When Does Gender Count? Further Insights Into Gender Schematic Processing of Female Candidates' Political Advertisements

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In this study we explored viewers' responses to advertising by female political candidates. Gender schema theory provided the basis for developing a better understanding of the circumstances when voters evaluate female candidates and how cognitive representations of what women are like influence viewer responses. Results showed general support for the predictions derived from gender schema theory. That is, participants did seem to rely on gender schema in making judgments, a form of inference making known as "default processing," when information was absent. Results also indicated that participants relied more on gender schematic processing when the advertisement elicited positive emotions and less on gender schematic processing when exposed to an attack ad. For comparison, viewers' responses to male candidates' political advertising were also examined. We conclude with a discussion of the implications of these findings for political campaigns.

KEY WORDS: political advertising; gender schema; schematic processing.

A better understanding is needed of the circumstances when schematic, as opposed to piecemeal, processing is likely to be adopted so that researchers and campaign strategists will be able to predict the impact of gender schematic processing in election contexts. In general terms, schemas are utilized to avoid the need for exhaustive processing of new information (Fiske & Taylor, 1991; Markus & Zajonc, 1985). Schemas enhance efficiency and enable people to process information more rapidly and with less effort.

Two circumstances in particular are known to increase the likelihood of schematic processing. The first is when information is missing or ambiguous, and category-based knowledge can help to "fill in the gaps." For example, when confronted with a new challenger who is a female candidate, voters may use category-based knowledge of women, and, for instance, expect her to be compassionate toward disadvantaged and minority populations. As specific information emerges about the candidate as an individual, voters become less reliant on category-based generalizations. Moreover, if voters have fewer gaps in their political knowledge in the first place, that is, if voters possess a high level of political expertise, they may never need to rely on a gender schema to provide the basis for inferences. Instead, they would show greater insight into the differences between candidates, differences based on something other than gender, which enable them to assess the new challenger. In this way, the amount of information accessible to the voter is crucial in determining the extent to which schematic processing occurs.

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The voters' emotional state constitutes the second set of circumstances that influence the likelihood of schematic processing. When an individual is experiencing a positive mood and/or emotion, he/she is more likely to ignore details and simplify decision-making by relying on schema-based information (e.g., Bless, Clore, Schwarz, Golisano, & Rabe, 1996; Bless, Schwarz, & Wieland, 1996). For example, initially calm protesters swept up in the exhilaration of a political rally can "forget" the details that fuel their normal, balanced decision making, and may find themselves adopting a stereotypical protester's stance.

Circumstances that enhance the likelihood of schematic processing are of special interest to campaign strategists when the circumstances are subject to their control. The content of an advertisement can be controlled to include or omit information, and, thus, from a practical as well as a theoretical perspective, it becomes important to investigate whether missing content reduces or enhances the likelihood of schematic processing. Advertisements can also be constructed to move voters emotionally, in either positive or negative ways. The essential question remains: will advertising-elicited emotion encourage or discourage schematic processing?

The purpose of the present study, therefore, is to investigate the relationship between political advertising content (with respect to the amount of information available and its emotional valence) and gender schematic processing.

Gender Schematic Processing in the Political Arena

Female Candidates and Political Advertising

Political advertising has become particularly important for female candidates. Content analyses of news coverage of male and female candidates demonstrate that news stories tend to reflect gender-based assumptions (Kahn, 1994; Kahn & Goldenberg, 1991). Women candidates usually receive coverage that portrays them as a relatively risky choice, and stories about female candidates are more likely to be in a negative vein. Given that a high percentage of female candidates are challengers, they also risk attracting less media attention. As a result, political advertising has become one of the most important campaign vehicles for women (Benze & Declercq, 1985; Chang & Hitchon, 1997).

Gender-based associations of particular issues are one aspect of viewer perceptions that candidates need to manage. By "women's issues," we refer to those issues with which voters believe female candidates are both more concerned and more capable of handling—including the environment, childcare, and concerns of the elderly or ethnic minorities (e.g., Rosenwasser, Rogers, Fling, Silvers-Pickens, & Butemeyer, 1987). On the other hand, "men's issues" are those that voters believe male candidates are more capable of handling—including national defense, crime, the economy, and agriculture (e.g., Sapiro, 1981–82).

