

How Gender-Role Salience Influences Attitude Strength and Persuasive Message Processing

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Abstract

We conducted three studies to examine the relationship between gender and persuasion. We tested the notion that making gender roles salient affects the strength of individuals' attitudes and the way they respond to persuasive information. In Studies 1 and 2, we found that priming women with the female gender role reduced the strength of their attitudes (Study 1, $N = 50$) and increased their susceptibility to persuasion through a low-thought process (Study 2, $N = 98$). In Study 3, we manipulated the salience of both the female and male gender role among men and women and assessed persuasion to a counter-attitudinal message ($N = 185$). We found that the female and male primes affected men and women similarly, with the female prime causing participants to process messages superficially and the male prime leading to thoughtful message processing. These findings help to explain women's slightly greater persuadability in meta-analyses and provide evidence of harms that stereotypes about women can cause. Moving forward, we urge researchers to be wary of gender salience in the research context, especially when conducting persuasion research.

Keywords

persuasion, attitudes, gender roles, gender stereotypes, gender differences

In the 1970s, the traits of being “yielding” and “gullible” were judged as more typical of and acceptable for a woman than for a man, while being “analytical,” “taking a stand,” and “defending one’s own beliefs” were judged as more typical of and desirable for a man than for a woman (Bem, 1974; Spence, Helmreich, & Stapp, 1974). These stereotypes concerning men and women’s susceptibility to influence have remained remarkably consistent for the past 40 years. Traits such as being “wavering,” “naive,” and “easily influenced” continue to be rated as more typical and acceptable for women than for men (e.g., Auster & Ohm, 2000; Carli, Alawa, Lee, Zhao, & Kim, 2016; Prentice & Carranza, 2002), while traits such as “intelligent,” “rational,” “consistent,” and “stubborn” are still regarded as more typical and desirable for men than for women (Carli et al., 2016; Prentice & Carranza, 2002).

We focused our current research on the salience of gender roles as a moderator of the relation between gender and persuadability, which sometimes appears in research on attitude change (e.g., Eagly, 1978; Eagly & Carli, 1981; Stiff & Mongeau, 2003; Wood & Stagner, 1994). Specifically, we tested the proposition that women’s greater susceptibility to persuasion, reported in some past research, may have been due to gender-role salience in the research context. We hypothesized that making the female gender role salient would reduce the attitude strength of women participants and

reduce the persuasive-message processing of both men and women participants. We also hypothesized that making the male gender role salient would support thoughtful processing of persuasive messages in both women and men.

Gender Salience and Openness to Attitude Change

While the idea that women are more easily persuaded than men is a “colloquial truism” (Stiff & Mongeau, 2003, p. 166), conclusions from the literature on gender differences in persuasion are unclear, with some investigations yielding gender differences in persuadability and others revealing no differences (Stiff & Mongeau, 2003; Wood & Stagner, 1994). To adjudicate among these conflicting results, scholars have turned to meta-analysis. Aggregating across the literature, scholars have found women to be more susceptible to

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persuasion overall than men, though the effect sizes have been small (Becker, 1986; Cooper, 1979; Eagly & Carli, 1981) ranging, for example, from .09 to .16 in a meta-analysis by Eagly and Carli (1981).

Although certainly valuable, such aggregations offer little in the way of explanation for the variable gender effects across studies (Becker, 1986). Indeed, one scholar in this area concluded that “accounting for the inconsistencies in these sex differences is a more important matter than describing this overall trend” (Eagly, 1987, p. 102). Other scholars have more recently acknowledged that there remains a need to understand why, when, and how participant gender influences persuadability (Briñol & Petty, 2005; Nelson & Vilela, 2012). Examinations of gender as a source and message variable in the persuasion process have been ample (e.g., Carli, 2001; M. M. Morrison & Shaffer, 2003; Whiting, Maynes, Podsakoff, & Podsakoff, 2012). For example, gender has been examined as a source characteristic in research on the perceived credibility and persuasiveness of women versus men expert witnesses (for a review, see Neal, 2014). Gendered features of the persuasive message itself are also known to affect persuasion outcomes, such as the finding that masculine consumers react negatively to feminine brands (Neale, Robbie, & Martin, 2016). However, less work in the last several decades has endeavored to explain the intermittent effects of the receiver’s gender on the processing of persuasive messages.

One key to understanding the observed inconsistencies in the effect of recipient gender on persuasion may lie in the acknowledgment that the salience of gender roles varies across situations. A wealth of existing evidence suggests that even very subtle cues in the study context can activate social categories. Such cues include things as simple as the clothing or race of the experimenter, the mere presence of other participants in the study context, or the collection of specific demographic information from participants (e.g., Danso & Esses, 2001; Hebl & Mannix, 2003; Steele & Ambady, 2006; Williams, Turkheimer, Magee, & Guterbock, 2008). The salience of gender can be activated by cues like this in laboratory settings (e.g., Lemm, Dabady, & Banaji, 2005; Steele & Ambady, 2006) and community settings (e.g., Hilliard & Liben, 2010; Randel, 2002).

When a particular social category is mentally activated, it has powerful consequences for thought and behavior (e.g., Kawakami et al., 2012). Most studies examining the automatic influence of social category information on behavior have found assimilation effects, with participants altering their behavior to be congruent with the expectations associated with the group being primed (for reviews, see Molden, 2014; Wheeler & DeMarree, 2009). For example, in one study, Steele and Ambady (2006) examined the impact of a female gender-role prime on women’s attitudes toward arts and mathematics and found that the prime caused women to align their personal preferences with the stereotypes for their gender. In another study, Asian American women’s math

performance was hindered by the activation of their gender identity, consistent with the stereotype that women are bad at math (Shih, Pittinsky, & Ambady, 1999). When women participants are in a research context where their gender is salient, they may show gender-stereotypic changes in attitudes and persuasion.

The automatic influence of primed social category information on behavior also holds for individuals who are not members of the social category (Dijksterhuis & van Knippenberg, 1998; Wheeler, DeMarree, & Petty, 2008; Wheeler, Jarvis, & Petty, 2001). University students primed with the stereotype of professors, for example, have been shown to do better on general knowledge tests than those who were primed with the stereotype of a cleaning lady (Hansen & Wänke, 2009). Thus, when men are reminded of the stereotypical female gender role or women are reminded of the stereotypical male gender role, it may induce behavior consistent with expectations about that outgroup (Hansen & Wänke, 2009; Morrison, Johnson, & Wheeler, 2012). The automatic influence of social category information also occurs in spite of explicit intentions to avoid its influence (Kawakami, Dovidio, & Dijksterhuis, 2003). The robustness of these effects is theorized to be due to the unconditional nature of spreading activation (Collins & Loftus, 1975).

The spreading-activation theory of human semantic processing (Collins & Loftus, 1975; Collins & Quillian, 1969) posits that when the memory representation for a concept is activated, implicitly or explicitly, activation spreads to neighboring stored representations. The spread of activation expands without intention, awareness, or effort and is described as an automatic process. Because all individuals have stored representations about men and women in their minds (Bem, 1981; Mahalik, Good, & Englar-Carlson, 2003), these representations and their associations can be automatically activated to influence behavior.

The Current Studies

To test the notion that gender-role salience can affect individuals’ openness to attitude change, we first experimentally manipulated the salience of the female gender role in female participants and measured their attitude strength (Study 1). Based on the stereotype that women are more persuadable than men, we expected that making female gender role norms cognitively available would cause women to report weaker attitudes that are more susceptible to persuasion.

In Study 2, we examined the effect of female gender salience on actual persuasion. Given that women are stereotyped as yielding, female gender-role salience may predispose women toward accepting advocacies of all kinds, irrespective of their quality. If this is true, female gender-role salience would affect attitudes by biasing elaboration in favor of the expectation for women to be yielding (Petty & Wegener, 1999). We expected that this would result in greater persuasion to both compelling and specious persuasive messages,

compared to participants in a control condition (Petty & Cacioppo, 1986). This pattern of results would help to explain why women have been found to be more persuadable than men on average across studies; in study contexts where participant gender is salient, women participants may become increasingly yielding.

