio House of Representatives, named either Brian or Karen Johnson. In the control condition, participants demonstrated the baseline tendency to prefer a male leader. However, in the threat condition, the baseline tendency to prefer a male leader reversed. This finding was further moderated by participant sex. Male participants were more likely to demonstrate the reversal of the baseline tendency to prefer a male leader (Brown & Diekman, 2008).

A second experiment replicated the effect with a different incidental threat manipulation and leadership position. Participants either watched a video clip from *The Silence of the Lambs* (Bozeman, Saxon, Utt, & Demme, 1991) or *Koyaanisqatsi* (Reggio & Coppola, 1983). Participants rated their support for one of two candidates (Brian or Karen Johnson) who were running for Director of Safety at Miami University. Results indicated participants in the control condition demonstrated the baseline tendency to prefer a male leader. However, participants in the threat condition again demonstrated a reversal of the baseline tendency to prefer a male leader. There were no participant sex effects in this experiment (Brown & Diekman, 2008).
These experiments found that incidental threat reverses the baseline tendency to prefer male leaders, which is consistent with the idea that female leaders gain benefits because of the communal traits women possess. Therefore, under incidental threat, participants might be more likely to perceive that female leaders, because of women’s gender role traits (e.g., nurturing, sensitive, caring), afford more opportunities to meet affiliative needs.

However, these experiments did not directly test nurturance/affiliation as the mechanism underlying relative benefits for female versus male leaders under incidental threat. Nurturance and affiliation are considered to be highly related constructs. Both require a person to possess communal traits that enable them to have the potential to associate with and care for others. For simplicity, in this research, nurturance and affiliation will be considered interchangeable constructs. The current research examines if affiliation/nurturance explain why incidental threat leads to increased preferences for female leaders.

**Proposed Research**

In Experiment 1, I expected incidental threat would lead to an increased need for nurturance/affiliation relative to the control condition. Consequently, this increased need for nurturance/affiliation would result in a greater relative preference for female as opposed to male leaders. In Experiment 2, I experimentally manipulated the leader’s traits in order to examine the influence of agentic versus communal traits on nurturance/affiliation need fulfillment. I expected that leaders with more communal traits would be more likely to be chosen under threat. Thus, both experiments explored nurturance/affiliation as the mechanism behind the relationship between threat and voting for a male or female leader.

**Experiment 1**

In Experiment 1, I hypothesized that under threat, participants would desire more nurturance/affiliation than control participants. Additionally, I hypothesized that the needs participants express would influence leadership choice, so that an increased need for nurturance/affiliation would lead to increased voting for a female leader. Experiment 1 also included a measurement of protection, which was included as a corollary of nurturance.
Method

Participants and Procedure

The sample consisted of 168 participants, 77 of whom were female. Participants were predominantly (86.9%) of European American descent and ranged in age from 18 to 54 years (median=19). Upon arrival to a laboratory, participants sat in a private cubicle, and materials were presented on a computer using Media Lab software.

Participants were randomly assigned to watch a threatening or control video clip. Afterwards, they completed a filler task in which they wrote their opinion of the movie. Next, participants completed the Positive and Negative Affect Scale (PANAS; Watson & Clark, 1994) and a filler task in which participants had 5 minutes to write as many of the 50 states as possible. After this task, participants completed two needs measures. One of the needs measures measured how much participants desired protection and nurturance from a leader, and the other was the Interpersonal Orientation Scale (IOS; Hill, 1987). The order of these measures was counterbalanced. Additionally, participants were presented with information about a political candidate, and they were asked to rate how likely they would be to vote for the candidate, the personality traits of the candidate, and the positivity of their impressions of the candidate. Finally, participants provided demographic information.

Experimental Manipulation

Threat. Participants watched one of two different video clips used in previous research to manipulate threat (e.g., Gross & Levenson, 1995; Maner et al., 2005). Participants in the threat condition watched a clip from The Silence of the Lambs (Bozeman, Saxon, Utt, & Demme, 1991), in which an FBI agent is stalked in a basement by a serial killer (7.42 minutes long). Participants in the control condition watched a clip from Koyaanisqatsi (Reggio & Coppola, 1983), in which people are shown through time-lapsed film in an urban setting (e.g., going down escalators, manufacturing products) set to orchestral music (6.58 minutes long).
In a pretest, the effectiveness of the threat manipulation was measured with a word completion task. Participants formed words from several letter-blank combinations (e.g., th_ _ _ t; c_ _ s _ s). The more threat words participants formed, the higher the accessibility of threat (e.g., Landau et al., 2004; Steele & Aronson, 1995). Participants in the threat condition completed significantly more threat words ($M=1.48, SD=1.31$) than participants in the control condition ($M=0.72, SD=0.94$), $F(1, 50) = 5.72, p=.02$.

**Leader sex.** Participants read about a candidate named either Brian or Karen Johnson who was running for the Ohio House of Representatives. These names were chosen because they have been rated as equivalent in competence and attractiveness (Kasof, 1993; used previously by Eagly, Diekman, Schneider, & Kulesa, 2003). The leader was described as endorsing the following political stances: Reduce taxes; Create new jobs for the state of Ohio; Make Ohio a better place to live for all of its citizens.

**Dependent Variables**

**PANAS.** The PANAS (Watson & Clark, 1994) measures affect on different dimensions, including positive and negative affect. Participants rated their affective state on scales ranging from 1 (very slightly or not at all) to 5 (extremely). Ratings of 10 different negative emotions (e.g., afraid, scared, nervous) were averaged together to create a negative affect index ($\alpha=.88$).

**Need for nurturance and protection.** The nurturance/protection measure was developed for this study by selecting synonyms of the words nurturance and protection and using these words in parallel sentences to create eight different statements. Participants rated these qualities on scales ranging from 1 (not so important) to 7 (very important). Items assessing the need for nurturance in a leader included: Assumes responsibility for calming the nation; Assures the nation in times of crisis; Takes action to comfort the citizens; Does his/her best to nurture the citizens of the country ($\alpha=.80$). Items assessing the need for protection in a leader included: Assumes responsibility for guarding the nation; Defends the nation in times of crisis; Takes action to protect the citizens; Does his/her best to protect the citizens of the country ($\alpha=.87$). Neutral statements (i.e., Is a wonderful speaker; Is a good citizen) were mixed with these statements to disguise the purpose of the nurturance/protection measure.
Need for affiliation. Additionally, participants completed the Interpersonal Orientation Scale (IOS; Hill, 1987). Twenty-six statements were averaged together to create a composite affiliation measure ($\alpha=.91$). The following are examples of the statements: “If I feel unhappy or kind of depressed, I usually try to be around other people to make me feel better;” “I think being close to others, listening to them, and relating to them on a one to-one level is one of my favorite and most satisfying pastimes.” Participants rated these statements on 5 point scales ranging 1 (not at all) to 5 (completely true).

