"Like a Boss" or Just Bossy? How Audiences Across Age and Gender Evaluate Counterstereotypical Women on Television

SIERRA BRAY¹ OLIVIA GONZÁLEZ NATALIE JONCKHEERE University of Southern California, USA

Employing role congruity theory, this study examines judgments of professional women television characters who adhere to or violate traditional gender norms. In an experiment, participants (N=119) were randomly assigned to watch a video of a fictional woman politician with subtitles manipulated to display her speaking with either agentic or communal language. Participants then assessed the woman character's competence, likability, and hostility. After testing moderated mediation models that included identification and counterarguing as mediators and age and gender as moderators, notable findings included that (1) the agentic character was perceived as less likable than the communal character, especially among men participants; (2) older participants saw the agentic character as more hostile than the communal character; and (3) younger and mid-aged men saw the agentic character as less competent than the communal character. Though extant role congruity literature explores attitudes toward gender stereotype violations in "real world" situations, these findings suggest that these biases persist with television characters and are moderated by audience age and gender.

Keywords: gender norms, role congruity theory, professional women, stereotypes, representation, television

As powerful socializing agents, television characters and their potential to influence gender ideologies merit careful consideration. Myriad scholars have discussed how television plays a significant role in socialization processes (e.g., Baker & Raney, 2007; Witt, 2000). Embodying a "centralized system of storytelling," television functions as an increasingly accessible socializing agent across diverse populations (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002, p. 44). According to Bandura's (2001) social cognitive theory of mass communication, television and other mass media can influence individuals'

Sierra Bray: sierra.bray@usc.edu Olivia González: oagonzal@usc.edu Natalie Jonckheere: njonckhe@usc.edu

Date submitted: 2019-03-26

¹ We thank Dr. Nathan Walter (Northwestern University) and Dr. Michael Cody (University of Southern California) for their continued support.

Copyright © 2020 (Sierra Bray, Olivia González, and Natalie Jonckheere). Licensed under the Creative Commons Attribution Non-commercial No Derivatives (by-nc-nd). Available at http://ijoc.org.

behaviors and attitudes, and can do so on a global scale. Specifically, television and other media characters provide symbolic models through which audiences observe, learn, and adopt new behaviors, knowledge, and beliefs, and through providing "symbolic modeling of stereotypes" (Bandura, 2001, p. 282), these characters have the capacity to influence viewers' perceptions of a wide range of social norms, including gender roles. As documented and discussed in extant literature, television characters present salient depictions of, and can influence audiences' beliefs about, gender norms and roles and how they should function in a real-life context (Barner, 1999; Bussey & Bandura, 1999; Sink & Mastro, 2017; Witt, 2000).

Despite calls for change in the television industries, traditional gender stereotypes largely persist among contemporary television characters (Smith, Choueiti, & Pieper, 2017). Women are predominantly portrayed as inferior to men, as they are quantifiably underrepresented, occupy fewer lead and speaking roles, are portrayed as subordinate in their interactions with men, and are hyperfeminized and hypersexualized (Hunt, Ramón, & Tran, 2019; Lauzen, 2017; Sink & Mastro, 2017; Smith, Choueiti, & Pieper, 2016). Television also continues to restrict women to settings pertaining to family and the home, often as a wife or mother (Lauzen, 2017), thus reinforcing the notion that a woman's worth rests in her domesticity. Women are also less likely than men to be portrayed in a work setting or occupying professional roles (Lauzen, 2017; Lauzen, Dozier, & Horan, 2008).

Men's gender stereotypes on television significantly contrast those of women. Men characters are quantitatively favored in television programming, appearing in larger numbers, and occupying more central roles than women (Hunt et al., 2019; Lauzen, 2017; Sink & Mastro, 2017; Smith et al., 2016). Men are also depicted as dominant in their interactions with women, and are more likely than women characters to exhibit aggressiveness (Sink & Mastro, 2017) as well as assertiveness and authoritative leadership (Witt, 2000). Moreover, compared with women, men are more likely to be portrayed working in and occupying professional roles (Lauzen, 2017; Lauzen et al., 2008).

However, some literature indicates that on-screen representations of women may be—however minutely—shifting (e.g., Hunt et al., 2019; Lauzen, 2017). For example, between 2004 and 2013, central women characters were featured more prominently in promotional material for top-grossing Hollywood films, and lead women characters in promotional materials for top-grossing Hollywood and Bollywood films were more likely to be shown engaging in "aggressive" behavior, a stereotypically masculine trait (Ghaznavi, Grasso, & Taylor, 2017, p. 23). As Sink and Mastro (2017) discuss, several recent, acclaimed primetime television shows have prominently portrayed powerful women characters, though these depictions are the "exception and not the norm" (p. 18). In particular, popular television shows put professional women, such as Claire Underwood in *House of Cards*, Olivia Pope in *Scandal*, and Jacqueline Carlyle in *The Bold Type*, at the forefront of their respective series.

Given these noted shifts in the on-screen representation of women and the significant impact that television characters can have on audiences' socialization and gender ideologies, the present study queries whether agentic behaviors and characteristics are becoming more accepted and expected of women—particularly among younger audiences who may have grown up exposed to, and socialized by, these depictions. Therefore, employing a role congruity theory framework, this study examines and compares audiences' attitudes toward women television characters in professional roles who either adhere to or violate

traditional gender norms. Specifically, we explore audiences' perceptions of women characters exhibiting agentic traits (stereotypically associated with masculinity) versus communal traits (stereotypically associated with femininity). This work inquires: Do audiences more positively judge a professional woman character on television when she adheres to, versus violates, gender stereotypes? If so, do these judgements differ according to the gender and age of the audience?