However, it is possible to derive another prediction from the literature about how female gender-role salience may affect persuadability. A variable such as social category activation can bias information processing, but it can also affect the amount of information processing or the degree of elaboration individuals engage in (Petty & Wegener, 1999). As it pertains to persuasion, gender roles not only include norms about men's and women's overall influenceability, they also contain expectations about how deliberative and intelligent men and women are, with women being seen as less rational and competent than men on average (e.g., Carli et al., 2016; Heilman, Wallen, Fuchs, & Tamkins, 2004; Latu et al., 2011; Moss-Racusin, Dovidio, Brescoll, Graham, & Handelsman, 2012; Prentice & Carranza, 2002). Thus, the female gender role may cause women to process information uncritically and superficially.

If gender role norms shape how deeply individuals process information, it could also help to explain gender differences in persuasion reported from past research. When a persuasive message is weak or of only moderate quality, reduced information processing can lead to greater acceptance of the message because of an inability to detect flaws in the message and produce rebuttals. Therefore, when a message is of low-quality, female gender-role salience would render women more likely to accept the position advocated by the message. On the other hand, when a persuasive message includes strong claims that are impervious to counter-argumentation, reductions in critical thinking would lead to lower acceptance of the message because of a failure to appreciate and elaborate on its merits. Thus, rather than biasing the way persuasive messages are processed, gender norms may instead influence the depth with which persuasive messages are processed, leading women to be sometimes (but not always) more open to persuasion.

Finally, it is possible that activating the female gender role may result in both of the effects described above—biasing participants toward accepting persuasive messages and influencing the depth with which messages are processed (Petty & Cacioppo, 1986). In Study 2, we sought to tease apart these various hypotheses by exposing women to female or gender-neutral (“control”) primes and assessing their persuasion to strong and weak messages. In Study 3, we extended our examination of the effects of gender norms on persuasion to include both men and women participants and male gender-role primes. Specifically, we exposed female and male participants to female, male, or control primes in a between-subjects design and then assessed persuasion in response to a counter-attitudinal message as well as the cognitive processes responsible for this persuasion.

Study 1

In Study 1, we examined the impact of gender salience on the strength of participants' attitudes by nonconsciously activating the concept of the female gender role in women participants and assessing various strength-related features of their attitudes. Over the last few decades, researchers have identified roughly a dozen distinct features of attitudes that are associated with attitude “strength” or how resistant to change and impactful an attitude is (for a review, see Visser, Bizer, & Krosnick, 2006). Some of these strength-related attitude features include the amount of importance and certainty people attach to their attitudes or the amount of information people have stored in memory about the attitude issue. We hypothesized that when women's gender roles were made salient, they would express weaker attitudes that are more susceptible to persuasion. Specifically, we expected that, compared to the control condition, women primed with the female gender role would report lower levels of attitude-relevant knowledge, certainty, and importance and higher levels of attitudinal ambivalence across multiple attitude issues unrelated to gender (e.g., public transportation).

Study 1 also included measures designed to distinguish the effect of the female gender-role prime on attitude strength from the effect that the manipulation might have on overall scale use. Specifically, in addition to the key dependent variables, comparable scales were used to assess responses to questions unrelated to attitude strength (such as the amount of time participants spend on leisure activities). It was anticipated that the prime would only affect responses to items related to the strength of participants' attitudes. Mood was also measured to assure that the primes had no effect on participants' mood and could not be responsible for any prime-related effects.

Method

Participants and Procedure

Fifty-four female college undergraduates at a mid-sized private Midwestern university participated in this study.¹ Four of these students were taking a class with the first author in which she had described the present study and were therefore removed from all analyses. Of the 50 remaining participants, participant age ranged from 18 to 24 ($M = 20.30$, $SD = 1.43$). Thirty-eight percent of participants were college juniors ($n = 19$), 22% were seniors ($n = 11$), 22% were sophomores ($n = 11$), and 18% were freshmen ($n = 9$). Eighty-two percent of our sample self-identified as White ($n = 41$), with 8% identifying as Asian ($n = 4$), 4% as Black ($n = 2$), and 6% as “other” in terms of race ($n = 3$). Participants completed the study alone in a research room on campus using a computer. Participants completed a battery of computerized tasks lasting approximately 30 min and they received either partial course credit or US\$5.00 in compensation.

Upon arriving at the lab, participants were greeted by a female experimenter who was blind to the study hypotheses

and were led to a computer station to participate in the study. The experimenter explained that participants would be completing a “vigilance task” followed by attitude, personality, and demographic questions. All tasks were completed on the computer with questions appearing in the same order for all participants, using keyboard responses and guided by instructions on the screen.

Manipulation and Measures

Female gender-role prime. Participants first completed the priming manipulation, framed as a “vigilance task” (Steele & Ambady, 2006). For this task, participants were instructed to stare at a single crosshair that appeared in the center of the screen for 4,000 ms and to use keyboard responses to identify whether a “flash” appeared on the right- or left-hand side of the crosshair. These “flashes” were either words related to the female gender role such as “she” and “skirt” (in the female gender priming condition) or words unrelated to gender such as “carpet” and “glue” (in the control condition), which were developed by Steele and Ambady (2006; see the Appendix for the full list of words used in each condition). Each word appeared in capital letters for 80 ms and was immediately followed by a masking image for 80 ms. Because of the brief, parafoveal presentation of the prime words and the mask that followed, the prime was considered nonconscious. After the mask disappeared, the screen remained black for an unlimited amount of time until the participant gave their response.

In total, the priming task consisted of 10 practice trials and 40 critical trials, lasting a total of 2–3 minutes. Participants in both conditions were given the same 10 practice trials, during which gender-neutral words were presented. Afterward, participants were notified that the task would be starting and were asked to press the enter key when ready to begin. During the 40 critical trials, words were presented randomly on either the left or the right side of the screen; each side appeared exactly 20 times during the 40 critical trials. Words were sampled randomly from each list, depending on condition, with the additional constraint that all words appeared at least once for each participant.

Strength-related attitude measures. Immediately following the priming manipulation, participants’ attitudes toward two campus issues, (a) transit authority discounts for university students and (b) changes to the university’s core curriculum, were assessed, along with several indices of the strength of those attitudes. Attitudes toward these two issues were each assessed on a single 7-point, fully-labeled scale (1 = *extremely opposed* to 7 = *extremely in favor*). The strength-related features of these attitudes, which constituted the dependent measures in this study, were assessed by asking participants to rate how knowledgeable they considered themselves to be on each issue (attitude-relevant knowledge), how certain they were about their opinions on each issue (attitude certainty), how important each issue was to them

personally (attitude importance), and how conflicted they felt about each issue (attitude ambivalence). Ratings of each of the features for each attitude were done on 5-point scales (1 = *not at all* to 5 = *extremely*; Wegener, Downing, Krosnick, & Petty, 1995).

The issues of transit authority discounts and changes to the university core curriculum were selected because pretesting indicated that men and women from the sample population held similarly favorable attitudes toward these issues and had attitudes of similar strength toward these issues. Even though Study 1 included only female participants and manipulated only the salience of the female gender role, we used only attitude issues that were not of special interest to one gender. If we had used an issue that was more important to women than to men, for example, making the female gender role salient might also activate that gender-related attitude and its tags and features, possibly increasing the personal importance placed on the issue. However, we investigated the effect of gender-role salience on attitudes and persuasion in general—not toward topics related to gender. Participants were presented with questions related to the transit issue first and to the core curriculum issue second. Participants were given a description of each issue identical to the description from the pretest, expressed their attitudes toward each issue, and completed the various attitude strength measures.