One problem facing female candidates is that "women's issues" are often considered less important than "men's issues" (Rosenwasser et al., 1987; Rosenwasser & Dean, 1989). For example, political offices such as the Presidency are perceived primarily in terms of men's issues (Rosenwasser & Seale, 1988). With an increase in the number of women participating in elections and the increasing importance of political advertising, campaign strategists who work for female candidates often run into a dilemma: should they package a female candidate as a politician who possess a natural fit with "women's issues" or should they emphasize that she is capable of handling "men's issues"?

Increasingly, female candidates are pushing the envelope, stressing their "toughness" (i.e. "masculinity") and campaigning on men's issues (Huddy & Terkildsen, 1993; Kahn, 1993, 1994, 1996). The risk for women in adopting such counter-gender behavior is violating the voters' expectations and sense of what is right (Kahn, 1996). In particular, the debate persists regarding whether women should "go negative" (Hitchon, Chang, & Harris, 1997), given that attack ads are usually regarded as an extreme illustration of men's aggression (Johnston & White, 1994).

Research supports the fear that voters' stereotypical beliefs of what a female candidate is supposed to be like may interfere with their processing of an advertisement's message. Preliminary evidence is provided by our (Hitchon & Chang, 1995) earlier study of political advertising in which participants recalled more mentions of family and more about visual appearance when the candidate was a woman than when the candidate was a man. More accurate recall of the names of male than female candidates, and better recall of men's campaign activities than women's suggest that a candidate's identity as a politician was more strongly tied to the masculine gender. What remains unclear is the role

of missing or ambiguous information in provoking such gender-based processing.

Missing Information and Schematic Processing

The internal perceptual or cognitive structure with which individuals receive and categorize information on a topic was termed a "schema" by Neisser (1976). A schema represents organized knowledge about the world (Fiske & Taylor, 1991; Taylor & Crocker, 1981), and its structure guides our perceptions (Bem, 1983). A schema is hypothesized to have a dual nature: to be at once both a structure and a process (Markus & Sentis, 1982; Markus & Wurf, 1987; Neisser, 1976). It is the internal representation of a category. In fact, Rosch (1973) referred to internal structures directly as "categories."

Although terminology may differ, there remains considerable agreement among researchers about the basic concept. Hastie (1984) suggested that people have many schemas stored in long-term memory, and argued that when a schema is activated by a relevant event or a cue, it will encode the incoming information in an orderly fashion, based on the structure of the schema. Relationships among the different elements of the experienced event are represented by the structure of the schema; in other words, perceivers tend to fill in the missing information of the experience according to the elements of the schema stored in their minds.

Generally speaking, a schema is functional; it provides cognitive efficiency and economy. Given people's limited cognitive capacity, it is important for our brains to streamline the mass of incoming information into a manageable set of data. Existing cognitive representations mean that individuals do not need to process new information in a vacuum. The incoming information or cue elicits the available and well-developed structure in memory, with the acting structure, in turn, facilitating the process by guiding attention to consistent information, accelerating the interpretation, and promoting inference-making and retention in schema-relevant terms (e.g., Fiske, 1984; Markus & Zajonc, 1985; Martin & Halverson, 1981).

One important function served by schemas is to promote inferences that "fill in a gap"—again, a process known as "default processing" (Taylor & Crocker, 1981). Default processing means that when information is missing or ambiguous, the perceiver is likely to make inferences based on information already in his or her mental structures. Guesses based on schematic knowledge are thus termed "default options" (Minsky, 1975). For example, without a clear memory of what a professional woman wore, a person might infer that she wore a suit, thus filling in the gap in a particular instance of recall with an inference based on general knowledge of how professional women dress. This inference may even be adopted as actual recall, thus producing an intrusion error. On other occasions, when an experience is familiar and there is too much information to process, an individual need not attend to all the details because stored cognitive structures can guide expectations.

Several studies provide empirical support for default processing as an important concept related to schema theory (e.g., Bower, Black, & Turner, 1979; Cantor & Mischel, 1977; Spiro, 1977). For example, Cantor and Mischel (1977) found that participants who formed impressions of people described as prototypical personalities (e.g., extravert, introvert) later erroneously recalled those people as exhibiting behaviors consistent with their personality type, although those behaviors had not been described.