Leader support. Participants rated two items (how likely they would be to vote for the candidate, and how likely they would be to support the candidate) on scales from 1 (definitely not support/vote for) to 7 (definitely support/vote for; Eagly, Diekman, Schneider, & Kulesa, 2003). Ratings on these two items were averaged together to form a voting index ($\alpha=.94$).

Additionally, participants rated three items (how much they like the candidate, how much the candidate represents them, and how positive the candidate’s impact will be) on scales from 1 (do not like/does not represent/will not have a positive impact) to 7 (like a lot/does represent/will have a positive impact). These items were averaged together to form a positive impression index ($\alpha=.88$).

Personality traits. Participants rated the leader on four agentic traits (i.e., aggressive, dominant, daring, and tough) and four communal traits (i.e., sympathetic, sensitive, gentle, and compassionate) on scales ranging from 1 (very unlikely) to 7 (very likely; Diekman & Eagly, 2000; Eagly, Diekman, Schneider, & Kulesa, 2003). In order to form agency and communion indexes, all of the agentic trait ratings were averaged together ($\alpha=.81$) and all of the communal trait ratings were averaged together ($\alpha=.84$).

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1 The IOS consisted of 4 factors: social comparison, emotional support, positive stimulation, and attention. Individual items within each subscale were averaged together to form each factor. Social comparison consisted of five statements ($\alpha=.81$). Positive stimulation consisted of nine statements ($\alpha=.86$). Attention consisted of six statements ($\alpha=.86$). Emotional support consisted of six statements ($\alpha=.84$). In the following experiment, there was an error in programming the emotional support subscale. A particular statement was answered twice and another statement in this subscale was excluded. In order to correct for the error, the mean of the two answers was taken and incorporated into the subscale. In Experiment 2 the problem was fixed and the missing statement was included. These subscales were analyzed in the same manner as the composite affiliation measure. However, none of the analyses added to the information provided by the composite affiliation measure and thus will not be mentioned in the results section.
Results

First, the sample of participants was analyzed in its entirety, but this analysis yielded null results on the critical measures. Then I eliminated participants based on the manipulation check. The subsample of participants was analyzed in order to examine the hypothesized effects. For both samples of participants, all effects that are relevant to threat, nurturance, affiliation, communion, or agency are reported in the text. Other effects that are less central to threat, nurturance, affiliation, communion, or agency are footnoted.

Full Sample Analyses

Manipulation Check

Negative affect scores were submitted to a 2 (threat) × 2 (participant sex) between-subjects ANOVA. Participants were more likely to experience negative affect in the threat $(M=2.17, SD=0.80)$ as opposed to the control condition $(M=1.51, SD=0.51)$, $F(1, 164)=42.27$, $p<.001$. ²

Leader Support

Voting. A 2 (threat: threat/control) × 2 (leader sex) × 2 (participant sex) between-subjects ANOVA revealed no significant or marginal main effects or interactions for the voting measure.

Positive impression. A 2 (threat: threat/control) × 2 (leader sex) × 2 (participant sex) between-subjects ANOVA found no significant or marginal main effects or interactions for the positive impression measure.

² Female participants experienced more negative affect $(M=2.18, SD=0.84)$ than male participants $(M=1.61, SD=0.57)$, $F(1, 164)=23.51$, $p<.001$. These main effects were qualified by a significant Threat × Participant Sex interaction, $F(1,164)=7.97$, $p=.005$. Female participants experienced more negative affect in the threat $(M=2.54, SD=0.78)$ as opposed to control condition $(M=1.63, SD=0.60)$, $p<.001$. This effect was smaller for male participants who experienced more negative affect in the threat $(M=1.79, SD=0.64)$ as opposed to control condition $(M=1.43, SD=0.43)$, $p=.002$. ²
Needs Measures

Reliability between nurturance and affiliation. In order to examine the convergent and discriminant validity of the nurturance/protection needs measures, analyses examined if the nurturance/protection needs measures were correlated with the IOS. There was a positive correlation between the need for affiliation and the need for nurturance in a leader, \( r(166) = 0.19, p = .01 \). Additionally, there was a positive correlation between the need for affiliation and the need for protection in a leader, \( r(166) = 0.18, p = .02 \). Using the same guidelines as presented by Hill (1987), these effect sizes indicate a slight relationship between affiliation and nurturance needs and affiliation and protective needs. While these correlations are not strong, these relationships might indicate a tendency for increased affiliation leading to seeking both nurturance and protection from others. Both of these results are consistent with an evolutionary argument that affiliation with a group might help to provide group members with protection and nurturance, which helps group members survive.

Affiliation. A 2 (threat: threat/control) × 2 (participant sex) between-subjects ANOVA revealed none of the predicted effects.\(^3\)

Need for nurturance and protection. A 2 (threat: threat/control) × 2 (needs: nurturance/protection) × 2 (participant sex) mixed ANOVA with needs as the repeated measures factor revealed participants reported a greater need for protection (\( M = 6.43, SD = 0.73 \)) than nurturance (\( M = 5.89, SD = 0.94 \)), \( F(1, 168) = 87.59, p < .001 \).

Traits of the Leader

Agentic and communal trait ratings were submitted to a 2 (leader sex) × 2 (participant sex) × 2 (traits: communal/agentic) mixed ANOVA with traits as the repeated measures factor. Participants perceived the leaders to be more communal (\( M = 4.77, SD = 1.00 \)) than agentic (\( M = 4.24, SD = 1.01 \)), \( F(1, 168) = 19.61, p < .001 \).\(^4\) Contrary to expectations, no differences in

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\(^3\) Female participants had a marginally higher need for affiliation (\( M = 3.14, SD = 0.55 \)) than male participants (\( M = 2.97, SD = 0.70 \)), \( F(1, 164) = 2.68, p = .10 \).