Other measures. To rule out the possibility that any observed differences in reported attitude strength in the prime condition may simply reflect omnibus differences in response scale usage, participants were asked to use 5-point scales to report their attitudes and perceptions on three measures unrelated to attitude strength: how often they listened to music each week (1 = *not at all* to 5 = *all the time*), how much time they spent engaged in leisure activities each week (1 = *no time at all* to 5 = *a great deal*), and how healthy they considered themselves to be relative to their same-age peers (1 = *far less healthy than my peers* to 5 = *far more healthy than my peers*).

The 16-item version of the Positive and Negative Affect Schedule (PANAS) was used to assess participant mood after all attitude measures were completed (Watson, Clark, & Tellegen, 1988). All items were coded, so that higher scores represented higher levels of positive affect; internal consistency was acceptable ($\alpha = .93$). This scale was included to assess whether the prime affected participants’ moods. Basic demographics, including participants’ gender, age, race or ethnicity, and year in college, were then collected. It was important for us to know what year in college these participants were because the attitude issues in this study were related to student status (i.e., getting student discounts on public transportation and changing the university’s core curriculum).

A funnel-style suspicion check was given at the end of the study to assess whether participants ascertained the study hypotheses, the relationships among variables we were

investigating, or whether participants consciously perceived the words in the parafoveal prime. The first question asked, “What do you think this study is about?” The second question asked, “Did you notice any words being presented to you in the flashes that occurred during the vigilance task?” The third question asked, “If you saw words presented to you in the vigilance task, can you recall any of them?”

Results

The open-ended, funnel-style suspicion check revealed that none of the participants recognized the words they were presented with in the priming task, nor did they guess the study’s hypothesis or general purpose. We did not expect the female gender-role prime to affect participants’ overall favorability toward the two campus issues, and no such effects emerged. A one-way analysis of variance (ANOVA) using prime type (control vs. female gender prime) to predict attitudes toward the transit issue and the core curriculum issue revealed no significant effects, $M = 6.20$, $SD = 1.53$ versus $M = 5.76$, $SD = 1.72$, $F(1, 48) = 0.92$, $p = .34$ and $M = 5.84$, $SD = 1.68$ versus $M = 5.16$, $SD = 1.57$, $F(1, 48) = 2.19$, $p = .15$, respectively.

We did, however, expect the female gender prime to affect the strength of participants’ attitudes. To assess the impact of gender salience on attitude strength, we conducted an ANOVA using prime type to predict the various facets of attitude strength for each attitude issue. Because attitude strength is most commonly understood as having a multifaceted, rather than unidimensional, structure (e.g., Eaton, Majka, & Visser, 2008), we examined attitudinal knowledge, certainty, importance, and ambivalence separately rather than combining them into a single construct.

A significant effect of prime type emerged such that participants given the female gender-role prime had lower levels of attitude knowledge toward the curriculum issue, $M = 3.04$, $SD = 1.17$ versus $M = 3.76$, $SD = 0.97$, $F(1, 48) = 5.60$, $p < .05$, and toward the transit issue, $M = 2.36$, $SD = 1.04$ versus $M = 2.96$, $SD = 0.98$, $F(1, 48) = 4.43$, $p < .05$, compared to controls. Female gender-role primed participants showed lower levels of certainty toward the curriculum issue compared to controls, $M = 3.68$, $SD = 0.95$ versus $M = 4.24$, $SD = 0.97$, $F(1, 48) = 4.28$, $p < .05$, and marginally lower levels of certainty toward the transit issue, $M = 3.52$, $SD = 1.19$ versus $M = 4.04$, $SD = 0.84$, $F(1, 48) = 3.17$, $p = .08$. Female-primed participants had lower levels of attitude importance toward the curriculum issue than controls, $M = 3.12$, $SD = 1.13$ versus $M = 4.00$, $SD = 1.08$, $F(1, 48) = 7.93$, $p < .01$, but not the transit issue, $M = 3.52$, $SD = 1.48$ versus $M = 3.60$, $SD = 1.19$, $F(1, 48) = 0.05$, $p = .83$. Female gender-role primed participants had higher levels of ambivalence toward the curriculum issue than controls, $M = 2.12$, $SD = 1.13$ versus $M = 1.40$, $SD = 0.87$, $F(1, 48) = 6.40$, $p < .05$, but not toward the transit issue,

$M = 1.84$, $SD = 0.99$ versus $M = 1.68$, $SD = 0.90$, $F(1, 48) = 0.36$, $p = .55$.

In order to determine whether the female gender-role prime actually weakened participants’ attitudes or if it simply elicited a tendency for participants to select less extreme responses on scales, we assessed the impact of prime type on the measures unrelated to attitude strength. *t* Tests did not reveal significant differences between the female gender-role primed condition and the control condition in the attitude strength-unrelated items (all *ts* < .31, all *ps* > .76). A one-way ANOVA failed to uncover differences in the 16-item PANAS composite (Cronbach’s $\alpha = .93$, with negative mood items reverse coded) between the gender primed group ($M = 69.20$, $SD = 16.04$) and the control group ($M = 70.96$, $SD = 14.83$), $F(1, 48) = 0.16$, $p = .69$. Mood also did not predict any of the strength-related attitude features (all *ps* > .75). Thus, mood cannot explain the between-group differences in attitude strength produced by the primes.

Discussion

Study 1 demonstrated that when the female gender role is cognitively available to women participants, they report weaker attitudes than when it is not especially salient. In line with our hypothesis, female-primed participants reported lower attitude-relevant knowledge, certainty, and importance and higher ambivalence toward the curriculum issue. They also reported significantly lower levels of knowledge and marginally lower levels of certainty toward the transit issue. These differences in strength-related attitude features appear to represent differences in attitude strength specifically, as no effects of the prime were found on any of the items unrelated to attitude strength using similar response scales. Thus, it appears that temporary (and even nonconscious) salience of gender role norms is sufficient to produce gender-stereotypic between-group differences in attitude strength.

However, because research cautions against combining different strength-related attitude features into a single measure (Eaton et al., 2008), we had to test each of the four attitude strength features separately (i.e., certainty, knowledge, importance, and ambivalence). Moreover, we could not combine identical strength-related features across the two attitude issues (e.g., attitude certainty on the transit issue and attitude certainty on the curriculum issues) because most of the 2-item scales were not sufficiently reliable. Therefore, we caution against over-interpreting the findings for each individual facet of attitude strength.

Study 2

Having demonstrated that cognitively activating the female gender role leads women to report weaker attitudes, our next step was to examine the effect of gender salience on women’s actual persuadability. Given that women are stereotyped as

influenceable and wavering, female gender-role salience may lead to increased attitude change to persuasive messages of all kinds. Female-primed participants may engage in effortful central route processing (Petty & Cacioppo, 1981, 1986), but with a bias toward the acceptance of messages. In this case, female-primed participants would show a positive main effect of the prime on persuasion, being more persuaded overall than control participants, while still demonstrating greater persuasion to cogent than to flawed arguments.

On the other hand, because women are also stereotyped as less intelligent and thoughtful than men (e.g., Auster & Ohm, 2000; Eagly & Karau, 2002; Moss-Racusin et al., 2012; Prentice & Carranza, 2002), making the female gender role salient may cause women to process persuasive information more superficially. That is, they may process persuasive messages using the peripheral route to persuasion, which involves using simplifying heuristics and low levels of analysis. This would result in an inability to distinguish between strong and weak messages. Finally, gender norms may influence both how carefully individuals process messages and how persuadable they are overall. Women primed with the female gender role may be more accepting of both strong and weak messages, compared to control women, and also fail to show argument quality differentiation—evidence of thoughtless message processing. Study 2 was conducted to test the extent to which female gender-role salience affects overall persuasion and the cognitive processing of persuasive information.