Default processing has also been observed in the context of events, in addition to impression formation. Bower et al. (1979) found that participants' recall and recognition of events corresponded well with their event schema, or scripts. In their studies, participants were shown stories with missing parts. After exposure, participants were asked to recall what they had read in the stories. Their recall showed that an underlying script about that category of event led them to fill in the gaps of missing information. They mistakenly "recalled" information that was not in the stories but could be inferred from an internal knowledge structure of that kind of event. The same researchers conducted another similar study in which they measured participants' story component recognition (Bower et al., 1979). Results showed that false alarms occurred more than 50% of the time after a delay of 20 min. In other words, more than one-half of the time, participants inferred occurrences based upon their schema and mistakenly "remembered" them as having been explicitly stated in the stories. These studies provide strong evidence for the explanatory value of default processing.

Even though schema-based processing is largely functional, sometimes it is the cause of inferential errors. According to Nisbett and Ross (1980), people tend to overutilize schema-based inferential strategies and often fail to rely fully on formal and logical strategies. Other researchers have identified types of biases that may occur when individuals make

schema-based inferences (Markus & Zajonc, 1985; Taylor & Crocker, 1981). For example, Taylor and Crocker (1981) suggested that errors may result from using the wrong schema, employing a correct schema too enthusiastically (as described above), or overestimating relationships between two categories. To sum up, when encountering a new stimulus, if perceivers try to match it with a schema, then the schema will be activated to fill in default information, thereby causing inferential errors.

Schematic Processing in the Political World

The vast majority of people find political information complicated and difficult to process. Schemas are necessary to facilitate the processing and retention of information about candidates, policies, and institutions. The processing of political information is, thus, quite selective. When people are faced with information regarding political candidates, schemas (such as a partisan schema and an incumbent schema) have been shown to be used by voters to help them form perceptions and evaluations of those candidates (Lodge & Hamill, 1986; Rahn, 1993). The selectivity is determined by previously stored knowledge structures about the political world.

The political environment of campaigns often contains cues that guide voters in making sense of candidates and their messages (Lau, 1984). These cues enable voters to identify existing knowledge structures that can help them to encode the candidate's behavior, fill in missing information, form inferences about what the candidate might be like, and generate evaluations (Conover & Feldman, 1989). It is important for candidates who wish to communicate effectively with voters to provide cues that point to useful knowledge structures.

A unique feature in campaign contexts is that voting involves making a comparative evaluation of more than one candidate, a task that demands more cognitive capacity than a single judgment does (Riggle, Ottati, Wyer, Kuklinski, & Schwarz, 1992). Bombarded with all kinds of campaign information, voters are unable to evaluate each element of a candidate. They need basic knowledge structures to help them to select and encode information about candidates. These basic structures facilitate viewers' processing of campaign messages either by providing a guide for encoding, or by working as a basis for inference making when only limited information is available. In a sense, this basic structure enables voters to reach a decision in a more efficient way.

Gender Schematic Processing in the Political World

A gender schema is the mental representation of the category of traits, attitudes, and behaviors that are traditionally associated with men or women (Martin & Halverson, 1981). Gender schemas influence the processing of information just as other schemas do. For example, Stangor (1988) examined the influence of gender schemas on recognition. Participants were shown descriptions of typically feminine or masculine behaviors exhibited by men or women. They were then given a recognition test. For some gendered behaviors, the gender of the actor was atypical. The results showed that participants were more likely to "recognize" behaviors erroneously when they were gender-consistent.

Like schemas in general, gender schemas affect the way we make inferences, predictions, and interpretations. Especially when information is deficient or ambiguous, a gender schema allows the perceiver to supply what is missing by relying on information already contained in the gender schema. Expectations about what is traditionally masculine or feminine play into our judgments about men and women, particularly if we know relatively little about them as individuals. In one study, participants listened to the tape recording of a six-person group discussion with the picture of each speaker projected on the screen when that person delivered his/her points (Taylor & Falcone, 1982). Participants were then asked to rate those speakers. Regardless of what points the male speakers made, they were rated more favorably than the female speakers with respect to their competency and persuasiveness.

Most of the electorate receives incomplete, even sketchy, information about politicians. What's more, they cannot have full confidence in the accuracy of the information they do receive. Specifically, the candidate may be a new challenger on the scene, or the voter may be a political novice or someone who avoids exposure to political communication. Because gender is a powerful schema, it is likely to be accessed when voters compare male and female candidates.

As argued earlier, default processing is most likely to occur when information is absent, ambiguous, or overwhelmingly complex. In a political campaign, information about a candidate is often absent

with respect to details about character, political stance, record, and so forth. Advertisements, as a form of communication, are inherently parsimonious and encourage gender schematic processing to occur.