Literature Review

Social Role Theory and Agentic Versus Communal Traits

Social role theory posits that behavioral sex differences stem from the opposing social roles men and women have historically performed, particularly regarding the division of labor (e.g., men traditionally performed tasks that required traits like strength and speed, and women fulfilled duties pertaining to home and the family; Eagly, Wood, & Diekman, 2000). These social roles and the division of labor likely contributed to the formation of gender roles, which further developed socially constructed expectations about men and women's characteristics.

In the literature, these traits are commonly described as agentic (traditionally masculine) and communal (traditionally feminine) qualities (Harrison & Lynch, 2005). Agentic traits center on achievement-oriented characteristics and contribute to the notion that men should be assertive, aggressive, independent, and decisive. In contrast, communal traits refer to social and service-oriented predispositions and reinforce the belief that women should be kind, selfless, sympathetic, helpful, and concerned about others (Tyler & McCullough, 2009). Thus, men's leadership is expected to embody elements such as "task achievement and performance outcomes indicating competence," whereas women leaders are expected to focus on "interpersonal relations and work satisfaction characteristic of interpersonal warmth" (Ellemers, Rink, Derks, & Ryan, 2012, p. 167). The authors also note that these expectations turn into norms; people who behave in accordance with gendered expectations are seen as good leaders, whereas those who violate these expectations are seen as less qualified.

Role Congruity Theory and Effects of Gender Stereotype Violation

Studies show that when women—particularly those in professional roles and settings—violate gender stereotypes, people are likely to perceive them negatively. Eagly and Karau (2002) forward role congruity theory, which helps explain why those who act against traditional gender roles may experience prejudice. The authors note that people often perceive women less favorably than men as candidates for leadership positions, and people evaluate leader roles less favorably when women occupy them. Results from Heilman, Wallen, Fuchs, and Tamkins (2004) support role congruity theory's assertion that women receive backlash for enacting agentic characteristics, as they are liked less than successful men. Eagly and Karau (2002) note that people more positively evaluate women who adhere to traditional gender norms and who adopt a communal leadership style. Though less studied, this effect is also seen in fictional portrayals of women; for example, an analysis of Hindi cinema showed that central women characters who enacted traditional gender norms were rewarded on screen through social acceptance or material rewards, whereas those who violated these norms were punished through ostracism or abuse (Khan & Taylor, 2018).

Successful women in work roles traditionally occupied by men—particularly positions of power—can be perceived as interpersonally hostile and unlikable (Parks-Stamm, Heilman, & Hearns, 2008). Specifically, these women may be characterized as "selfish, insensitive, cold, and manipulative . . . characteristics antithetical to the prescribed female stereotype" (Parks-Stamm et al., 2008, p. 238). Furthermore, the beauty is beastly effect suggests that physical attractiveness hinders women in professional roles, particularly in managerial positions or traditionally masculine jobs (Heilman & Saruwatari, 1979). Individuals in decision-making roles in organizations tend to equate attractiveness with competence for men, but do not have the same association for women (Berger & Zelditch, 1985).

Additionally, Rudman and Glick (1999, 2001) discovered that participants in an experiment who read job descriptions and watched videos of men and women applicants evaluated agentic women as "less socially skilled" (1999, p. 1008) than agentic men and less likely to be hired for a "feminized" managerial job (1999, p. 1008). Further, Haddock and Zanna (1994) found that participants evaluated feminist women (who embodied agentic traits) less favorably than housewives (who embodied communal traits), with the most negative attitudes toward feminists held by authoritarian men. Women leaders also receive lower evaluations than comparable men for domineering leadership, yet research shows that these women leaders have the potential to gain support and be successful in roles in which they can enact more democratic styles (Eagly & Carli, 2003; Eagly, Makhijani, & Klonsky, 1992).

Though previous research has studied the effects of gender role violations in interpersonal and professional settings, limited scholarship has explored how these negative attitudes may also occur toward agentic women television characters. Oppenheimer, Goodman, Adams-Price, Codling, and Coker (2003) analyzed American audiences' judgements and perceptions of the masculinity or femininity of agentic women characters on prime-time television shows. Oppenheimer and associates (2003) found that whereas men and women did not differ in their perceptions of the agentic women characters' masculinity or femininity, women responded more positively than men to these characters. Bakir and Palan (2013) explored representations of agentic and communal behavior in children's television advertisements in Turkey, Mexico, and the United States. Results showed that boys and men characters from advertisements in all three countries were frequently portrayed enacting agentic behaviors, particularly "aggressive, leadership, and risk-taking behaviors" (p. 50). Interestingly, Bakir and Palan (2013) also discovered that girls and women characters were more likely to exhibit agentic behaviors than communal behaviors in ads in Mexico and the U.S. Though these authors demonstrated the ways in which gender roles may be reinforced or violated in television content, their study did not address audiences' responses to these representations, which is a gap this current study seeks to fill.

Reactions to portrayals of gender norm violations on television merit further examination as these portrayals reach wider audiences than in-person interactions. For example, a woman manager at a midsize company may interact with dozens of people in a day, but a television portrayal of a professional woman can reach millions; for example, *Law & Order: SVU*, led by the character Olivia Benson, attracted more than seven million average weekly viewers across the 2018–19 broadcast season (de Moraes, 2019). Thus, television representations provide a rich opportunity to explore audience perceptions of agentic women characters' likability, competence, and interpersonal hostility.