Method

In Study 2, we manipulated the salience of the female gender role among women participants, exposed them to a persuasive message, and assessed their degree of attitude change. To clarify the process by which gender-role salience affects persuasion, we also manipulated the quality of the persuasive arguments participants were exposed to. Some participants were randomly assigned to receive a message containing strong and compelling persuasive arguments, whereas others received a message containing weak and specious arguments. This procedure allowed us to determine the amounts of cognitive processing participants engaged in when reading and thinking about the message. When people carefully process a persuasive message, they exhibit more attitude change in response to strong arguments than to weak arguments. In the major dual-process theories of persuasion (e.g., Chaiken, 1980; Petty & Cacioppo, 1981), being more persuaded by the strong persuasive message than the weak one is the hallmark of thoughtful “central route” processing (Petty & Briñol, 2012) and is referred to as “argument quality differentiation.” In contrast, when people process a persuasive message superficially using the “peripheral route” to persuasion, they are not more persuaded by high-quality (compared to low-quality) arguments. Peripheral route processing “. . . is engaged when one is uninvolved in the topic and/or unable or unwilling to devote the resources necessary for careful processing of the message content”

(Sherman, Beike, & Ryalls, 1999, p. 218). In this way, researchers use argument quality differentiation as an index of participants’ cognitive processing of persuasive messages.

Based on this reasoning if female-primed participants accept both strong and weak messages at a greater rate than controls, we could conclude that female gender salience affected the persuasion process by biasing elaboration in the direction advocated by the message and in line with the norm for women to be yielding. On the other hand, corresponding to the norm for women to be less rational and competent than men, female-primed participants may also, or instead, show less thoughtful processing of messages than controls, as demonstrated by reduced or unapparent differentiation between strong and weak persuasive messages.

Participants and Procedure

One hundred and four female adults were recruited and participated in public locations (including a restaurant, a bowling alley, and a fast food court) in a large city in the Midwest. Up to four undergraduate research assistants and the principal investigator individually approached adults in these locations and asked if they wanted to participate in a short, anonymous, university-based psychology study for cash. If not currently sitting at a table, participants were escorted to an open table where they could take the survey.

The mean age of the sample was 38.39 years ($SD = 16.92$), ranging from 18 to 84 years. Three individuals did not indicate their age. Sixty percent of our sample self-identified as White ($n = 62$), with 17% identifying as Black ($n = 18$), 14% as Hispanic ($n = 14$), 4% as Asian ($n = 4$), 2% as “other” ($n = 2$), and 4% not indicating their race ($n = 4$). Participants completed a paper and pencil questionnaire and received US\$3.00 in compensation.

Participants first reported their attitudes toward capital punishment, couched in a number of questions about a variety of social and political issues. After reporting their attitudes, participants were randomly assigned to be primed with words related to the female gender role or unrelated to the female gender role using a sentence unscramble task. Next participants were randomly assigned to read either a strong or a weak persuasive message opposing the death penalty for the ostensible purpose of “evaluating an editorial that argues in favor of a particular point of view.” After reading this message, participants were asked to evaluate the message along several dimensions and to report their attitudes toward capital punishment as part of that evaluation. We used participants’ initial attitudes toward the death penalty and their post-message attitudes to determine the responsiveness of their attitudes to the persuasive message.

Manipulation and Measures

Attitude toward the death penalty. Participants’ initial attitudes toward the death penalty were measured on a fully-

labeled scale (1 = *strongly oppose* to 7 = *strongly in favor*). This question was embedded among several other political and social attitude questions (e.g., questions regarding tax cuts, immigration, and free trade) to prevent participants from noticing that their attitude about the death penalty was assessed twice.

Female gender-role prime. In Study 2, we used a sentence unscramble task to surreptitiously expose participants to words related to, or unrelated to, the female gender role. The sentence unscramble task was ostensibly for the purpose of focusing participants' attention. In both the gender-role priming condition and the control condition, participants were asked to unscramble four separate strings of words to make four grammatically correct sentences. Tasks of this sort have been used in many previous studies to nonconsciously activate particular concepts or categories (Levesque & Pelletier, 2003; Radel, Sarrazin, Legrain, & Gobance, 2009; Stajkovic, Locke, & Blair, 2006).

In the female gender-role priming condition, the sentences to be unscrambled included words related to the female gender role such as "she," "skirt," and "lipstick" (Steele & Ambady, 2006). An example of one of the female sentence unscrambles was: "her woman lipstick kept the in purse her" (see the Appendix for a full list of all sentence unscrambles used as primes in this study). In the control condition, the sentence unscrambles included only gender-neutral words, such as "carpet," "glue," and "breakfast." An example of one of the control sentence unscrambles was: "banana breakfast had pancakes for they." These were the same words used in the priming task from Study 1. Pretesting indicated that the control sentence unscrambles and the female sentence unscrambles took approximately equivalent amounts of time to complete and were therefore deemed similarly difficult.

Other measures. Arguments against capital punishment were collected from a number of editorials and political action sites, such as that of the ACLU. Strong and weak persuasive messages were composed based on these arguments. These messages were each one page in length and had been pretested to ensure the strong message was more cogent than the weak message and led to more attitude change than the weak message when individuals scrutinized the content of the messages (see Appendix for the persuasive messages and email the author for pretest results).

After reading the persuasive message (framed as an editorial), participants were asked to evaluate the quality of the message. Specifically, participants were asked to indicate on fully-labeled 5-point scales (1 = *not at all* to 5 = *extremely*) how well-written they thought the editorial was, how logical the editorial seemed, and how expert the author of the editorial seemed to be on this topic. These three measures were averaged into one aggregate measure of perceived message merit (Cronbach's $\alpha = .85$).

After reading the persuasive message, participants were asked to report their attitudes toward the death penalty for the

ostensible reason that their "evaluation of the editorial may have been affected by your own attitude toward the topic." Participants' post-message attitudes were measured on the same 7-point scale as their initial attitudes. Basic demographics, including participants' gender, age, and race/ethnicity, were collected last. An open-ended suspicion check question was used to see whether participants ascertained the purpose of the study or the relationships being studied. The question was "What do you think the study is about?"

Results

Responses to an open-ended suspicion check, in which participants expressed their thoughts about the study and its purpose, provided no evidence that any participants in either condition recognized that the sentence unscramble task might be related to their answers later in the questionnaire. All analyses were first performed examining those for whom the persuasive message was pro-attitudinal (those initially neutral toward or opposed to the death penalty, $n = 44$) separately from those for whom the message was counter-attitudinal (those initially in favor of the death penalty, $n = 59$). One person did not respond to the initial measure of death penalty attitudes. However, when initial death penalty attitudes were entered as a factor in a 2 (Female Prime vs. Control) \times 2 (Weak vs. Strong Argument) \times 2 (Pro-Attitudinal vs. Counter-Attitudinal) ANOVA on perceptions of message merit, no interactions involving initial attitudes were significant (all F s < 1.20 , all p s $> .27$). Initial attitudes toward the death penalty also did not interact with prime type or argument quality to affect attitude change (all F s < 2.60 , all p s $> .10$). Therefore, we collapsed across this variable to provide additional power for our analyses.

Perceptions of Message Merit

A 2 \times 2 between-subjects ANOVA was performed to examine the effect of prime type (gender-role priming or control) and argument quality (weak or strong) on subjective perceptions of the message merit. Because this sample had a much more diverse age range and racial composition than our previous sample of college students, we sought to control for the potential impact of age and race on the strength of participants' attitudes on the death penalty issue. Specifically, we included participant age (represented as linear and quadratic terms, in line with past research on age and attitude strength; Visser & Krosnick, 1998) and race (coded as White or racial or ethnic minority) as covariates in all analyses. The four individuals who did not report their race were excluded from analyses. It was important to control for age in this diverse, non-student sample because previous research supports a curvilinear association between age and persuasion in the United States, with individuals in middle age being the most resistant to change (Eaton, Visser, Krosnick, & Anand, 2009; Visser & Krosnick, 1998). Controlling for participant race was also

important because race has long been related to attitudes and attitude strength toward capital punishment (e.g., Maggard, Payne, & Chappell, 2012; Unnever & Cullen, 2007).