In the present study, participants were exposed to advertising content that promoted a candidate by strengthening the candidate's issue capability along one dimension only: men's issues or women's issues. Therefore, it is suggested that, when participants are exposed to advertisements that promote a candidate's women's issues competency, they will rely on the advertising content to make judgments about that candidate's women's issues competency; yet, they will rely on the candidate's gender to make inferences about that candidate's men's issues competency, which was not addressed in the advertisements. Similarly, when participants are exposed to advertisements that promote a candidate's men's issues competency, they will rely on advertising content to make judgments about that candidate's men's issues competency; yet, they will rely on the candidate's gender to make inferences about that candidate's women's issues competency, which was not addressed in the advertisements.

Hypothesis 1: Candidate gender influences assessments of men's (women's) issues competency only in promotional advertisements that do not contain men's (women's) issues information.

Effects of Emotional Political Advertising

Promotional Versus Attack Advertising

A predominant method of classifying political advertisements is to divide them into positive or negative groupings based on whether they promote the candidate or attack his/her opponents (Newhagen & Reeves, 1991; Shapiro & Rieger, 1992; Tinkham & Weaver-Lariscy, 1993). This general categorization is reflected in Kaid and Johnston's description (Kaid & Johnston, 1991) of positive and negative advertisements: "Negative ads and positive ads are generally distinguished by their relative emphasis on the sponsoring candidate and his or her opponent. Negative ads focus on criticism of the opponent, while positive ads focus on good characteristics, accomplishment, or issue positions of the sponsoring candidate" (p. 53).

Most important, positive advertising and negative advertising also differ from each other in

terms of the emotions they tend to evoke (Kaid & Johnston, 1991). Promotional advertising that depicts smiling candidates shaking hands with supporters is likely to evoke positive feelings, whereas attack advertising that denigrates the opponents is likely to induce negative feelings.

Affective States and Processing Strategies

It has long been documented in social psychology that a person's emotions may affect the way he or she thinks (see Schwarz, 1990; Schwarz & Bless, 1991; Schwarz, Bless, & Bohner, 1991, for reviews). Of particular interest to this research is whether feeling good or bad may either impair or facilitate a person's information processing in regard to attention to details. General findings indicate that when people are in a positive mood, they are less likely to pay attention to details and tend to rely on heuristics (e.g., Bless, Bohner, Schhwarz, & Strack, 1990). In clear contrast, when people are in a negative mood, they are more likely to elaborate on details and engage in analytical processing.

The reduced message elaboration induced by positive affective states lead individuals to rely on schemas. Bless et al. (1996) showed that happy participants' judgments are influenced by category information, whereas sad participants' judgments are affected by piecemeal information but not category information. These findings suggest that a positive affective state increases a reliance on schema-based processing. Bless et al. (1996) argued that a positive affective state signals that the current situation is safe, and thus encourages message perceivers to believe that reliance on general knowledge structures or schemas is sufficient. In clear contrast, a negative affective state suggests that the current situation is problematic, and encourages message perceivers to attend to details and avoid schema-based processing.

One line of research explores the impact of affective states on information processing within the theoretical framework of the dual-process models (Chaiken, 1980; Petty & Cacioppo, 1979). This body of work supports the idea that happy participants discriminate less between strong and weak arguments than do neutral participants (e.g., Bless et al., 1990; Mackie & Worth, 1989; Worth & Mackie, 1987). Similarly, Bless et al. (1990) argued that sad participants are influenced by a

counter-attitudinal persuasive message only if the arguments delivered are strong, whereas happy participants are equally influenced by strong and weak arguments. Kuykendall and Keating (1990) also showed that participants generally engage in systematic processing while in negative moods as opposed to peripheral processing while in positive moods.

Research on stereotypes also provides evidence that mood states can determine whether category-based processing occurs. Studies of stereotypes demonstrate that happy participants' judgments are more affected by stereotypes than are those of neutral participants (Bodenhausen, Kramer, & Susser, 1994). This indicates that when participants are in a positive emotional state, they are more likely to engage in schematic processing. On the other hand, Edwards and Weary (1993) observed that depressed participants, as opposed to nondepressed participants, are more likely to engage in piecemeal processing when forming an impression of the target stimulus.

When viewers are in a negative mood, they tend to elaborate more on advertising messages and rely less on schematic cues. Thus we proposed that attack advertisements would generate more message elaboration than would promotional advertisements.

Hypothesis 2: Individuals generate more advertising elaborations when exposed to attack advertising than to promotional advertising.