\(^4\) Female participants rated the leader as higher in both communal and agentic traits (\( M = 4.63, SD = 0.65 \)) than male participants (\( M = 4.41, SD = 0.61 \)), \( F(1, 121) = 3.31, p = .06 \).
communion were found for the male and female leader, \( p = .23 \). There was also no difference between the male and female leader in participants’ perceptions of agency, \( p = .84 \).

**Conclusion**

Because the predicted Threat × Leader Sex interactions for the voting and positive impression measures did not emerge and the predicted main effect of threat for the affiliation and nurturance needs measure did not emerge, I was unable to examine nurturance or affiliation as the mediator of the relationship between threat and voting for a male or female leader. However, because this experiment sought to examine the mechanisms behind the effect of threat on gendered leadership decisions, I eliminated participants who did not appear to be affected by the threat manipulation.

**Subsample Analyses**

All participants who scored below 2.0 on negative affect and were in the threat condition were eliminated from the analyses in order to see if the predicted effects emerged for the remaining participants. Participants exposed to the threat condition were expected to have elevated negative affect (i.e., to score at or above 2.0 on the negative affect scale). Thus, 43 participants were excluded from the full sample to form the subsample.

*Demographics.* One hundred twenty-five introductory psychology students were retained in the subsample. Sixty-four of these participants were female. Participants were predominantly of European American descent (88.8%), and ranged in age from 18-54 years (median=19).

*Manipulation check*

Participant’s negative affect scores were submitted to a 2 (threat: threat/control) \( \times \) 2 (participant sex) between-subjects ANOVA. Participants in the threat condition experienced
more negative affect ($M=2.80, SD=0.54$) than participants in the control condition ($M=1.51, SD=0.51$), $F(1, 121)=146.41, p<.001$.

**Leader Support**

Voting. A 2 (threat: threat/control) × 2 (leader sex) × 2 (participant sex) between-subjects ANOVA revealed a marginal Threat × Leader Sex × Participant Sex interaction, $F(1, 114)=3.16, p=.08$. Partially replicating Brown and Diekman (2008), there was a marginal Threat × Leader Sex interaction for male participants, $F(1, 57)=2.85, p=.10$. Male participants were less likely to support a male leader in the threat versus control condition, $p=.09$, but there were no differences in support for the female leader in the threat and control condition, $p=.42$. There was no Threat × Leader Sex interaction for female participants, $p=.53$ (see Figure 1). There also were no simple effects of threat or leader sex for female participants, $ps>.28$.

Positive impression of the leader. Although the effects for positive impression of the candidate were expected to parallel those found for voting, a 2 (threat: threat/control) × 2 (leader sex) × 2 (participant sex) between-subjects ANOVA revealed no significant interactions or main effects.

**Needs Measures**

Need for nurturance and protection in a leader. Participants’ need for nurturance and protection in a leader were submitted to a 2 (threat: threat/control) × 2 (need: nurturing/protective) × 2 (participant sex) mixed ANOVA with need as the repeated measures factor. Participants reported more of a need for protection than nurturance in a leader, $F(1, 121)=57.43, p<.001$ (see Figure 2).

In an exploratory analysis, nurturance and protection needs were submitted to 2 (threat: threat/control) × 2 (participant sex) between-subjects ANOVAs. For the need for protection and the need for nurturance, there were no significant main effects or interactions.

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5 Female participants marginally expressed more negative affect ($M=2.29, SD=0.87$) than male participants ($M=1.71, SD=0.64$), $F(1, 121)=7.43, p=.007$. 5
**Need for affiliation.** To examine participants’ affiliative needs on the IOS, the affiliation index was submitted to a 2 (threat) × 2 (participant sex) between-subjects ANOVA. Participants were more likely to express a need for affiliation in the threat (M=3.28, SD=0.63) as opposed to the control condition (M=3.02, SD=0.59), F(1, 121)=3.95, p=.05.6

**Affiliation as a Mediator**

Following Baron and Kenny’s (1986) recommended procedures for mediational analysis, I examined the hypothesis that participants’ need for affiliation would influence leadership decisions such that participants who expressed a higher need for affiliation would be less likely to vote for a male leader. Because the Threat × Leader Sex interaction for the voting measure was marginally significant only for male participants rating a male leader, I examined affiliation as a mediator only for this group.

Threat marginally negatively predicted voting, B=-0.91, β=-0.32, p=.09. However, threat did not predict affiliation, B=0.13, β=0.10, p=.59, and affiliation did not predict voting, B=0.68, β=0.30, p=.12. When both threat and affiliation were used as predictors of voting, threat significantly, B=-1.01, β=-0.35, p=.05, and affiliation marginally, B=0.76, β=0.33, p=.07, predicted voting. Because none of the critical paths were significant, it can be concluded that I failed to find evidence for affiliation as the mediator of the relationship between threat and voting for a male leader.

**Traits of the Leader**

To examine whether participants viewed the male leader as more agentic and the female leader as more communal, agentic and communal trait ratings were submitted to a 2 (leader sex) × 2 (participant sex) × 2 (traits: communal/agentic) mixed ANOVA with traits as the repeated

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6 Analyses examined if the nurturance/protection needs measures were correlated with the IOS. There was a marginal positive correlation between the need for affiliation and the need for nurturance in a leader, r(123) =0.16, p=.08. Additionally, the need for affiliation was not correlated with the need for protection in a leader, r(153)=0.14, p=.13. According to Hill (1987), these effect sizes indicate a slight relationship between the nurturance and affiliation measure, meaning that when people seek affiliation from groups they also might obtain increased nurturance.
measures factor. Participants perceived both the male and female leader to be more communal ($M=4.79, SD=0.97$) than agentic ($M=4.26, SD=1.03$), $F(1,121) = 13.61, p < .001$. Contrary to expectations, no differences in communion were found for the male and female leader, $p = .23$. There was also no difference in perceptions of agency between the male and female leader, $p = .84$.