No main effects of the control versus female prime emerged on perceptions of the message merit, $M = 3.35$, $SD = 0.83$ versus $M = 3.30$, $SD = 0.70$, $F(1, 91) = 0.00$, $p = .98$. A main effect of argument quality was obtained such that participants perceived the strong message as more meritorious (more well-written, logical, etc.) than the weak message, $F(1, 91) = 5.50$, $p < .05$. However, this effect was qualified by a significant interaction between prime type and argument quality, $F(1, 91) = 7.66$, $p < .01$. To probe this interaction, the control and gender-primed conditions were examined separately.

Those in the control condition accorded significantly more merit to the strong than the weak message, $M = 3.64$, $SD = 0.77$ versus $M = 2.94$, $SD = 0.70$, $F(1, 39) = 10.70$, $p < .005$, indicating that the control participants processed the messages thoughtfully. Those primed with the female gender role, however, failed to find more merit in the strong than the weak message, $M = 3.27$, $SD = 0.78$ versus $M = 3.32$, $SD = 0.64$, $F(1, 46) = 0.01$, $p = .92$, an initial indication that they did not carefully scrutinize the message (Figure 1). The covariate of race was non-significant in predicting message merit, $F(1, 91) = 1.20$, $p = .28$; the covariate of age was non-significant in predicting message merit, $F(1, 91) = 2.08$, $p = .15$; and the covariate of age-squared was marginally significant in predicting message merit, $F(1, 91) = 3.52$, $p = .06$.

Attitude Change

An index of attitude change was computed by subtracting post-message attitudes from initial attitudes, so that positive numbers indicated change in the direction advocated in the message (increased opposition to the death penalty) and negative numbers indicated change in the opposite direction (increased support of the death penalty). A 2×2 between-subjects ANOVA was then performed using prime type, argument quality, and the interaction of prime type and argument quality to predict attitude change, including the three covariates. Neither a main effect of argument quality nor a main effect of prime type was obtained on attitude change, $F(1, 87) = 1.80$, $p = .18$, and $F(1, 87) = 0.06$, $p = .81$, respectively. However, a significant interaction between prime type and argument quality was obtained, $F(1, 87) = 4.35$, $p < .05$. The control and gender-primed conditions were examined separately to probe the nature of this interaction.

Participants in the control condition were significantly more persuaded by the strong, $M = 0.60$, $SD = 0.99$, than by the weak arguments, $M = -0.16$, $SD = 0.76$, $F(1, 39) = 8.76$, $p < .005$, indicating that they carefully processed the message. Those who were primed with the female gender role, however, were not differentially persuaded by the strong, $M = 0.22$, $SD = 1.55$, compared to the weak argument, $M = 0.46$, $SD = 0.93$, $F(1, 48) = 0.00$, $p = .99$.

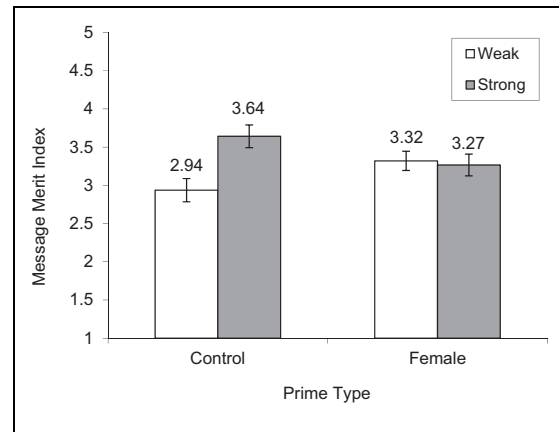


Figure 1. Ratings of the merit of strong and weak counter-attitudinal messages by prime type.

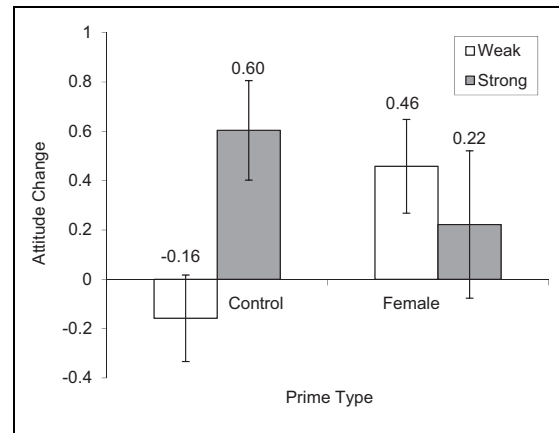


Figure 2. Attitude change to strong and weak messages by prime type.

Participants who were primed with the female gender role changed their attitudes more in response to the weak message than control participants, supporting the prediction that the prime affected their depth of processing, $F(1, 40) = 4.93$, $p < .05$. However, female-primed participants did not respond differently to the strong message compared to controls, $F(1, 47) = 1.63$, $p = .21$ (see Figure 2). Taken together, these findings suggest that female gender-role salience can lead to openness to attitude change by reducing cognitive elaboration. The covariate of race was non-significant in predicting attitude change, $F(1, 87) = 0.03$, $p = .87$; the covariate of age was marginally significant in predicting attitude change, $F(1, 87) = 3.26$, $p = .08$; and the covariate of age-squared was nonsignificant in predicting attitude change, $F(1, 87) = 1.53$, $p = .22$.

Discussion

In Study 2, women primed with the female gender role failed to differentiate between strong and weak persuasive

messages, and they exhibited significantly more persuasion in response to a weak message compared to controls. This pattern of results is consistent with the second prediction initially outlined: Activating the female gender role appears to have decreased participants' tendency to carefully scrutinize the persuasive message, rendering them more persuaded by specious arguments.

These first two studies identify a specific situational variable, gender salience, that may affect openness to attitude change and explain some gender differences in persuadability that have been obtained in past research. However, to fully address the issue of whether gender salience might explain prior differences found in men's and women's persuadability, we must compare the persuadability of male participants against that of female participants when gender has been made salient. Because men and women hold similar stereotypes about the male and female role (e.g., Prentice & Carranza, 2002), the automatic effect of activating the female gender role on message processing should hold for men as well as for women (e.g., Dijksterhuis & van Knippenberg, 1998; Wheeler et al., 2001). Thus, we expected both men and women participants to show reduced cognitive processing of persuasive messages when exposed to information about the female gender role compared to a control condition, just as women participants did in Study 2.

Our prediction for the effect of the male gender role on men's and women's persuadability was less clear. Both men and women believe it is typical and desirable for men to be consistent, unyielding, unimpressionable, and not gullible (e.g., Prentice & Carranza, 2002), indicating that men do, and should, generally resist persuasion. However, as mentioned earlier, men are also expected to be rational, intelligent, and independent thinkers (e.g., Carli et al., 2016; Prentice & Carranza, 2002). These norms should promote assiduous message processing with the potential for adjusting one's attitude in light of compelling evidence.

Because of the norm for men to resist influence, we left open the possibility that the male gender-role prime might also, or instead, have a biasing effect on the persuasion process, predisposing individuals toward defending their initial view. However, because the female prime only affected participants' depth of processing in Study 2, our primary prediction in Study 3 was that participants exposed to the male gender role would show a high level of message processing, evinced by significantly greater persuasion to strong than to weak messages.

Study 3

In Study 3, we manipulated the salience of male and female gender roles and examined men's and women's persuadability to strong and weak counter-attitudinal messages in a 3 (Prime Type: Female Prime, Male Prime, or Control) \times 2 (Argument Quality: Weak or Strong) \times 2 (Participant Gender: Female or Male) fully between-subjects design. First, we

expected female role primed participants to demonstrate less differentiation between the strong and weak messages, compared to those in the control condition, just as in Study 2. Second, we expected that participants exposed to the male role prime would show significant differentiation between strong and weak arguments in terms of their attitude change, being less persuaded by the weak argument than by the strong one. This pattern of results would be consistent with the stereotype for men to be analytical and intelligent. In addition, we left open the possibility that participants exposed to the male gender-role prime would, or instead, show a bias toward retaining their initial attitudes, compared to those in the control condition, demonstrating less overall attitude change. This pattern of results would be consistent with the stereotype that men are consistent and stubborn.