Negative Attitudes Toward Agentic Women

Some research shows that men tend to view agentic women more unfavorably than women do. For instance, when women's job resumés violate gender stereotypes (e.g., self-present as more agentic), men perceive them more negatively (Tyler & McCullough, 2009). Heilman and colleagues (2004) discovered that negative reactions toward a woman business leader occurred only in predominantly masculine sectors, but not in gender-neutral or predominantly feminine sectors. Eagly, Karau, and Makhijani (1995) similarly found in a meta-analysis that women are often seen as less effective than men in more men-dominant organizations, but more effective than men in more women-dominant organizations. This phenomenon suggests that the degree to which an organization is men dominant (whether in the nature of its culture or in its quantity of men) may serve as a moderator in role congruity theory.

Based on our synthesis of the above literature and considering an opportunity to expand the ideas of role congruity theory to television representations, we propose our first two hypotheses:

- H1: Exposure to an agentic framing of a woman character will increase participants' perceptions of the character's hostility and decrease participants' perceptions of the character's competence and likability. In other words, participants will perceive the agentic woman character as more hostile, less competent, and less likable than the communal woman character.
- H2: The effect of the agentic frame on participants' perceptions of the character's hostility, competence, and likability will be moderated by participants' gender, such that exposure will have a greater effect on men than on women. In other words, the predicted effects in H1 will be stronger among men participants than women participants.

Differences Across Generations

Many scholars highlight distinctive differences across the past five generations in the United States, which influence these generations' perceptions of media content and gender norms.² Television remains a central part of each generation's media practices, though there are key differences. Older adults spend more time than younger adults consuming live and time-shifted television, whereas younger adults favor television-connected devices and smartphones (The Nielsen Company, 2019).

In addition, younger generations are generally more likely to be more liberal and older generations more conservative (Maniam & Smith, 2017; Parker, Graf, & Igielnik, 2019). Members of the youngest groups (Generation Z and Millennials) are similar in their views on a range of issues, including those pertaining to gender; for example, both strongly support the idea that more women entering politics is good for society (Parker et al., 2019). Furthermore, millennial women are more likely to say that "men have it easier than women

² Pew Research defines the generations as follows: Generation Z are those born between 1997 and 2012, Millennials between 1981 and 1996, Generation X between 1965 and 1980, Baby Boomers between 1946 and 1964, and the Silent Generation between 1928 and 1945 (Dimock, 2019).

these days" than women in the Generation X, Baby Boomer, or Silent Generations (Horowitz, Parker, & Stepler, 2017, para. 12).

These differences suggest that younger generations (Generation Z and Millennials) may be more likely than preceding generations (Generation X, Baby Boomers, and the Silent Generation) to react positively to women television characters' violations of gender norms. Furthermore, due to the changes in television and society cited above, including newer television programs led by agentic women characters, Generation Z may be growing up in a media environment with changing depictions of gender roles. This television content may normalize, and socialize Generation Z and Millennials to expect and accept, agentic women television characters. Accordingly, we predict that younger generations will more positively perceive agentic women on television than older generations. Hence, we propose our third and fourth hypotheses:

- H3: The effect of the agentic frame on participants' perceptions of the woman character's hostility, competence, and likability will be moderated by participants' age, such that the exposure will have a greater effect on older participants compared with their younger counterparts. In other words, the predicted effects in H1 will be stronger among older participants than younger participants.
- H4: The effect of the agentic frame on participants' perceptions of the woman character's hostility, competence, and likability will be subjected to a three-way interaction among message frame, participant gender, and participant age, such that older men will demonstrate stronger effects than younger men and women.

In other words, the predicted effects of the agentic and communal frames in H1 will show differences across the age and gender of participants.

Identification and Counterarguing

Studies examining audiences' interactions with and perceptions of television frequently employ identification and counterarguing as key factors (e.g., Chory, 2013; Igartua & Vega Casanova, 2016; Moyer-Gusé, Chung, & Jain, 2011). Cohen (2001) describes identification as "a mechanism through which audience members experience reception and interpretation of the text from the inside, as if the events were happening to them" (p. 245). Identification can mediate the effects of a media narrative's messages on audiences' attitudes (de Graaf, Hoeken, Sanders, & Beentjes, 2012). Furthermore, counterarguing—a process in which audiences cognitively resist or argue with media messages that are perceived to be persuasive—decreases individuals' ability to be influenced by a narrative (Niederdeppe, Kim, Lundell, Fazili, & Frazier, 2012). Through engaging in this "silent dialogue" (Miller & Baron, 1973, p. 101), audience members resist persuasive messages. Thus, both identification and counterarguing may act as mechanisms in audiences' engagement with media content. Accordingly, we use these variables as mediators in the analytical models testing each of the above hypotheses.

Method

Participants

To test our hypotheses, we designed and distributed an online experiment through Qualtrics, a survey software. The experiment was administered electronically to 132 adult participants in the United States drawn from Qualtrics Panels using a quota sampling method, accounting for equal representation by gender and age, and representativeness of the U.S. population by race and ethnicity. The final sample included 119 participants, as 13 individuals were removed due to unrealistic response time or inability to accurately respond to one recall question about the stimulus. Based on previous meta-analyses that found moderate effects for gender stereotypes on biased evaluations, especially when women violate gender norms (Eagly et al., 1992; Swim, Borgida, Maruyama, & Myers, 1989), we calculated the required sample size using the following input for a power analysis in G*Power: Cohen's d=0.50, p=.05, $1-\beta=.80$ (Faul, Erdfelder, Buchner, & Lang, 2009).

Participants were asked to provide demographic data before watching the stimulus material. The sample was 52.1% women (n=62) and 47.9% men (n=57) (no nonbinary or genderqueer participants were recorded—to be discussed in the limitations section). The age of the sample ranged from 18 to 78 years (M=38.72, SD=16.64); as such, our sample contained members from the five aforementioned generations.