Conclusion

The subsample of participants from Experiment 1 allowed for a partial replication of previous work (Brown & Diekman, 2008). For male participants, threat leads to detriments for male leaders. Findings from the subsample also support previous research showing that threat increases the need for affiliation (e.g., Brewer & Caporael, 2006; Hirschberger, Florian, & Mikulincer 2002; Schachter, 1959; Shaver & Mikulincer, 2007; Taubman-Ben-Ari, Findler, & Mikulincer, 2002). Participants were more likely to express an increased desire to affiliate with others when they felt threatened. However, the study did not sufficiently provide evidence for the original hypothesis that participants under threat would especially prefer female leaders because female leaders stereotypically provide more opportunities to meet affiliative needs. Furthermore, the findings from Experiment 1 failed to replicate across the full and partial samples. Thus, firm conclusions cannot be made based on these findings alone.

Discussion

Experiment 1 failed to find evidence for affiliation as the mediator of the relationship between threat and voting for a male candidate. Therefore, Experiment 2 adopted an experimental approach to examine the relationship between affiliation/nurturance and voting decisions. In Experiment 2, a leader’s communion or agency was manipulated. I expected that under threat, participants would be more likely to vote for leaders who possess communal traits, because communal traits would be perceived as fulfilling the need for affiliation.

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7 Female participants rated the leaders as higher in both communal and agentic traits ($M=4.63, SD=0.65$) than male participants ($M=4.41, SD=0.61$), $F(1,121)=3.31, p = .06$. 
Experiment 2

The purpose of Experiment 2 was to examine the relationship between the leader’s traits and voting preferences. The guiding hypothesis for Experiment 2 was that participants who have affiliative needs would be more likely to choose a communal leader.

Within the impression formation literature, Fiske and Neuberg (1990) argue that both the target’s group (i.e., gender or race) as well as the target’s characteristics (i.e., political stance, personality, behavior, etc.) influence impressions of the target (see also Fiske, Lin, & Neuberg, 1999). Therefore, the leader’s sex as well as the leader’s agentic or communal traits would influence the participants’ voting preferences. Based on the evidence, I expected in the control condition, the candidate with the greatest amount of congruity with the leadership role (i.e., agentically-described male leader) would be preferred. However, in the threat condition, the candidate with the greatest amount of congruity with the female gender role (i.e., communally-described female leader) would be preferred. In general, I hypothesized that participants would prefer the candidate whose characteristics offer the greatest amount of congruity with the role (i.e., control condition: the leadership role; threat condition: female gender role).

To explore these different hypotheses, I investigated these relationships through the use of a 2 (threat: threat/control) × 2 (candidate traits: communal/agentic) × 2 (leader sex) × 2 (participant sex) between-subjects design.

Method

Participants and Procedure

One hundred ninety-nine psychology students (102 women and 97 men) participated in this experiment for partial course credit. Participants were predominantly of European American descent (84.42%), ranging in age from 18-35 (median age=19). Participants arrived at a social psychology laboratory in groups of 1-5 and sat in a private cubicle with a computer programmed to run the experiment using Media Lab software. The procedure for Experiment 2 was the same used in Experiment 1, with the addition of information about the candidate’s communion/agency.
Materials

The threat manipulation was the same used in Experiment 1. Additionally, the measures were the same used in Experiment 1: the PANAS (Watson & Clark, 1994; $\alpha_{\text{negative affect}}=0.88$), needs for nurturance/protection ($\alpha_{\text{nurturing}}=0.78$; $\alpha_{\text{protection}}=0.80$), IOS (Hill, 1987; $\alpha_{\text{affiliation}}=0.91$), voting ($\alpha=0.89$), positive impression of the candidate ($\alpha=0.81$), and leader’s personality traits ($\alpha_{\text{communal}}=0.91$; $\alpha_{\text{agentic}}=0.92$).

Political statement. Participants read about three different traits (either communal or agentic) possessed by a political leader named Brian or Karen Johnson who was running for the Ohio House of Representatives and one political statement. These trait statements and endorsements were developed in reference to the needs measure used in Experiment 1, with the communal political statements/endorsements reflecting nurturing qualities and the agentic political statements/endorsements reflecting protective qualities. In addition, the leader with the communal political traits had the following endorsements: “I have known Karen since childhood and I have found that she is a very affectionate person. Karen is a very kind woman. She is an extremely nurturing individual, and would be a great leader.” These endorsements were preceded by the following political statement: “I will strive to care for the state of Ohio and its residents.” The leader with the agentic political traits had the following endorsements: “I have known Karen since childhood and I have found that she is a very courageous person. Karen is a very competitive woman. She is great at standing up under pressure, and would be a great leader.” These endorsements were followed by the following political statement: “I will strive to protect the state of Ohio and its residents.” For the male leader versions, the name of the leader was Brian and masculine pronouns were used.

These positions were pre-tested with 45 participants who rated the statements on their communion and agency (i.e., communion: sympathetic, sensitive, gentle, compassionate, warm, and kind; agency: aggressive, dominant, daring, competitive, and tough) on scales from 1 (very unlikely) to 7 (very likely). A 2 (candidate traits: communal/agentic) × 2 (trait ratings: communal/agentic) mixed ANOVA with trait ratings as the repeated measures factor revealed higher trait ratings for the agentic than the communal candidate, $p=.05$. However, the main effect should be interpreted with attention to the significant Candidate Traits × Trait Ratings interaction, $p<.001$. The candidate with communal traits was rated as possessing more
communion than agency, p<.001. The candidate with agentic traits was rated as possessing more agency than communion, p<.001 (see Figure 3).

Results

First, the sample of participants was analyzed in its entirety, but the analysis yielded unpredicted results on the critical measures. Then I eliminated participants based on the manipulation check. Next, the subsample of participants was analyzed in order to examine the hypothesized mechanism. For both samples of participants, all effects relevant to threat, nurturance, affiliation, communion, or agency are reported in the text. Other effects that are less central to threat, nurturance, affiliation, communion, or agency are footnoted.