Method

Participants and Procedures

Three hundred and seven participants were recruited for participation in this online study from the psychology subject pool at a Southeastern Hispanic-Serving Institution. Of these, 185 (86 men, 99 women) participants were either in favor of the death penalty ($n = 143$) or neither in favor nor opposed to the death penalty ($n = 42$), making the persuasive messages counter-attitudinal for these participants. The mean age of the sample was 22.05 years ($SD = 5.66$), ranging from 18 to 57 years. Seventy-one percent self-identified as Hispanic ($n = 131$), 12% identified as White ($n = 23$), 11% identified as Black ($n = 21$), 3% identified as multi-racial ($n = 6$), 1% identified as "other" ($n = 2$), 0.5% identified as Asian ($n = 1$), and 0.5% identified as American Indian ($n = 1$). Participants completed the study online and received course credit as an incentive for their participation.

The procedure and measures for this study were the same as Study 2 with the change that all recruitment, administration, and data collection took place online, with participants completing the study from their homes, offices, or other locations. We also included a male gender-role prime and the use of both male and female participants. Participants first reported their attitudes toward a variety of social and political issues, including their attitudes toward capital punishment using the same 7-point scale from Study 2. After reporting their attitudes, participants were randomly assigned to be primed with words related to the female gender role, the male gender role, or unrelated to gender (i.e., the control condition) using the same sentence unscramble task from Study 2. Next participants were randomly assigned to read the same strong or weak persuasive messages opposing the death penalty from Study 2. After reading the message, participants were asked to evaluate the message and to report their attitudes toward capital punishment. We used participants' initial attitudes toward the death penalty and their post-message attitudes to determine the responsiveness of their attitudes to the

persuasive message. Demographic measures were collected at the end of the study.

In this study, we again used a sentence unscramble task to surreptitiously expose participants to words related to or unrelated to gender using items from Steele and Ambady (2006). The female gender role and control sentence unscrambles were identical to those used in Study 2. In the male gender-role priming condition, the sentence unscrambles included words such as “man,” “tie,” and “brother.” An example of one male sentence unscramble was: “red favorite his tool the was hammer.” Pretesting indicated that the all three sets of sentence unscrambles took approximately equivalent amounts of time to complete and were, therefore, deemed similarly difficult.

Results and Discussion

Responses to the open-ended suspicion check at the end of the survey provided no evidence that any participants thought the unscramble task might be related to their answers later in the questionnaire. An index of attitude change was computed by subtracting post-message attitudes from initial attitudes, so that positive numbers indicated change in the direction advocated in the message (increased opposition to the death penalty) and negative numbers indicated change in the opposite direction (increased support of the death penalty). A *t*-test indicated that men and women participants in our sample had similar initial attitudes toward the death penalty, $M = 5.73$, $SD = 1.10$ versus $M = 5.51$, $SD = 1.13$, $t(183) = 1.38$, $p = .17$.

To test our overall prediction that men and women would be similarly affected by the male and female primes, we first conducted a $3 \times 2 \times 2$ between-subjects ANOVA to examine the effect of prime type (Female Prime, Male Prime, or Control Prime) and argument quality (Weak or Strong) on male and female participants' levels of attitude change in response to the counter-attitudinal persuasive message. A main effect of argument quality emerged to predict participants' levels of attitude change, $F(1, 173) = 13.04$, $p < .001$. In general, participants changed their attitudes more in response to the strong message than the weak message, $M = 1.16$, $SD = 1.40$ versus $M = 0.45$, $SD = 1.16$, with attitude change occurring in the direction advocated by the message. However, this effect was qualified by a significant two-way interaction between prime type and argument quality, $F(2, 173) = 3.17$, $p < .05$. This interaction did not differ for male and female participants, that is, the three-way interaction between gender, prime type, and argument quality was non-significant at $p = .10$, $F(2, 173) = 2.32$, and it was the only other significant effect in this ANOVA (all other F s were < 2.76 and all other p s $> .07$). Thus, men and women appeared to react similarly to each of the primes. Figure 3 shows the levels of attitude change displayed to strong and weak messages as a function of the prime type, summed across men and women participants.

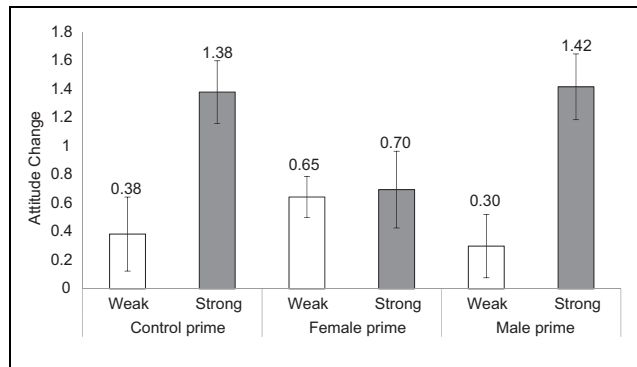


Figure 3. Attitude change to strong and weak counter-attitudinal messages by prime type, summed across all participants.

Our first prediction was that men and women exposed to the female prime would show less differentiation between weak and strong messages than their control counterparts. Contrasts revealed that participants exposed to the control prime were significantly more persuaded by the strong compared to the weak argument, $M = 1.38$, $SD = 1.35$ versus $M = 0.38$, $SD = 1.13$, $F(1, 179) = 8.99$, $p < .005$. On the other hand, participants exposed to the female prime did not show this differentiation, $M = 0.70$, $SD = 1.26$ versus $M = 0.65$, $SD = 1.45$, $F(1, 179) = 0.03$, $p = .87$, evidence that they did not carefully process the persuasive messages and consistent with the stereotype that women are unanalytical.

When using contrasts to compare the effects of the female versus the control prime on persuasion to the weak argument, we did not find a significant difference in persuasion to the weak argument, $F(1, 179) = 0.59$, $p = .44$. There was, however, a significant difference between female-role primed and control participants' persuasion to the strong argument, $F(1, 179) = 4.82$, $p < .05$, with control participants changing their attitudes more to the strong message than those in the female-primed condition. Again, this indicates that female role primed participants did not process the persuasive messages as carefully as controls, specifically failing to recognize the merits of the strong message.

To test our second hypothesis, that participants exposed to the male prime would demonstrate careful message processing, we performed contrasts comparing persuasion to the weak and strong arguments among all participants who received the male role prime. A significant effect of argument quality emerged in the expected direction, with male role primed participants being more persuaded by the strong than by the weak argument, $M = 1.42$, $SD = 1.50$ versus $M = 0.30$, $SD = 0.79$, $F(1, 179) = 11.71$, $p = .001$. This pattern of results is consistent with the stereotype for men to be deliberative and intelligent.

To test whether participants exposed to the male role prime also demonstrated a bias toward retaining their initial attitudes, we examined the effect of prime type (male prime vs. control) on overall attitude change. Those primed with the male gender role did not display less overall attitude change

than their control counterparts, $M = 0.87$, $SD = 1.32$ versus $M = 0.95$, $SD = 1.34$, $F(1, 120) = 0.11$, $p = .74$, giving us no evidence for attitudinal bias.

Finally, we examined whether there were differences in argument quality differentiation between male role primed and control participants, although we did not make any initial predictions about this comparison. A 2×2 ANOVA examining persuasion to the weak and strong arguments by those who received the male primes and the control group did not find a significant interaction between argument quality and prime type, $F(1, 120) = 0.07$, $p = .79$. Given that there is a ceiling to how carefully people can, and will, process a one-page argument in a research study, this is not surprising. Moreover, greater argument quality differentiation toward persuasive messages known to produce differentiation under conditions of moderate to high elaboration are not necessarily indicative of more thoughtful message analysis.