Most participants in the sample identified as White/Caucasian (n=99, 83.2%), followed by Black/African American (n=10, 8.4%), Hispanic/Latinx (n=8, 6.7%), Asian/Asian American (n=7, 5.9%), Native American (n=1, 0.8%), Pacific Islander (n=1, 0.8%), or Other (n=2, 1.7%). The sample's skew toward White/Caucasian is 6.7% above the U.S. Census Bureau's July 2019 population estimates, which put the country's White/Caucasian-identifying population at 76.5%. The sample underrepresents the Black/African American and Hispanic/Latinx populations in the U.S. (U.S. Census Bureau, 2019).

Materials

Two modified versions of a short clip from the Danish political drama television series *Borgen* were used as stimulus material. *Borgen* centers on the character of Birgitte Nyborg, who becomes the first woman prime minister of Denmark. We used this series to avoid familiarity bias, as it is produced in Danish and has minimal viewership in the United States, which made prior exposure to the show or its main protagonist unlikely. More importantly, because the vocal track used a language with which Americans were less likely to be familiar, we could manipulate the framing of the scene by changing the subtitles, ensuring that the only difference between the conditions was whether the main character used agentic words or communal words. Use of a series in another language also ensured that participants would be less likely to realize that the subtitles had been manipulated.

³ The total percentage of racial/ethnic identity is greater than 100% because participants were allowed to select multiple categories.

The specific clip was drawn from Season 1, Episode 5 ("Mænd der elsker kvinder," i.e. "Men Who Love Women"). The clip depicts Birgitte speaking with the head of a major Danish corporation, a man, about a proposed government bill that would require a certain percentage of corporate boards to contain women executives. We stripped the original subtitles from the clip and resubtitled two different versions of the clip, one with Birgitte's dialogue changed to be more agentic (i.e., more direct and assertive language) and the other with Birgitte's dialogue changed to be more communal (i.e., more agreeable, less confrontational language). In both versions, the man character's dialogue remained the same.

Procedures

Participants were first presented with a short introduction to the study, informing them that the questionnaire would ask them about their personal reactions to a video. Participants were then asked a series of demographic questions, including their age, gender, and race/ethnicity. Following the demographic questions, participants were asked to indicate which languages they understood, to filter out any respondents who understood Danish. None of the respondents in our sample indicated that they understood Danish; thus, no one was removed from our final analysis for this purpose.

Next, participants were informed that they would be asked to watch a short video and would be presented with questions about the video. Additionally, participants read a brief statement that explained the context of the clip. The online survey platform required participants to stay on the page for the duration of the clip to help ensure that they would watch it in its entirety.

Participants were randomly assigned to one of two conditions: exposure to the agentic or communal stimulus. Only participants who passed a simple attention check question were able to move on in the survey. Finally, to avoid familiarity bias, at the end of the survey, participants were asked whether they believed they had seen the actress in the clip before the study. If they indicated "yes," they were asked from which film or television show they recognized her. None of the participants reported *Borgen*, so no participants were removed from the study for this purpose.

Measures

Manipulation Check

To confirm whether participants identified the agentic frame as agentic and the communal frame as communal, we used a four-item scale for each set of traits. The specific items were based on the descriptions of agentic and communal traits proposed by Heilman (2001) and Tyler and McCullough (2009). Responses were recorded on a 6-point scale (1 = strongly disagree, 6 = strongly agree). For the agentic scale, participants were instructed to indicate their level of agreement with such items as "She was assertive" and "She was independent" (M = 4.63, SD = 1.01; a = .83). The communal portrayal scale included items such as "She was kind" and "She was helpful" (M = 4.08, SD = 1.12; a = .86).

Likability of Woman Character

Respondents' perceptions of likability of the woman character were obtained by using a 10-item scale adapted from Reysen's (2005) measure of likability. Responses were recorded on a 6-point scale (1 = $strongly\ disagree$, 6 = $strongly\ agree$). Example items include "She is friendly" and "I would like her as a coworker" (M = 4.08, SD = 1.16; a = .95).

Perceived Competence of Woman Character

Respondents' perceptions of the woman character's competence were measured using a five-item competence scale adapted from a measure by Parks-Stamm and associates (2008). Responses were recorded on a 6-point scale (1 = strongly disagree, 6 = strongly agree). Example items in the questionnaire included "She is capable" and "She is intelligent" (M = 4.96, SD = 1.26; a = .97).

Perceived Interpersonal Hostility of Woman Character

Respondents' perceptions of the woman character's interpersonal hostility were measured using an eight-item scale adapted from Parks-Stamm and colleagues (2008). Responses were computed based on a 6-point bipolar adjective scale rating system describing the woman character (e.g., nonabrasive-abrasive, accommodating-pushy, warm-cold, gentle-tough). Higher scores indicated an increase in perceived hostility of the woman character (M = 3.29, SD = 1.10; a = .92).

Identification With Woman Character

Respondents' identification with the woman character was measured using a 10-item identification scale by Cohen (2001). Responses were recorded on a 6-point scale (1 = strongly disagree, 6 = strongly agree). The questionnaire included items such as, "I think I have a good understanding of [the woman character]" and "During viewing, I felt I could really get inside [the woman character's] head" (M = 4.30, SD = 1.13; a = .94).

Counterarguing With Clip

Counterarguing was assessed with a scale adapted from Moyer-Gusé and Nabi's (2010) measure: four items intended to evaluate the respondents' tendency to critically examine or disagree with the messages of the woman character. Participants were asked to indicate the degree to which they agreed with certain statements on a 5-point scale ($1 = not \ at \ all$, $5 = a \ lot$). Items included statements such as, "While watching the clip, I sometimes felt like I wanted to 'argue back' to [the woman character] in what was going on on-screen" and "I found myself looking for flaws in the way information was presented in the program by [the woman character]" (M = 2.38, SD = 1.19; a = .92).