**Full Sample Analyses**

**Manipulation Checks**

*Negative affect.* A 2 (threat: threat/control) × 2 (participant sex) ANOVA revealed that participants in the threat condition experienced more negative affect (M=2.11, SD=0.83) than participants in the control condition (M=1.61, SD=0.62), F(1,197)=22.88, p<.001.8

*Leader traits.* The leaders’ communal and agentic traits were submitted to a 2 (leader sex) × 2 (leader traits: communal/agentic) × 2 (participant sex) × 2 (rated traits: communal/agentic) mixed ANOVA with rated traits as the repeated measure. Analyses revealed a significant Rated Traits × Leader Traits interaction. Participants rated the agentically-described leader (M=5.46, SD=1.04) higher on agentic traits than the communally-described leader (M=3.13, SD=1.15), F(1, 191)=232.52, p<.001. Additionally, participants rated the

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8 There was a significant Threat × Participant Sex interaction, F(1,195)=4.50, p=.04. Female participants experienced more negative affect in the threat (M=2.25, SD=0.87) as opposed to control condition (M=1.53, SD=0.64), F(1, 100)=21.92, p<.001. This effect was smaller for male participants who marginally experienced more negative affect in the threat (M=1.96, SD=0.78) as opposed to control condition (M=1.69, SD=0.61), F(1,95)=3.72, p=.06.
emotionally-described leader \((M=5.89, SD=0.98)\) higher on communal traits than the agentically-described leader \((M=3.85, SD=1.11)\), \(F(1, 191)=185.57, p<.001\).\(^9\)

**Leader Support**

*Voting.* A 2 (threat: threat/control) \(\times\) 2 (leader traits: communal/agentic) \(\times\) 2 (leader sex) \(\times\) 2 (participant sex) between-subjects ANOVA revealed none of the predicted interactions. Instead, participants were more likely to support a male \((M=4.08, SD=1.33)\) than a female leader \((M=3.72, SD=1.37)\), \(F(1, 183)=4.76, p=.03\). Additionally, participants were marginally more likely to support an agentically-described \((M=4.05, SD=1.38)\) than a communally-described leader \((M=3.75, SD=1.32)\), \(F(1,183)=3.04, p=.08\).\(^10\)

*Positive impression of the candidate.* A 2 (threat: threat/control) \(\times\) 2 (leader traits: communal/agentic) \(\times\) 2 (leader sex) \(\times\) 2 (participant sex) between-subjects ANOVA revealed a significant Threat \(\times\) Leader Sex \(\times\) Participant Sex \(\times\) Leader Traits interaction, \(F(1, 183)=7.93, p=.005\). Because I hypothesized that both the leader’s sex as well as the description of the leader would influence the leadership choice, the data were decomposed by threat condition in order to explore my hypotheses. In the threat condition, there was no significant Leader Traits \(\times\) Leader Sex \(\times\) Participant Sex interaction, \(F(1, 95)=2.08, p=.15\). However, in the control condition, there was a significant Leader Traits \(\times\) Leader Sex \(\times\) Participant Sex interaction, \(F(1,88)=6.33, p=.01\). For male participants in the control condition, there was not a significant Leader Sex \(\times\) Leader Traits interaction, \(F(1,45)=0.87, p=.36\). For female participants in the control condition, there was a significant Leader Sex \(\times\) Leader Traits interaction, \(F(1,43)=7.81, p=.008\). Examining the interaction by leadership description revealed that female participants had a more positive

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\(^9\) Participants were more likely to rate the leaders higher on communal traits \((M=4.86, SD=1.46)\) than agentic traits \((M=4.30, SD=1.60)\), \(F(1, 191)=21.56, p<.001\). This main effect was qualified by a significant Rated Traits \(\times\) Leader Sex interaction, \(F(1, 191)=19.26, p<.001\). Participants were significantly more likely to rate the female leader higher on communal traits \((M=5.11, SD=1.35)\) than agentic traits \((M=4.04, SD=1.57)\), \(F(1, 95)=48.98, p<.001\). However, there were no trait rating differences for participants who rated the male leader, \(F(1, 96)=0.03, p=.87\).

\(^10\) Female participants \((M=4.08, SD=1.35)\) were more likely support the candidate than male participants \((M=3.71, SD=1.34)\), \(F(1, 183)=6.30, p=.01\).
impression of a female than a male agentically-described leader, $F(1,21)=6.16, p=.02$. There was no effect of leader sex for female participants who rated the communally-described leader, $F(1,22)=2.13, p=.16$ (see Figure 4).

Strong conclusions cannot be made from these results because these findings not only differed from the original hypotheses but also only emerged on one of the main dependent variables. There appears to be a tendency for female participants to prefer an agentically-described female as opposed to an agentically-described male leader in the control condition.

**Needs Measures**

*Need for nurturance and protection in a leader.* A 2 (threat: threat/control) × 2 (participant sex) × 2 (needs: nurturing/protective) mixed ANOVA with needs as the repeated measure revealed that participants reported more of a need for protection than nurturance, $F(1,195)=109.84, p<.001$. Additionally, there was a marginal Needs × Threat × Participant Sex interaction, $F(1,195)=2.99, p=.09$. For nurturance needs, there was a significant Threat × Participant Sex interaction, $F(1, 195)=4.75, p=.03$. Consistent with hypotheses, male participants had more nurturance needs in the threat than the control condition, $F(1,95)=5.13, p=.03$; however, female participants’ nurturance needs did not differ by threat condition, $F(1, 100)=0.66, p=.42$. For protection needs, there were no simple effects or interactions (see Figure 5).

*Need for affiliation.* A 2 (threat: threat/control) × 2 (participant sex) ANOVA for the affiliation measure revealed no significant main effects or interactions.

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11 There was a marginal Threat × Participant Sex interaction, $F(1, 195)=3.63, p=.06$. Male participants had more needs in the threat than the control condition, $F(1,95)=3.89, p=.05$. Female participants’ needs did not differ by threat condition, $F(1, 100)=0.55, p=.46$.

12 In order to examine the convergent and discriminant validity of the nurturance/protection measures, analyses were conducted to examine whether the nurturance/protection needs measure was correlated with the IOS. Using the guidelines for effect sizes for the IOS set forth by Hill (1987), there was no correlation between affiliation needs and the need for nurturance in a leader, $r(197)=0.007, p=.92$. Additionally, there was no correlation between affiliation needs and the need for protection in a leader, $r(197)=0.10, p=.14$. 