General Discussion

Researchers sometimes uncover and report gender differences in persuasion, other times they report no differences (see Wood & Stagner, 1994). When gender differences are found, they have typically been attributed to experimenter bias (e.g., Eagly & Carli, 1981) or to experimental confounds or artifacts. The aim of the present research was to test one additional way that gender differences in persuasion may arise. Drawing on the content of gender stereotypes and the automatic effects of social category activation, we hypothesized that making gender roles cognitively salient would influence women's and men's openness to persuasion in gender-stereotypic ways. We expected gender salience to affect persuasion by biasing the direction of individuals' attitude change and/or by altering the depth with which they process messages.

Because women are stereotyped as influenceable and accommodating, we considered the possibility that female gender-role salience may lead to a bias in persuasion in which individuals demonstrate increased acceptance of all kinds of persuasive messages, including strong and weak ones. We also considered the possibility that making the female gender role salient may activate the stereotype of women as unanalytical, potentially changing the participants' processing of persuasive messages. Individuals primed with the male gender role, on the other hand, might show general resistance to persuasion, consistent with the stereotype that men are unwavering. Or they might show increased argument quality differentiation—the hallmark of careful persuasive message processing and consistent with the stereotype that men are intelligent and rational.

Study 1 revealed that when the female gender role was made salient, women demonstrated weaker attitudes, which tended to be more susceptible to change. Study 2 found that reminders of the female role led women to demonstrate

reduced cognitive processing of persuasive messages. In Study 3, men and women responded to gender-role salience with assimilative behavior; female gender-role primes caused both men and women to process persuasive messages less carefully, and male gender-role primes led both men and women to process messages thoughtfully (Petty & Cacioppo, 1986).

Together, these studies suggest that gender-role salience affects the process by which individuals are persuaded, rather than merely biasing individuals toward accepting or rejecting the position advocated in a persuasive appeal. Activating the female gender role appears to automatically reduce cognitive processing of persuasive messages, consistent with the stereotype that women are unanalytical. We found no evidence that individuals primed with the female gender role were more yielding or persuadable in general. Activating the male gender role, on the other hand, lead participants to show high levels of cognitive processing similar to controls, consistent with the stereotype than men are intelligent and rational. We found no evidence that individuals primed with the male gender role were more generally resistant to influence in the face of persuasive appeals.

Of note, the impact of depth of processing on overall attitude change depends on the quality of arguments to which individuals are exposed (Petty & Wegener, 1999). Reduced processing resulting from female gender-role salience should lead to more attitude change to specious or moderately compelling arguments but should lead to less attitude change to cogent arguments. Thus, the impact of gender on persuasion appears to depend not only on the salience of gender but also on the cogency of the persuasive messages to which people are exposed.

These findings provide a possible account for the wide variability in the observed relation between gender and persuasion within the literature. When women changed their attitudes more than men in past research (assuming the attitude issue and message were unrelated to gender), it may have been because participant gender was salient in the research context, leading women to be more persuaded by moderate or low-quality messages. However, gender salience in research employing high-quality messages should have generated the opposite effect. Our results suggest that under some circumstances—when persuasive messages are especially strong and compelling—gender role activation will render women less responsive to persuasive messages.

Persuasion Versus Agreeableness

The present studies specifically examined how gender relates to persuasion, rather than how gender might relate to agreeability (the tendency to agree with the opinions of others), behavioral conformity (the tendency to comply with social norms), or compliance (a change in overt behavior due to active social influence; e.g., Fabrigar & Norris, 2012). Studies 2 and 3 assessed attitude change in response to a

persuasive message from an immaterial source, rather than from a known person or group. In this way, participants were not influenced to agree with the opinion of another social source (an expression of agreeableness) nor were they influenced to passively follow or actively obey another social source (expressions of conformity and compliance, respectively). Further, because all three studies used anonymous, private surveys, none of the studies should have elicited impression management concerns, which have been found to play an important role in studies of gender and conformity (Eagly, Wood, & Fishbaugh, 1981). All reports of attitude strength and attitude change in the present studies reflected private reports of personal standpoints.

Limitations and Suggestions for Future Research

One direction for future research is to strategically examine the mechanism by which gender-role salience causes gender-stereotypic behavior in the present studies. According to the “active-self” account of prime-to-behavior effects, social category primes can lead to category stereotypic behavior by invoking a biased subset of chronic self-content or by introducing new material into the active self-concept (for a review, see Wheeler, DeMaree, & Petty, 2014). Alternatively, some researchers have proposed that automatic social behavior results from perceivers preparing to interact with, or respond to, primed category members (e.g., Cesario, Plaks, & Higgins, 2006; Jonas & Sassenberg, 2006). A third account for prime-to-behavior effects suggests that a prime’s effects can be produced through the misattribution of prime-related mental content to the target activity, thought, or object at hand (Loersch & Payne, 2011). Each of these accounts has received some empirical support. Determining the conditions under which activation of gender roles sets into motion each of these processes may yield new insights regarding the nature and consequences of gender stereotypes.

A second question for future research is to clarify whether the stereotype-consistent processing we saw in Studies 2 and 3 was due to changes in individuals’ ability or motivation to carefully process persuasive message content. Although the vast majority of participants in our studies did not consciously recognize they were being primed with gender-related words, they may nonetheless have had to contend with intrusive thoughts about incompetence in the female role prime condition. Such thoughts may have occupied the working memory capacity that is needed to process the merits of the strong message and to counter-argue the flaws in the weak one (e.g., Dardenne, Dumont, & Bollier, 2007). Alternatively, or in addition, individuals primed with the female gender role may have lost interest in carefully processing the issues at hand. While the current studies do not enable us to assess which of these explanations hold, they do point us in a fertile direction for future research.

Future research might also investigate the extent to which the strength of one’s own gender identity moderates

the effect of gender salience on the processing of persuasive messages. While recent work has not found that strongly identifying with one’s gender changes responses to same-gender primes, researchers have found that level of gender identification predicted responses to other-gender primes (Hall & Crisp, 2008). When primed with the outgroup gender, individuals with strong gender identities behaved less like the outgroup than those with weaker gender identities (Hall & Crisp, 2008).

Another potential moderator of the effect of gender primes on persuasion might be participants’ other identities that intersect with gender. It is well-known that individuals possess multiple social identities, such as race, sexuality, gender, and class, which intersect to produce unique experiences and stereotypes that are not merely simple or additive (e.g., Cole, 2009; Crenshaw, 1989, 1993; Parent, DeBlaere, & Moradi, 2013; Shields, 2008). For example, the stereotypes associated with manhood and womanhood differ in qualitative ways across racial and ethnic backgrounds (e.g., Ghavami & Peplau, 2013) and sexuality or gender presentation (Herek, 1998; Madson, 2000). Thus, one question for future research is whether own-gender primes have the same effect on the persuasive message processing of Latinas compared to Black women or on gay men compared to heterosexual men, for example. The current research was conducted with participants who varied in their typical age, race/ethnicity, student status, and geographic location across studies. Nonetheless, in all of these studies we found similar effects of gender-role primes on attitudes and persuasion. However, we did not formally compare the effect of own-gender primes on message processing for men and women who vary in their racial identities, for example, which is a direction for future work.

Finally, women tend to possess lower levels of status and power than men in most settings (e.g., Dépret & Fiske, 1993; Eagly, 1987; Lorber, 1998). Research has demonstrated that individuals with low status and power are viewed as more persuadable or yielding than those with greater social power (Eaton et al., 2009). Future research could examine the extent to which gender stereotypes about persuasion and rationality are due to men’s more frequent occupation of high power social roles. In addition, given that gender roles and powerful social roles are intertwined, future research might compare the effects of power on persuasion with the effects of gender on persuasion in various scenarios.

Some research has already shown that social power can affect attitudes by reducing how much power holders elaborate on persuasive messages (Briñol, Petty, Valle, Rucker, & Becerra, 2007). In light of the current research, this appears to present a conundrum. How can the female gender role (which is associated with low levels of power) and high power roles both induce the adoption of a low-thought processing strategy? One possibility to be explored is that high-power individuals only exhibit reduced message processing when dealing with attitude issues of relatively little importance to them. When an attitude issue is personally-important to

individuals, power may operate on attitudes in another way—perhaps by facilitating thoughtful processing.