Results

Manipulation Check

Before testing the research hypotheses, two independent-samples t tests examined whether participants in the agentic condition perceived their clip to represent characteristics associated with agency and whether participants in the communal condition perceived their clip to depict characteristics related to communality. Participants in the communal condition reported higher perceived communality of the woman character (M = 4.33, SD = 1.22) compared with their counterparts in the agentic condition (M = 3.87, SD = 0.99). This finding was significant at the 95% level, t(117) = -2.29, p = .02. Though participants in the agentic version of the clip perceived higher levels of agency of the main character (M = 4.74, SD = 0.93) compared with their counterparts with the communal version (M = 4.50, SD = 1.10), these differences were not significant at the 95% level, t(110) = 1.29, p = .20. Nevertheless, the difference in means demonstrates that the participants recognized the agentic and communal frames as such.

Testing Hypotheses

All hypotheses were assessed with PROCESS, an ordinary least squares regression, that provides bootstrapped (20,000 samples) estimates for direct and mediated effects, together with 95% confidence intervals (Hayes, 2018). Because the research hypotheses focused on a combination of direct, conditioned, and indirect effects, Model 8 was used to analyze the data for H1–H3, and Model 12 was used to assess the three-way interaction (H4).

To test H1 and H2, variables were input into Model 8 in PROCESS, with the condition (i.e., communal or agentic framing) as the predictor variable, counterarguing and identification as mediators, participant gender as a moderator, and perceptions of competence, likability, and interpersonal hostility as the outcome variables. To test H3, all the same variables were input into Model 8 as with the tests for H1 and H2, except the variable of participant age served as a moderator instead of participant gender. To test H4, the condition served as the predictor variable, counterarguing and identification served as mediators, both participant gender and participant age served as moderators, and perceptions of competence, likability, and interpersonal hostility served as the outcome variables. Thus, Model 12 replicated the variables from Model 8, but included both the variable of participant age and the variable of participant gender as moderators.

Participants Perceived the Agentic Woman Character as Less Likable Than the Communal Woman Character

Although the findings were in the predicted direction such that exposure to the agentic framing of the character increased perceptions of hostility (b = -0.94, SE = 0.60, 95% CI [-2.12, 0.25]) and decreased perceptions of competence (b = 0.76, SE = 0.48, 95% CI [-0.20, 1.71]), these results were not significant. However, as predicted by H1, exposure to the agentic framing of the character significantly decreased the character's likability when compared with exposure to the communal framing (b = 1.03, SE = 0.46, 95% CI [0.11, 1.94]). Hence, H1 was partially supported.

Men Judged the Agentic Woman Character as Less Likable Than the Communal Woman Character (With Borderline Significance)

With respect to H2, there was no significant interaction between exposure to the agentic frame and participant gender for perceptions of the character's hostility (b = 0.44, SE = 0.37, 95% CI [-0.30, 1.18]) or competence (b = -0.40, SE = 0.30, 95% CI [-0.99, 0.20]); however, the analysis did record a borderline significant interaction (p = .09) between message frame (i.e., agentic vs. communal) and participant gender for perceptions of the character's likability (b = -0.49, SE = 0.29, 95% CI [-1.06, 0.08]). Men participants showed a significant difference in how likable they found the agentic versus communal woman character (b = 0.53, SE = 0.21, 95% CI [0.12, 0.94])—in particular, men found the agentic character as less likable (M = 3.69) than the communal character (M = 4.23). However, results showed no significant differences in perceptions among women participants (b = 0.04, SE = 0.20, 95% CI [-0.36, 0.44]).

Additionally, the comparison of means suggests that, among participants who were assigned the agentic condition, men participants perceived the agentic character as less likable (M = 3.69) than women participants did (M = 4.20; see Figure 1). Thus, the analysis recorded partial support for H2, which predicted a difference between men and women participants' judgements of the characters among the dependent variables.

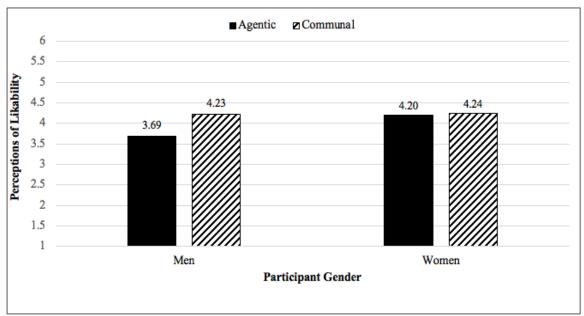


Figure 1. Comparing means for interaction between gender and frame on perceptions of likability.

As Participant Age Increased, Participants Judged the Agentic Woman Character as More Hostile Than the Communal Woman Character

Participant age did not play a significant moderating role with respect to the impact of the agentic framing on perceptions of character's competence (b=0.00, SE=0.01, 95% CI [-0.01, 0.02]) or likability (b=-0.00, SE=0.01, 95% CI [-0.02, 0.02]). However, a significant effect was retrieved for the interplay among age, message frame (agentic vs. communal), and perceptions of hostility (b=-0.02, SE=0.01, 95% CI [-0.04, -0.01]). As the variable of participant age increased, participants tended to see a greater difference between the conditions such that the agentic woman character was perceived as more hostile than the communal woman character (see Figure 2). Thus, H3—which predicted that older participants would perceive greater differences in likability, competence, and hostility between the conditions than younger participants—was partially supported.