Due to enhanced message elaboration, participants who are exposed to attack ads will not rely on gender as a cue to evaluate a candidate's men's issues competency regardless of the availability of men's issues competency in the advertisements. Similarly, participants who are exposed to attack ads will not rely on gender as a cue to evaluate a candidate's women's issues competency regardless of the availability of women's issues competency in the advertisements.

Hypothesis 3: A significant candidate gender by advertising emotion interaction will emerge; candidate gender will influence assessments of men's (women's) issues competency in promotional advertising but not in attack advertising.

METHOD

Design

An experimental study was designed to test the hypotheses stated above. The mixed experimental design comprised one within-subject factor, candidate gender (2 levels: man or woman), and two between-subject factors, advertising content (2 levels: women's issues or men's issues) and advertising emotion (2 levels: negative/attack or positive/promotional).

Participants were assigned randomly to one of four different between-subject conditions (advertising content × advertising emotion). In each condition, they were exposed to an advertisement for or against a male candidate and an advertisement for or against a female candidate that were of the same type (e.g., both negative, both with men's issues). The order of the two advertisements to which participants were exposed was rotated to counterbalance any primacy or recency effects. No significant order effects emerged in the ANOVA, therefore responses of participants who were exposed to advertisements presented in different orders were collapsed together in the following analyses.

In order to vary the issues mentioned, two versions of each advertisement for each condition were used. Each participant was exposed to only one version of the advertisement. The results indicated that there were no significant effects of advertising version nor a significant advertising version by candidate gender interaction; therefore, the responses of the participants who were exposed to different versions of advertisements were collapsed together in the following analyses. To reduce interference from the activation of other schemas, information regarding a candidate's party alignment and incumbent status was not made available.

Participants

One hundred and twelve participants were recruited from undergraduate courses in mass communications at a mid-western university in the U.S. Seventy-six percent of the participants were female. Analyses for effects by gender of participants revealed no significant findings. The percentages of participants who indicated that they were strong democrats, weak democrats, or independent democrats were 7.3%, 22.9%, and 23.9%, respectively, whereas the percentages of participants who

indicated that they were strong republicans, weak republicans, or independent republicans were 3.7%, 9.2%, and 15.6%, respectively. Only 17.4% of participants indicated that they were independents.

Stimuli

Print advertisements were created with an editing software program. Pictures that represented fictitious candidates and their endorsers were included. A professional news writer helped to write the advertising copy. Picture size, number of words, and layout were controlled across treatment conditions. Advertisements were manipulated to vary on the following variables.

Candidate Gender

Participants could distinguish whether an advertisement was for a male or a female candidate by salient cues, such as the name of the candidate and the picture of the candidate. In each case, the picture measured 1 inch by 1 inch and was positioned at the top of the advertisement. As participants in all conditions were exposed to one advertisement for a male candidate and one advertisement for a female candidate, candidate gender was a within-subject factor.

Advertising Emotion: Positive/Promotional Versus Negative/Attack Advertisements

A promotional advertisement for a candidate was sponsored by his/her supporters, and it only addressed the strengths of the candidate, without mentioning anything about the candidate's opponent. Promotional advertisements also included positive testimony from one or two of the candidate's supporters and a picture of the supporters. The attack ad for a candidate (the attacker) was sponsored by supporters of the candidate (the attacker). However, the attack ad usually criticized the wrongdoing or the weaknesses of the attacked opponent without mentioning anything about the attacker. The attack ad also included a complaint from voters about the attacked candidate and a picture of the voters who testified against the candidate.

As a manipulation check, participants were asked to rate how the advertisement made them feel. Participants rated how the advertisement they read made them feel on a 23-item 7-point bipolar scale. Factor analysis with varimax rotation produced two factors with eigenvalues of more than 1.0. Factor 1, with an eigenvalue of 10.57, was labeled *Positive Feelings* and included: cheerful/not cheerful; contented/not contented; elated/not elated; excited/not excited; happy/not happy; hopeful/not hopeful; inspiring/not inspiring; pleased/not pleased; satisfied/not satisfied; upbeat/not upbeat; warmhearted/not warmhearted. Factor 2, with an eigenvalue of 5.02, was labeled *Negative Feelings* and included: angry/not angry; annoyed/not annoyed; anxious/not anxious; bad/not bad; depressed/not depressed; disgusted/not disgusted; fearful/not fearful; fed-up/not fed-up; offended/not offended; sad/not sad; skeptical/not skeptical; sluggish/not sluggish. Cronbach's reliability alphas for the two subscales were deemed satisfactory at .92.