The current article is not without limitations. First, both studies examining the processing of persuasive information used the same attitude issue: capital punishment. To increase generalizability, future research should expand the types of gender-neutral attitude issues used to examine the effect of gender on persuasion. In addition, while many studies have failed to find an effect of participant gender on attitudes toward the death penalty (e.g., Maggard et al., 2012), some have found slightly more support for the death penalty from men than women (e.g., Applegate, Cullen, & Fisher, 2002). However, this is not a major concern for the current study for several reasons. First, men's and women's attitudes toward capital punishment are not "opposite" (Applegate et al., 2002, p. 97); both groups tend to be in favor of the death penalty (Applegate et al., 2002). Second, we assessed attitude change in our studies, therefore taking individual's initial attitudes toward the death penalty into account. Third, there was not a main effect of gender on initial attitudes toward the death penalty in Study 3—the study in which we included women and men participants.

Practice Implications

Our findings suggest that gender-role salience can affect participants' processing of persuasive messages. Our first recommendation is to be wary of inadvertent gender salience when distributing persuasive information in research or practice. To avoid gender-role salience and its cascading effects on persuasion, information on participant gender and related social roles should be collected and discussed at the end of sessions, consistent with standing recommendations on survey and questionnaire design (e.g., Blair, Czaja, & Blair, 2014). Visual reminders of gender roles should be removed from the environment. If reminders of gender roles cannot be eliminated, then researchers and practitioners may want to take steps to counteract the potential for female gender-role salience to cause reduced message processing. One way to do this might be to emphasize the personal importance of the issues at hand, which should lead to increased motivation to carefully process the message (Eaton & Visser, 2008), and to give participants sufficient time and opportunity to engage in deliberation. In the event that researchers or practitioners detect unexpected gender differences in persuasion on issues that are not gendered, we recommend examining whether gender might have been salient during the persuasion process and re-examining the strength of the arguments to which participants were exposed, as the effect of gender-role salience on attitude change is moderated by message quality.

Conclusions

Prescriptive and descriptive gender stereotypes about the traits and attributes of men and women have remained largely

intact through several highly dynamic decades in the United States. The stability of these norms is one reason for the stability of gender-typed behaviors, traits, and attitudes in the United States. The present work suggests the stereotype that women are less competent and rational than men can affect the processing of persuasive messages when gender is salient in the persuasive context. When the female gender role is salient, the stereotype that women are unanalytical can harm individuals' ability and/or motivation to carefully process persuasive messages. Moving forward, we urge researchers to be wary of inadvertent gender salience in the research context, as reminders of any social identity, role, or category stereotypically associated with high or low levels of thoughtfulness or persuadability may automatically influence cognitive processing and attitude strength.

Appendix

Study 1 Priming Words

Female prime words

aunt, doll, dress, earring, flower, girl, grandma, her, jewelry, lady, lipstick, miss, mother, pink, purse, she, sister, skirt, sweet, and woman.

Control prime words

place, banana, salt, water, moat, pen, stapler, bag, table, jar, clock, oxygen, carpet, glue, umbrella, it, pancake, dog, thumb, and bit.

Neutral words used in 10 practice trials

before, example, called, however, said, remember, animal, sentences, thought, about

Study 2 Priming Sentence Unscrambles

Control prime sentences

- (1) faster water made the salt the boil.
- (2) table kept the was stapler on the.
- (3) banana breakfast had pancakes for they.
- (4) the table onto the clock fell and carpet off the.

Female prime sentences

- (1) flower her the mother girl a gave.
- (2) was of piece favorite her the necklace jewelry.
- (3) her purse the kept her woman in lipstick.
- (4) doll her sister a got birthday on her.

Study 3 Additional Priming Sentence Unscrambles

Male prime sentences

- (1) gave boy his football father a the.
- (2) tool the red favorite his was hammer.
- (3) pocket cigar in man his kept a the.
- (4) birthday for brother tie his his got a.

Study 2 and 3 Persuasive Messages

Strong message

Some people support the death penalty as a deterrent to crime, especially murder. But in fact there is absolutely no evidence that the death penalty deters crime. States that have death penalty laws do not have lower murder rates than states without such laws. And murder rates do not go down when states start using the death penalty. The reason the death penalty has no effect on murder rates is because, most often, people commit murder in the heat of passion, or under the influence of alcohol or drugs, and do not think about the possible consequences of their acts.

Others suggest that murderers deserve to die. But in our society, we do not use the “eye for an eye” rule—doing to criminals what they have done to their victims. The punishment for rape cannot be rape. If a drunk driver hits an innocent victim, we do not punish the driver by running him over with a car. When the government puts people to death, it stoops to the level of the criminal and ignores the fundamental value of human life. Convicted murderers should be sentenced to prison for life, with no chance of parole.

The death penalty is also applied unfairly. Several recent studies show that the death penalty discriminates against the poor and against minorities. If a White person and a Black person commit the exact same crime, the Black defendant is much more likely to be sentenced to death, especially if the victim is White. Similarly, poor people are much more likely to be sentenced to death than people who can afford the high costs of private investigators and skilled criminal lawyers. Incredibly, over 90% of people charged with capital crimes are impoverished and forced to rely on inexperienced, underpaid court-appointed attorneys.

Our legal system is not perfect, and mistakes do happen. A study published recently in the *Stanford Law Review* showed that there have been 350 cases where people have been sentenced to death, but it was later proven that they had not committed the crime. Some of those people had already been put to death before the error was discovered. Our legal system will never be perfect because it is run by people, and people do make mistakes. If we use the death penalty, some innocent people are bound to be put to death.

In conclusion, the death penalty does nothing to reduce crime. It is unfair—used most often against minorities and people who can’t afford expensive lawyers. And there is no

way to avoid mistakes, so innocent people will sometimes be put to death. People who commit crimes must be punished, but the death penalty has no place in our society.

Weak message

Some people support the death penalty because they believe it makes criminals think twice before committing a serious crime. But this isn’t necessarily the case. A punishment will only cause people to think twice if it’s applied swiftly and consistently. That isn’t true of the death penalty. Only about 1% of all murders result in a death sentence, and there are often long delays in carrying out the sentence. Since few criminals are sentenced to death and the process can drag on for years, having the death penalty won’t always cause criminals to think twice before committing a crime.

Other people favor the death penalty because they don’t think taxpayers should pay to feed, clothe, and house people who have been convicted of committing brutal murders. But this logic doesn’t hold up. It’s true that life in prison is very expensive, and taxpayers are stuck paying the bill. But it is also true that murder trials take far longer when the death penalty is involved. There are extra appeals and more paperwork. Thus, the death penalty wastes the time and energy of the lawyers, members of the jury, and other personnel who are involved in these cases.

Politicians spend a lot of time debating the death penalty, and this is time that could be spent on more productive tasks. The time and energy that goes into debating the death penalty takes attention away from the kinds of social changes that might reduce the frequency of crime. By supporting the death penalty, politicians are simply hiding their own failure to find anti-crime policies that will really work. The death penalty should be abolished, so that politicians can turn their attention to other matters.

Furthermore, the death penalty is “cruel and unusual” punishment. These days, people are most often put to death by receiving a shot, like the ones your doctor might give you. Although this method is considered less cruel and is less expensive than other methods, there can still be problems. For example, if there is not enough poison in the shot, people might not die immediately. People who have watched convicted killers being put to death have said that it is sometimes a painful, degrading process. It should therefore be abolished.

In conclusion, the death penalty is slow, and it is inefficient. Furthermore, the debate over the death penalty detracts attention from other important issues. And occasionally, things go wrong and convicted murderers suffer painful executions. People who commit crimes must be punished, but the death penalty has no place in our society.

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