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Conclusions

Findings from the full sample of participants failed to support the hypothesis that in the control condition, participants would be more likely to support the leader who is more consistent with the leadership role (i.e., the agentically-described male). Instead, findings demonstrate that in the control condition, female participants were more likely to prefer an agentically-described female as opposed to male leader. However, the finding was not predicted and was only significant on one of the critical measures. Furthermore, finding did not support the hypothesis that in the threat condition, participants would be more likely to support the leader that was more consistent with the female gender role (i.e., the communally-described female). Therefore, in order to explore the original hypotheses, a subsample of participants was selected. The same selection criteria used in Experiment 1 was used for the subsample analyses in Experiment 2 in order to examine if the predicted hypotheses emerged on the critical measures.

Subsample Analyses

All participants who scored below 2.0 on negative affect and were in the threat condition were eliminated from the analyses in order to examine if participants who passed the manipulation check showed the predicted effects. Therefore, 57 participants were excluded from the full sample to form the subsample.

Demographics. One hundred forty-two introductory psychology students were retained in the subsample. Seventy-five of these participants were female. Participants were predominantly (88.03%) of European American descent, and ranged in age from 18-54 years (median=19).

Manipulation Check

Negative affect. A 2 (threat) × 2 (participant sex) ANOVA revealed that participants in the threat condition experienced more negative affect ($M=2.90, SD=0.56$) than participants in the control condition ($M=1.61, SD=0.62$), $F(1,138)=134.85, p<.001$. 
**Leader traits.** In order to ensure the leaders’ traits were being perceived as either agentic or communal, data were submitted to a 2 (leader sex) × 2 (leader traits: communal/agentic) × 2 (participant sex) × 2 (rated traits: communal/agentic) mixed ANOVA, with rated traits as the repeated measure factor. Findings revealed a significant Rated Traits × Leader Traits interaction $F(1, 134)=260.88, p<.001$. Participants were more likely to rate the agentically-described leader ($M=5.38, SD=1.08$) higher on agentic traits than the communally-described leader ($M=2.97, SD=1.12$), $F(1, 134)=177.47, p<.001$. Additionally, participants were more likely to rate the communally-described leader ($M=6.01, SD=0.92$) higher on communal traits than the agentically-described leader ($M=3.83, SD=1.14$), $F(1,134)=165.50, p<.001$.

**Leader Support**

**Voting.** A 2 (threat: threat/control) × 2 (leader traits: communal/agentic) × 2 (leader sex) × 2 (participant sex) between-subjects ANOVA revealed a significant Threat × Leader Sex × Participant Sex × Leader Traits interaction, $F(1, 183)=7.93, p=.005$. I expected these findings would support my original hypotheses about the congruency between the role and trait information varying depending on threat condition. I first decomposed the results by threat condition. In the subsample analysis, there was no significant Leader Traits × Leader Sex × Participant Sex interaction for the control condition, $F(1, 88)=1.65, p=.20$, which differed from the positive impression measure findings in the full sample. Additionally, differing from the full sample analysis, a marginal Leader Traits × Leader Sex × Participant Sex interaction, $F(1,38)=2.94, p=.09$.

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13 Participants were more likely to rate the leaders higher on communal traits ($M=4.93, SD=1.50$) than agentic traits ($M=4.16, SD=1.63$), $F(1, 134)=25.94, p<.001$, which was qualified by a significant Rated Traits × Leader Sex interaction, $F(1, 134)=13.43, p<.001$. Participants were more likely to rate a female leader higher on communal traits ($M=5.13, SD=1.38$) than agentic traits ($M=3.93, SD=1.59$), $F(1,68)=48.41, p<.001$. However, there were no trait rating differences for the male leader, $F(1,66)=0.84, p=.36$. There was also a marginal Rated Traits × Leader Sex × Participant Sex interaction, $F(1, 134)=3.43, p=.07$. For female participants, there was a significant Rated Traits × Leader Sex interaction, $F(1, 71)=16.25, p<.001$. Female participants were more likely to rate female leaders higher on communal traits ($M=5.32, SD=1.38$) than agentic traits ($M=3.96, SD=1.60$), $F(1, 39)=34.76, p<.001$. On the other hand, there were no trait rating differences for male leaders, $F(1, 32)=0.66, p=.42$. Additionally, for male participants there was no Rated Traits × Leader Sex interaction, $F(1, 63)=1.54, p=.22$. 

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emerged for the threat condition. For female participants in the threat condition, there was no Leader Sex × Leader Traits interaction, $F(1, 24) = 0.01, p = .91$. For male participants in the threat condition, there was a significant Leader Sex × Leader Traits interaction, $F(1, 14) = 6.14, p = .03$. Male participants who rated the communal leader were more likely to vote for a male as opposed to a female leader, $F(1, 8) = 9.92, p = .01$. On the other hand, there were no leader sex differences for male participants who rated the agentic leader, $F(1, 6) = 0.11, p = .75$ (see Figure 6).

Since these findings differed from both the hypotheses and the full sample findings, it is hard to draw firm conclusions. These findings indicate that under threat, male participants were more likely to desire a communally-described male leader as opposed to a communally-described female leader. However, these unpredicted findings need to be replicated.

Positive impression of the candidate. A 2 (threat: threat/control) × 2 (leader traits: communal/agentic) × 2 (leader sex) × 2 (participant sex) between-subjects ANOVA revealed a significant Threat × Leader Sex × Participant Sex × Leader Traits interaction, $F(1, 126) = 10.56, p = .002$. Contrary to the findings from the voting measure, but consistent with the full sample analyses, there was a significant Leader Traits × Leader Sex × Participant Sex interaction, $F(1, 88) = 6.33, p = .01$, for participants in the control condition. Consistent with the positive impression findings from the full sample, there was no Leader Sex × Leader Traits interaction, $F(1, 45) = 0.87, p = .36$, for male participants in the control condition. Consistent with the full sample positive impression findings from Experiment 2, there was a significant Leader Sex × Leader Traits interaction for female participants in the control condition, $F(1, 43) = 7.81, p = .008$. Female participants were significantly more likely to have a positive impression of a female as opposed to a male agentially-described leader, $F(1, 21) = 6.16, p = .02$. However, for female participants who rated the communally-described leader, there was no effect of leader sex, $F(1, 22) = 2.13, p = .16$.