As expected, the promotional and attack ads in this study evoked different feelings. Specifically, promotional advertisements elicited significantly more positive feelings, $F(1, 111) = 67.36$, $p < .01$ ($M_{promote} = 3.57$, $M_{attack} = 2.48$), whereas attack ads induced significantly more negative feelings, $F(1, 111) = 103.85$, $p < .01$ ($M_{promote} = 2.86$, $M_{attack} = 4.51$). Therefore, the manipulation was successful.

Advertising Content: Women's Issues or Men's Issues

There are some issues that are believed to be of interest to women and others believed to be of interest to men. For example, female candidates are believed to be more capable of handling the following issues: education (Leeper, 1991; Rosenwasser et al., 1987; Sapiro, 1981–82), the needs of minorities (Rosenwasser et al., 1987), the needs of the disabled and the handicapped (Rosenwasser et al., 1987), health care (Leeper, 1991; Sapiro, 1981–82), poverty (Leeper, 1991), and the needs of the elderly (Rosenwasser et al., 1987). Male candidates are believed to be more capable of handling the following issues: the military and national defense (Rosenwasser et al., 1987; Sapiro, 1981–82), agriculture (Sapiro, 1981–82), and terrorism (Rosenwasser et al., 1987). In addition, in the U.S. women are believed to be more liberal and Democratic than men, whereas men are considered more conservative and Republican than women (Huddy & Terkildsen, 1993). In general, women may be believed to be more capable of handling liberal issues, such as the

environment, whereas men may be perceived as more capable of handling conservative issues, such as the economy. Based on these findings in previous research, four issues were selected to represent "women's issues": education, children, health care, and the environment. The four issues selected to represent "men's issues" were: national security, agriculture, crime, and the economy.

Procedures

After being seated, participants were told that the study involved research about how different layouts of print advertisements impact viewers' information processing. They were then asked to read a political advertisement for either a female or a male candidate. Afterward they read an advertisement for the first candidate's opponent, who was a member of the other sex.

Participants were first asked to provide their cognitive responses, and then asked their opinions of the candidate's ability in handling eight different issues (education, environment, health insurance, child care, crime, national defense, economy, and agriculture). They then rated how the first advertisement made them feel on a 23-item bipolar scale. Participants next responded to the same questions with regard to the second candidate.

Dependent Measures

Issue Competency

Participants were asked to assess on a 7-point bipolar scale (*not capable at all/very capable*) how capable each candidate was in handling the following eight issues: education, health care, environment, children's rights, agriculture, economy, national security, and crime. The reliability alpha for the issue capability scale was assessed as satisfactory at .78. Factor analysis with varimax rotation of the items in the issue competency scale extracted two factors. Factor 1, with an eigenvalue of 3.20, was labeled *Women's Issues Competency*, and it included: children's issues, education, the environment, and health care. This factor corresponded very well to our predictions for women's issues. Factor 2, with an eigenvalue of 1.55, was labeled *Men's Issues Competency*, and it included: the economy, agriculture, and national security. This factor clearly corresponded to men's issues, despite the surprising finding that crime elicited split loadings on both factors. Thus, crime

was dropped from future analyses. The entire issue competency scale was broken down into two subscales: *Women's Issues Competency* and *Men's Issues Competency*. Participants' ratings on the two subscales were summed and then averaged to represent *Women's Issues Competency* and *Men's Issues Competency*. The reliability assessments for the two subscales were .79 and .73, respectively.

Cognitive Responses

To capture the extent of participants' elaborations on advertising messages, they were asked to provide their thoughts. Two coders who were not aware of the research purposes coded their responses. Coding procedures recommended by Kolbe and Burnett (1991) were employed to improve the objectivity of the coding. The primary coder coded all of the responses, and the second coder coded 36% of the responses. Krippendorff's alpha (Krippendorff, 1980) was employed to assess intercoder reliability. The Krippendorff's alpha was estimated at .88, which was deemed satisfactory. The total number of advertising-evoked cognitive responses, regardless of their valence, was used to indicate the extent of message elaboration.

RESULTS

Hypothesis 1 suggests that candidate gender influences assessments of men's/women's issues competency only in advertisements that do not contain men's/women's issues information. In other words, participants will rate a candidate's men's issues competency based on his/her gender when no information about his/her men's issues competency is provided in the advertisements, but they will be less likely to rate a candidate's men's issues competency based on his/her gender when information about his/her men's issues competency is provided in the advertisement. Similarly, participants will rate a candidate's women's issues competency based on his/her gender when no information about his/her women's issues competency is provided in the advertisements, but they will be less likely to rate a candidate's women's issues competency based on his/her gender when information about his/her women's issues competency is provided in the advertisements.