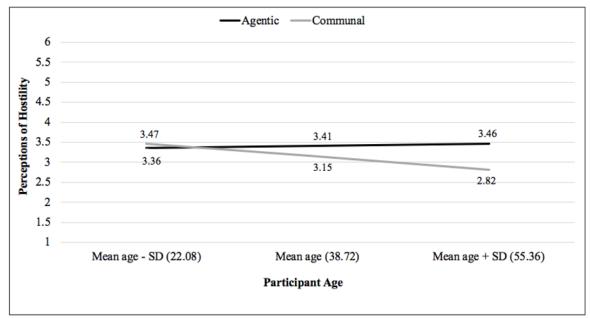


Figure 2. Comparing interaction of age and framing on perceptions of hostility.

Younger and Mid-Aged Men Saw the Agentic Woman Character as Less Competent Than the Communal Woman Character (With Borderline Significance)

H4 predicted a three-way interaction among message frame, gender, and age. As the results indicate, there was no evidence for a three-way interaction for character's hostility (b = 0.04, SE = 0.03, 95% CI [-0.02, 0.09]) or likability (b = 0.00, SE = 0.02, 95% CI [-0.04, 0.05]). However, as predicted in H4, a borderline significant interaction emerged (p = .08) among gender, age, and the message frame on perceptions of competence (b = 0.04, SE = 0.02, 95% CI [-0.01, 0.09]). In particular, borderline significant

differences emerged between the agentic versus communal frames for younger men ($\mu - SD = 22.08$ years old; b = 0.62, SE = 0.37, p = .10, 95% CI [-0.12, 1.36]) and mid-aged men ($\mu = 38.72$ years old; b = 0.44, SE = 0.24, p = .07, 95% CI [-0.04, 0.91]) such that both demographics perceived the agentic woman character as less competent than the communal woman character (see effect sizes in Figure 3a). Thus, H4 was partially supported.

An interesting finding also emerged regarding the demographic of young women ($\mu - SD = 22.08$ years old). Although not statistically significant (b = -0.31, SE = 0.28, 95% CI [-0.87, 0.24]), young women were the only demographic among the six groups measured in a simple effects test (three age points and two genders) that reported lower competence for the communal woman character than the agentic woman character (see effect sizes in Figure 3b). Exposure to the communal depiction of the main character decreased perceptions of competence among younger women, while increasing perceptions of competence among younger men. Thus, the depiction of the communal (i.e., stereotypical) woman character backfired among young women, ultimately decreasing the level of perceived competence of the character.

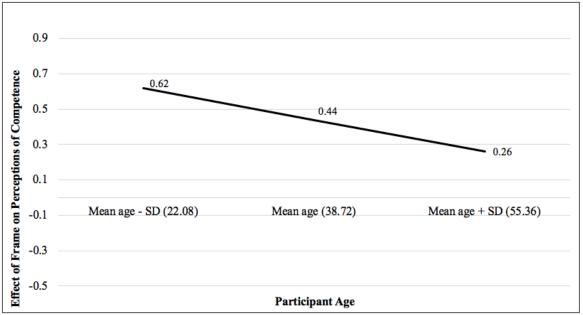


Figure 3a. Comparing interaction effects of age, gender, and framing on perceptions of competence among men participants.

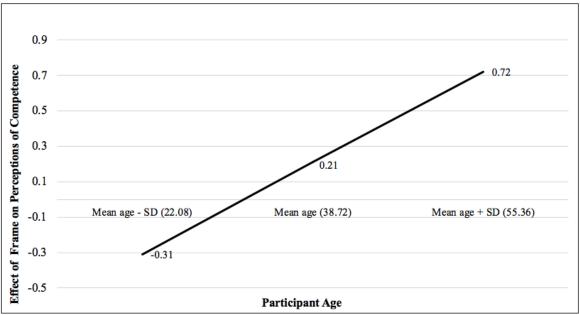


Figure 3b. Comparing interaction effects of age, gender, and framing on perceptions of competence among women participants.

Discussion

The present study extends social role and role congruity theories by showing that biases persist against women who defy traditional gender stereotypes—even if these women are fictional media characters. Because agentic women television characters reach wide audiences, the effects predicted by these theories may occur more widely and frequently than previously thought and in various contexts. This work thus considers television as a powerful and expansive source of socialization and stereotype modeling (Baker & Raney, 2007; Bandura, 2001; Gerbner et al., 2002), as well as its impact on the proliferation of gender norms (Barner, 1999; Bussey & Bandura, 1999; Sink & Mastro, 2017; Witt, 2000). Furthermore, this study adds nuance to social role and role congruity theories by demonstrating that effects may differ according to the age and gender of audience members; the interaction of these demographics have been previously understudied within the context of these theories.

Though studies indicate that gender stereotypes largely persist in television content, some recent television shows, such as *Better Call Saul* and *Scandal*, portray and celebrate agentic professional women. These increasing representations of agentic women may have more positive effects on future audiences' judgements of stereotype-defying media characters and, through television's socialization processes (Baker & Raney, 2007; Bandura, 2001; Gerbner et al., 2002; Witt, 2000), may promote more positive attitudes toward professional agentic women. As role congruity theory suggests, when women in positions of power defy the gender norms outlined by social role theory (e.g., through embodying agentic characteristics), they are evaluated negatively. Our results indicate that this phenomenon holds true among audience members

who observe agentic women on television occupying positions of power—and that the effects can be stronger or weaker depending on gender and age of the audience.

Our finding that the agentic woman character was perceived as significantly less likable than the communal character (H1) is consistent with Eagly and Karau's (2002) role congruity theory, which predicts prejudice toward women in leadership positions who violate gender norms, and aligns with the supporting literature on this theory (Eagly & Carli, 2003; Eagly et al., 1992; Heilman et al., 2004). However, this study extends this literature through applying role congruity theory to agentic, professional women on television—ultimately finding that exceptions are not made for fictional characters with whom audiences become socialized (Baker & Raney, 2007; Witt, 2000). As our results demonstrate, even television depictions of agentic women, particularly of those in professional settings, fall prey to prejudice regarding their perceived likability.