However, differing from the findings from the full sample positive impression measure, but consistent with the findings from the subsample voting measure, there was a significant Leader Traits × Leader Sex × Participant Sex interaction, $F(1, 38) = 5.37, p = .03$, in the threat condition. Consistent with the voting subsample findings, there was
no Leader Sex × Leader Traits interaction, $F(1, 24)=0.28, p=.60$, for female participants in the threat condition. For male participants in the threat condition, there was a significant Leader Sex × Leader Traits interaction, $F(1, 14)=4.57, p=.05$. Male participants who rated the communally-described leader were marginally more likely to vote for a male as opposed to a female leader, $F(1, 8)=4.13, p=.08$. However, for male participants who rated the agentically-described leader, there were no leader sex differences, $F(1, 6)=1.09, p=.34$ (see Figure 7).

Although these findings replicate some of the findings from either the full sample positive impression measure or the subsample voting measure, none of the findings replicated across all of the measures. Additionally, none of the findings supported my original hypotheses. Therefore, the following findings need to be replicated before strong conclusions can be drawn: female participants in the control condition are more likely to have a positive impression of a female as opposed to a male agentically-described leader; and male participants in the threat condition are more likely to have a positive impression of a male as opposed to a female communally-described leader.

**Needs Measures**

*Need for nurturance and protection in a leader.* A 2 (threat: threat/control) × 2 (participant sex) × 2 (needs: nurturing/protective) mixed ANOVA with needs as the repeated measure revealed that participants had more of a need for protection than nurturance, $F(1,138)=60.37, p<.001$. Additionally, there was a marginal Needs × Threat × Participant Sex interaction, $F(1,138)=2.80, p=.10$. For male participants there was a no Needs × Threat interaction, $F(1, 65)=2.56, p=.11$. Additionally, for female participants, there was no Needs × Threat interaction, $F(1, 73)=0.48, p=.49$ (see Figure 8).

*Need for affiliation.* A 2 (threat: threat/control) × 2 (participant sex) ANOVA for the affiliation measure revealed no significant main effects or interactions.
Conclusion

Findings from the full sample of participants failed to support the hypothesis that in the control condition, participants would be more likely to support the leader who was more consistent with the leadership role (i.e., the agentically-described male). Furthermore, findings did not support the hypothesis that in the threat condition, participants would be more likely to support the leader who was more consistent with the female gender role (i.e., the communally-described female). Together, findings from the voting and positive impression measure do not conclusively replicate, and therefore, firm conclusions cannot be made.

General Discussion

These findings did not provide sufficient evidence for how threat influences leadership choices. However, they help to identify the influence of threat on the need for affiliation. Specifically, findings from the subsample of participants in Experiment 1 indicated that participants who experience negative affect under threat are more likely to desire affiliation. Furthermore, the Experiment 1 subsample served as a partial replication of previous findings that for male participants, threat leads to detriments for male leaders relative to female leaders (Brown & Diekman, 2008). However, findings from the subsample of Experiment 1 failed to find evidence for affiliation as the mediator of the relationship between threat and voting. Findings from Experiment 2 were not conclusive nor were they consistent across all dependent variables in both samples. These issues within the experiments help to expose the potential limitations of these studies.

Limitations

The mediational analysis in Experiment 1 could have failed because completing the IOS/need for nurturance and protection in a leader scales might have allowed participants the opportunity to fulfill their need for affiliation and nurturance. Subsequently, after completing these scales, participants’ voting decisions could reflect their need for affiliation being partially
met. If this is the case, it would be virtually impossible to find affiliation as mediator of the relationship between threat and voting behaviors.

Another limitation may be the specific threat manipulation used here. Although I have successfully used *Silence of the Lambs* as a threat manipulation in the past, perhaps using *The Silence of the Lambs* in these experiments might have not threatened some participants because 1) participants did not actively engage in the threat manipulation; 2) participants were not fully identified with the movie manipulation. Additionally, participants could have ignored the movie manipulation, lowering the likelihood that participants would experience increased negative affect as a result of watching *The Silence of the Lambs*. It is hypothesized that both active engagement and identification with a threat increases negative affect, strengthening the effect of threat on subsequent tasks. An example of a threat manipulation that meets these criteria, for participants in the United States, would be asking participants to write about September 11th, 2001 (Landau, et al., 2004).

Affiliation is hypothesized to be closely associated with threat; thus, a stronger threat would elicit a higher level of affiliation. With a stronger threat manipulation it would be increasingly difficult for the needs measures to fulfill a substantial portion of participants’ needs. Therefore, a stronger incidental threat manipulation would lead to benefits for female leaders and evidence for affiliation as a mediator of the relationship between incidental threat and gendered leadership decisions might emerge.

In order to learn from these limitations, it is important to examine previous research that has found the effect. These past studies will provide knowledge that will aid in the development of future studies.

*Past Studies*

Recall from the introduction that Brown and Diekman (2008) found in two experiments that threat led to benefits for a female leader. These two experiments provided a basis for the current two experiments. However, a third experiment by Brown and Diekman (2008) also aids in the development of future possible studies. The third experiment sought not only to replicate the effect that threat leads to benefits for female leaders with a different threat manipulation, but it sought to provide a boundary condition the effect by either connecting the threat to the
subsequent leadership decision (integral threat) or not connecting the threat to the subsequent leadership decision (incidental threat). All participants were asked to write about their feelings about September 11th, 2001 (Landau et al., 2004) and think about what they wrote. Additionally, participants were either told to think about choosing a leader during a time of crisis (i.e., integral threat), or were given no additional instructions (i.e., incidental threat). Results showed that the incidental versus integral nature of the threat strongly moderated leadership evaluations. Participants who connected the threat to the leadership decision were more likely to choose a male leader relative to a female leader. However, replicating the findings from the first two experiments, participants who did not connect the threat to the leadership decision were more likely to choose a female leader relative to a male leader.

These three experiments by Brown and Diekman (2008) can inform future research on the mechanism behind incidental threat leading to benefits for female leaders. More specifically, by examining the specific findings that incidental and integral threat differentially influence gendered leadership preferences, studies can be developed using this incidental/integral threat framework to explore the mechanisms behind these two interesting effects.