Prior to testing this hypothesis with an analysis of simple effects, an ANOVA was conducted to verify that perceptions of issue competency followed gender-based expectations. In other words,

participants were expected to rate male candidates more positively than female candidates on their capacity to deal with men's issues. When men's issues (agriculture, national security, and the economy) were examined, male candidates were rated as significantly more capable than female candidates, $F(1, 111) = 16.27$, $p < .01$ ($M_{female} = 3.78$, $M_{male} = 4.14$). By contrast, when women's issues (education, health care, environment, and children) were examined, female candidates were rated as significantly more capable than male candidates, $F(1, 111) = 8.36$, $p < .01$ ($M_{female} = 4.03$, $M_{male} = 3.62$). It is important to note that when all of the issues were collapsed together, female candidates did not differ from male candidates in terms of their ability to handle issues *per se*, $F(1, 111) = .42$, $p = .52$ ($M_{female} = 3.92$, $M_{male} = 3.86$). In other words, analyses that fail to take type of issues into account may fail to detect consistent differences in participants' perceptions of candidates of different genders.

To test Hypothesis 1, analyses of simple effects were conducted for promotional advertisements with men's issues content and promotional advertisements with women's issues content. When promotional advertisements with women's issues content were examined, candidate gender had no impact on participants' assessment of candidates' women's issues competency, $F(1, 27) = 3.13$, $p = .09$ ($M_{female} = 5.23$, $M_{male} = 4.91$), but candidate gender had a significant impact on their assessment of candidates' men's issues competency, which was not discussed in the advertisements with women's issues content, $F(1, 25) = 11.07$, $p < .01$ ($M_{female} = 3.14$, $M_{male} = 3.83$). Similarly, when a candidate promoted his/her strengths on men's issues competency, candidate gender had no impact on participants' assessment of candidates' men's issues competency, $F(1, 26) = 1.16$, $p = .25$ ($M_{female} = 4.57$, $M_{male} = 5.04$), but candidate gender had a significant impact on their assessment of candidates' women's issues competency, which was not discussed in the advertisements with men's issues content, $F(1, 26) = 12.37$, $p < .01$ ($M_{female} = 4.49$, $M_{male} = 3.72$). Therefore, Hypothesis 1 was supported.

Hypothesis 2 argued that individuals generate more advertising elaborations when they are exposed to attack ads than when they are exposed to promotional advertisements. A repeated measures ANOVA indicated that attack ads generated more cognitive responses regarding the advertisement than did promotional advertisements, $F(1, 111) = 6.71$, $p = .01$ ($M_{attack} = 2.67$, $M_{promotional} = 1.42$). Therefore, Hypothesis 2 was supported.

To test Hypothesis 3, we drew a comparison between the effects of attack ads and those of promotional advertisements. As expected, a repeated measures MANOVA indicated that the interaction between advertising emotion and candidate gender on issues competency (men's issues competency and women's issues competency) was significant, $F = 3.20$, $p = .05$.

When men's issues competency was concerned, the interaction between advertising emotion and candidate gender approached the significant level, $F(1, 111) = 3.28$, $p = .07$. Further contrast analyses indicated that candidate gender affected men's issues competency in promotional advertisements, $F(1, 55) = 8.57$, $p = .01$ ($M_{male} = 4.50$, $M_{female} = 3.84$), but not in attack ads, $F(1, 55) = .34$, $p = .56$ ($M_{male} = 3.55$, $M_{female} = 3.41$), which was consistent with expectations. When women's issues competency was concerned, even though the interaction between advertising emotion and candidate gender was not significant, $F(1, 111) = 2.35$, $p = .13$, contrast analyses demonstrated findings that were consistent with expectations, which indicates that candidate gender generated significant impact on women's issues competency in promotional advertisements, $F(1, 55) = 11.97$, $p = .01$ ($M_{male} = 4.42$, $M_{female} = 4.92$), but not in attack ads, $F(1, 55) = 1.93$, $p = .17$ ($M_{male} = 3.14$, $M_{female} = 3.37$). Therefore, Hypothesis 3 received considerable support.