However, although interesting results emerged regarding likability, the character's framing (i.e., agentic or communal) did not produce a significant main effect for perceptions of the character's hostility or competence. Perhaps these results can promote some optimism—general audiences (without considering gender or age) do not seem to perceive a woman who asserts herself as more aggressive or less competent than a woman who uses more passive communication.

Furthermore, results from H2 show that audience members' gender can moderate how likable they find agentic versus communal women television characters. In particular, men appeared to judge the agentic woman character as less likable than the communal character (with borderline significance). This outcome aligns with literature suggesting that men judge women more harshly for violating gender norms (e.g., Tyler & McCullough, 2009). However, there were no significant differences among women audiences in judging likability when exposed to the agentic or communal clip, thus indicating that, generally, women evaluate a woman character's likability similarly whether she adheres to or violates gender norms.

These results suggest that the effects of role congruity theory are likely present when considering how audiences of different genders may have an affinity for agentic women characters. However, no significant effect involving audience gender occurred regarding competence and hostility—even if certain audiences find an agentic character as less likable, these negative feelings do not bleed into perceptions of competence and hostility. In other words, audiences can delineate liking from judgements of ability.

Findings from H3 contribute to understandings of audience age in relation to social role and role congruity theories within the context of television. Studies suggest that older audiences are more conservative and traditional, whereas younger generations may be more liberal and open to individuals who break traditional norms and boundaries (Parker et al., 2019). Results from H3 showed a significant interaction effect of age on perceptions of hostility: As participant age increased, perceptions of the agentic woman character's hostility also increased. In other words, older audiences may work within the confines of role congruity theory because they are more likely to perceive an agentic woman (i.e., someone who defies stereotypical gender roles) as hostile compared with a communal woman (i.e., someone who adheres to stereotypical gender roles). Once again, though previous literature focused on these phenomena within real-life contexts, this effect appears to persist with television characters.

Interestingly, results from H4 reveal an emergent interaction among frame of exposure, gender, and age for perceptions of competence. Younger (i.e., one standard deviation below the mean age) and mid-aged (i.e., the mean age) men perceived the agentic woman character as less competent than the communal character (with borderline significance). These findings complicate extant literature which suggests that younger audiences are more open to individuals who deviate from stereotypes (e.g., Parker et al., 2019). Young men may be pulled in two directions: Their generational affiliation may make them more likely to appreciate characters who break stereotypical boundaries, yet their gender may lead to more positive feelings toward women characters who align with stereotypical gender roles (i.e., act communally). Thus, this study shows that regardless of generation, gender may be a greater predictor of attitudes toward stereotypical or counterstereotypical women.

Further, the communal character appeared to strike different reactions among young women versus young men. In particular, younger women perceived the communal character as less competent, whereas younger men perceived the communal character as more competent. Although perceptions of the agentic and communal characters did not reveal statistically significant differences among young women, an interesting finding emerged: Young women (i.e., one standard deviation below the mean) comprised the only demographic group of the six measured for H4 (two genders, three age points) that saw the communal character as less competent than the agentic character.

The emerging effects among young women shed a more nuanced light on what role congruity theory may have predicted. Though the theory suggests that people will have negative reactions to women who deviate from traditional gender roles, young women may show the opposite—a topic to explore in future research with a larger sample size. Contrary to literature predicting a general backlash to counterstereotypical women, our study shows that young women may demonstrate a distaste for television characters who act stereotypically feminine (i.e., passive, apologetic). This finding may suggest that younger women who have grown up with increasingly counterstereotypical representations of women in media are averse to depictions that reproduce traditional gender stereotypes. Thus, we build on previous role congruity research by engaging age and gender as interacting factors, bridging the literature on gender (e.g., Tyler & McCullough, 2009) and generations (e.g., Parker et al., 2019) with Eagly and Karau's (2002) role congruity theory involving research on women leaders.

Overall, scholars have devoted considerable attention to examining the portrayal of gender stereotypes and the resulting proliferation of gender norms in television content (e.g., Lauzen, 2017; Lauzen et al., 2008; Sink & Mastro, 2017; Witt, 2000). This study contributes to contemporary understandings of how accepted norms of women's behavior in television may be changing. This study extends role congruity theory by demonstrating that its effects persist beyond day-to-day life—media characters who break gender stereotypes can also be subject to negative perceptions. Furthermore, this study complicates previous literature by showing differences among gender and age for these phenomena—specifically, examining these demographics simultaneously to uncover interaction effects.

Limitations and Future Directions

Our study possesses a few notable limitations. First, the character in our experiment was a white, seemingly able-bodied, and cisgender woman, for whom embodying agentic characteristics carries different consequences and evokes different responses compared with women of color. Knowing that women who are of color, disabled, LGBTQ+, and who identify with other marginalized communities face disproportionate discrimination, future studies should use the framework of intersectionality (Crenshaw, 1989, 1991) to examine the ways in which racism, heterosexism, ableism, and classism compound to influence audiences' judgements of multiply marginalized characters. For example, future studies could examine how audiences perceive and judge a queer Black woman character who embodies agentic characteristics. Further, this study only examined audience members' perceptions of women television characters who adhere to or violate gender stereotypes. Future studies should examine audiences' perceptions of men characters who embody (e.g., act agentically) or defy (e.g., act communally) prescribed norms of masculinity.

Additionally, in terms of participants, this study did not record any nonbinary or genderqueer people who took the survey. Future iterations should strive to include participants who do not identify within the prescriptive gender binary of men and women, as their perspectives may provide important nuance. The study also did not record participants' sexual orientation, which would likely provide interesting results as a potential moderator of the experimental effect. Furthermore, because our sample skewed white/Caucasian, further studies should seek a wider sample with more diverse participant representation to examine potential differences along racial and ethnic lines.