Future Studies

Is the mechanism a motivation? Future studies should examine whether there are motivationally driven mechanisms that explain participants’ preferences for a male or female leader depending on the type of threat. Since unfulfilled goals and motivations strengthen over time (e.g., Shah, Friedman, & Kruglanski, 2002), if a motivational state underlies the influence of threat on gendered leadership decisions, then increased time between the threat and the leadership decision should result in stronger effects. In the proposed experiment, participants will be asked to write about September 11th, 2001 (Landau et al., 2004). Next participants will complete filler tasks and their preferences for a male or female leadership candidate. The order of the measures will be counterbalanced in order to examine the effect of delay on subsequent leadership evaluations. The instructions for the leadership evaluations will either be connected (i.e., integral) or not connected (i.e., incidental) to the previous threat. If a motivational state is driving gendered leadership evaluations, then increased time between the threat and the leadership evaluations would result in stronger preferences for a female leader under incidental
threat and stronger preferences for a male leader under integral threat, reflecting enhancement over time. However, if a motivational state is not driving gendered leadership evaluations, then increased time between the threat and the leadership evaluation would result in weaker preferences for a female leader under incidental threat and weaker preference for a male leader under integral threat, reflecting decay over time.

Decay over time would suggest that a cognitive rather than a motivational mechanism most likely explains the effect. Cognitively driven effects usually decay over time (e.g., Ebbinghaus, Ruger, & Bussenius, 1913). Therefore, if the results of this proposed experiment find that the effects of threat on gendered leadership preferences decay over time, future research needs to examine potential cognitive mechanisms for this effect. However, if the findings reveal an increase in strength over time, a motivational mechanism best explains the influence of threat on gendered leadership preferences. If this is the case, future research should continue to examine the possible motivational mechanisms behind the effects of incidental/integral threat on gendered leadership decisions.

_Subtlety of the effect._ The current experiments suggest that the effect is subtle. Changes to the original experimental protocol (i.e., adding the IOS and the nurturance/protection needs measure) could have eliminated the effect by creating too much of a delay for the threat to effectively influence the leadership task. In past research where similar procedures were used, participants completed the filler task in slightly less time as compared to the measures included here (PANAS, IOS, and the need for affiliation/nurturance subscales). Therefore, it is possible that due to timing issues, the threat was not as effective in influencing the leadership evaluation as it has been in the past. However, the possible decay function of this effect argue against the idea that threat is evoking motivational needs that drive gendered leadership preferences (e.g., Shah, Friedman, & Kruglanski, 2002). The possible decay function does support a cognitive mechanism (e.g., Ebbinghaus, Ruger, & Bussenius, 1913). Additional work in our laboratory, completed in Fall 2008, has replicated the finding that incidental threat leads to the reversal of the tendency to prefer male leaders (Brown & Diekman, 2008). The accumulation of findings indicates that this effect exists, although it is certainly subtle. Future research needs to take into account the nature of the effect, and researchers should pay close attention to experimental protocol when designing future studies.
Sex differences. Experiments 1 and 2 in the thesis did not investigate reason for possible sex differences in gendered leadership decisions due to threat. Findings from the subsample of Experiment 1 support the finding from Brown and Diekman (2008) that male participants are more likely to show that threat leads to detriments for male leaders. These sex differences in voting behaviors were further supported by findings from both the full sample and the subsample of Experiment 2.

In order to examine how consistently participant sex influences the Threat × Leader Sex interaction within the experiments conducted on this topic, I computed the effect sizes for the Threat × Leader Sex × Participant Sex interaction. Across five studies effect sizes for the interaction showed a fairly wide range (η=.08; η=.03; η=.007; η=.00002; η=.001). Based on these effect sizes, it is evident that participant sex effects emerge periodically but do not seem to be consistently influencing threat and leader sex. When participant sex differences do emerge, male participants are more likely to show the predicted effects. Future research should investigate when these sex differences emerge and why male and female participants might be differentially influenced by threat in terms of their gendered leadership decisions.

Implications

In these studies, I examined affiliative needs as a possible mechanism for the relationship between threat and voting for a leader. Although affiliation was not found to be a mediator of this relationship, the research has helped to provide evidence that threat leads to the increased need for affiliation. More research is needed to examine the mechanism for why incidental threat leads to benefits for female leaders but detriments for male leaders. The current investigation did not provide evidence of the mechanism, but it suggests that the need for affiliation/nurturance might still help to explain the reversal of the tendency to prefer a male leader under threat. Future research needs to explore this question by maximizing the threat evoked. Additionally, researchers should be wary about including measures between the threat and the subsequent leadership decision. With this experimental knowledge, more evidence can be gathered as to whether affiliation helps to explain the influence of incidental threat on gendered leadership decisions.
Figure 1.
The effect of threat on voting for male and female leaders. Experiment 1 subsample analysis.

The scale ranged from 1 (definitely not support/vote for) to 7 (definitely support/vote for).
Figure 2.
The influence of threat and participant sex on nurturance/protection needs. Experiment 1 subsample analysis.

The scale ranged from 1 (*not so important*) to 7 (*very important*).
Figure 3.
The effect of leader sex, leader traits, and participant sex on communal and agentic trait ratings. Experiment 1 subsample analysis.

The scale ranged from 1 (*very unlikely*) to 7 (*very likely*).
Figure 4.
The effect of threat, leader sex, participant sex, and leader traits on positive impression of the leadership candidate. Experiment 2 full sample analysis.

The scale ranged from 1 (do not like/does not represent/will not have a positive impact) to 7 (like a lot/does represent/will have a positive impact).
Figure 5.
The effect of threat, participant sex, and needs on nurturance and protection needs. Experiment 2 full sample analysis.

The scale ranged from 1 (not so important) to 7 (very important).
Figure 6.
The effect of threat, leader sex, participant sex, and leader traits on supporting the leadership candidate. Experiment 2 subsample analysis.

The scale ranged from 1 (definitely not support/vote for) to 7 (definitely support/vote for).
Figure 7.
The effect of threat, leader sex, participant sex, and leader traits on positive impression of the leadership candidate. Experiment 2 subsample analysis.

The scale ranged from 1 (do not like does not represent will not have a positive impact) to 7 (like a lot does represent will have a positive impact).
Figure 8.
The effect of threat, participant sex, and needs on nurturance and protection needs. Experiment 2 subsample analysis.

The scale ranged from 1 (not so important) to 7 (very important).
References


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