DISCUSSION

As expected, candidate gender had a significant impact on how participants evaluated a candidate's issue competency. As past research demonstrates (e.g., Leeper, 1991; Sapiro, 1981–82), people seem to associate some issues (e.g., education, welfare) with female candidates and others with male candidates (e.g., defense, agriculture). The present study extends past research by demonstrating the impact of gender bias on the processing of political advertising. Most noteworthy is the fact that this bias only seems to operate in the absence of specific information about issue competency in promotional advertising. When specific statements about a candidate's strengths on issues were provided as a basis for judgment, participants relied on that information. On the other hand, when advertisements did not provide any relevant information, participants used candidate gender as a cue. This is consistent with past findings that suggest that default processing is most likely to operate in an ambiguous situation, a

situation where relevant information for making precise judgments is missing.

It is important then to provide enough information for voters in a campaign context. Female candidates who would like to set an agenda that includes men's issues should emphasize their concern about these issues and show their competency in campaign vehicles, such as advertising, direct-mail brochures, and so forth. Otherwise, voters will probably assume that they are not as capable of handling these issues as their male counterparts are. Similarly, male candidates who want to demonstrate their concern for women's issues should expend extra effort to reverse voters' default thinking by proactively portraying themselves in their advertisements as candidates who are capable of handling women's issues.

As predicted, positive and negative advertisements elicited different emotions. Participants felt positive when candidates promoted themselves and negative when candidates attacked others. Advertising-elicited emotions are important because of the well-documented fact that humans process information differently when they are in different moods. When individuals are in a positive mood, they can be expected to engage in schematic processing, but when they are in a negative mood, they can be expected to engage in piecemeal processing. Indeed, evidence was found in this study to support the argument that participants use different processing modes when in different advertising-elicited emotional states. When no relevant issue information was provided in the advertisements for participants to make assessments of a candidate's issue competency, those participants who were exposed to promotional advertisements that elicited positive emotions relied on gender schemas. By contrast, those participants who were exposed to attack ads that induced negative emotions did not rely on candidate gender for their inferences. Stated differently, negative advertisements induced negative feelings and led participants to engage in piecemeal processing and not to rely on candidate gender as a cue; positive advertisements evoked positive feelings and led participants to rely on gender schematic processing.

Limitations

College students were recruited as participants. Although students are of voting age and vary in their level of involvement in politics, they are a more ho-

mogenous population than the general population. This might limit the generalizability of the study.

One of the most important reasons to use an experimental design as was done here is that experiments can offer more control, reduce "noise" from other factors, and allow us to make causal inferences. Thus, we are able to argue that it is nothing else but candidate gender that contributed to the differences shown in this study. In a real campaign, differences in candidate perceptions may result from factors other than candidate gender such as the advertising execution, advertising repetition levels, etc. In addition, the two candidates in this race were fictitious and presented out of an electoral context. Therefore, the experiment could not capture the kind of variance that is common in the real political arena. Further studies that apply a variety of methodologies to explore effects of candidate gender are desirable.

We should note that gender schemas may not dominate voters' processing consistently. When other information is available (such as candidates' partisanship, incumbency status, and offices for which they run), viewers' schemas for partisans, incumbents, and different offices may be activated and may guide viewers' advertising processing as well. As Sapiro (1993) mentioned, the effect of candidate gender in cueing the meaning of a political figure depends on other available cues or information. In the present study, participants were not provided with other information, such as candidates' party alignment, incumbent/challenger status, or level of office. Thus, participants tended to rely on gender for inference making. In a real campaign context, voters' reliance on gender cues may depend on how much they know about the campaign and the candidates.

Finally, participants also varied in their political expertise or political interests, which may have had a moderating effect on the extent of gender schematic processing. The impact of political expertise was, however, monitored in this study, and regression analyses revealed that it had no significant effects on the dependent variables studied here. Details of these insignificant findings were omitted due to space constraints. Yet, other individual differences, such as political interests and party identification, deserve researchers' attention in future investigations.

Conclusions

In the present study we utilized a cognitive perspective to understand the effects of gender-biased

judgments of candidates on voter perceptions. Within the parameters of schema theory, this study demonstrates that gender-schema based processing alters the way voters infer candidates' issue competency. Although gender schematic processing has been well explored in different contexts, this is not the case when it comes to political advertising—therefore the value of the present study. This study establishes the contingency of gender schematic processing within a political campaign context, and its findings shed light on our understanding of how voters formulate judgments regarding political candidates, which has important implications for political campaigners and strategists.

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