Further, despite running a power analysis in G*Power based on a similar study that suggested our sample was large enough, our sample size did not give us enough power to detect certain effects. In particular, some findings in both H2 and H4 were borderline significant. A larger sample size could produce significant results, especially since our model in one of those tests, Hayes's (2018) Model 12, tests a three-way interaction. Therefore, future studies wishing to test the effects of age and gender on judgments of agentic and communal women should engage more participants. Future work may also benefit from adopting a mixed-methods approach—complementing statistical analyses with qualitative data, drawn from structured interviews or focus groups, to explore participants' reported reasoning and rationale for their perceptions.

References

- Baker, K., & Raney, A. (2007). Equally super?: Gender-role stereotyping of superheroes in children's animated programs. *Mass Communication and Society, 10*(1), 25–41. doi:10.1080/15205430709337003
- Bakir, A., & Palan, K. (2013). Agentic and communal: Multinational analysis of gender portrayal in children's television commercials. *Journal of Current Issues & Research in Advertising*, 34(1), 39–56. doi:10.1080/10641734.2013.754708

- Bandura, A. (2001). Social cognitive theory of mass communication. *Media Psychology, 3*(3), 265–299. doi:10.1207/S1532785XMEP0303_03
- Barner, M. R. (1999). Sex-role stereotyping in FCC-mandated children's educational television. *Journal of Broadcasting & Electronic Media*, 43(4), 551–564. doi:10.1080/08838159909364509
- Berger, J., & Zelditch, M. (1985). Status, rewards, and influence. San Francisco, CA: Jossey-Bass.
- Bussey, K., & Bandura, A. (1999). Social cognitive theory of gender development and differentiation. *Psychological Review, 106*(4), 676–713. doi:10.1037/0033-295X.106.4.676
- Chory, R. M. (2013). Differences in television viewers' involvement: Identification with and attraction to liked, disliked, and neutral characters. *Communication Research Reports, 30*(4), 293–305. doi:10.1080/08824096.2013.837041
- Cohen, J. (2001). Defining identification: A theoretical look at the identification of audiences with media characters. *Mass Communication and Society*, *4*(3), 245–264. doi:10.1207/S15327825MCS0403 01
- Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*, 1989(1), 139–167.
- Crenshaw, K. W. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, *43*(6), 1241–1299. doi:10.2307/1229039
- de Graaf, A., Hoeken, H., Sanders, J., & Beentjes, J. (2012). Identification as a mechanism of narrative persuasion. *Communication Research*, *39*(6), 802–823. doi:10.1177/0093650211408594
- de Moraes, L. (2019, May 21). 2018–19 TV season ratings: CBS wraps 11th season at no. 1 in total viewers, NBC tops demo; "Big Bang Theory" most watched series. Retrieved from https://deadline.com/2019/05/tv-ratings-2018-2019-season-totals-viewers-demo-cbs-nbc-1202620062/
- Dimock, M. (2019, January 17). *Defining generations: Where Millennials end and Generation Z begins*. Retrieved from https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/
- Eagly, A. H., & Carli, L. L. (2003). The female leadership advantage: An evaluation of the evidence. *The Leadership Quarterly*, *14*(6), 807–834. doi:10.1016/j.leaqua.2003.09.004
- Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review, 109*(3), 573–598. doi:10.1037//0033-295X.109.3.573

- Eagly, A. H., Karau, S. J., & Makhijani, M. G. (1995). Gender and the effectiveness of leaders: A metaanalysis. *Psychological Bulletin*, 117, 125–145. doi:10.1037/0033-2909.117.1.125
- Eagly, A. H., Makhijani, M. G., & Klonsky, B. G. (1992). Gender and the evaluation of leaders: A meta-analysis. *Psychological Bulletin*, 111(1), 3–22. doi:10.1037/0033-2909.111.1.3
- Eagly, A. H., Wood, W., & Diekman, A. B. (2000). Social role theory of sex differences and similarities: A current appraisal. In T. Eckes & H. M. Trautner (Eds.), *The developmental social psychology of gender* (pp. 123–174). Mahwah, NJ: Erlbaum.
- Ellemers, N., Rink, F., Derks, B., & Ryan, M. (2012). Women in high places: When and why promoting women into top positions can harm them individually or as a group (and how to prevent this). Research in Organizational Behavior, 32, 163–187. doi:10.1016/j.riob.2012.10.003
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. (2009). Statistical power analyses using G*Power 3.1:

 Tests for correlation and regression analyses. *Behavior Research Methods*, *41*(4), 1149–1160. doi:10.3758/BRM.41.4.1149
- Gerbner, G., Gross, L., Morgan, M., Signorielli, N., & Shanahan, J. (2002). Growing up with television: Cultivation processes. In J. Bryant & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (2nd ed., pp. 43–67). Mahwah, NJ: Erlbaum.
- Ghaznavi, J., Grasso, K. L., & Taylor, L. D. (2017). Increasingly violent but still sexy: A decade of central female characters in top-grossing Hollywood and Bollywood film promotional material.

 International Journal of Communication, 11, 23–47. Retrieved from https://ijoc.org/index.php/ijoc/article/view/4673
- Haddock, G., & Zanna, M. P. (1994). Preferring "housewives" to "feminists": Categorization and the favorability of attitudes toward women. *Psychology of Women Quarterly, 18*(1), 25–52. doi:10.1111/j.1471-6402.1994.tb00295.x
- Harrison, L. A., & Lynch, A. B. (2005). Social role theory and the perceived gender role orientation of athletes. *Sex Roles*, *52*(3), 227–236. doi:10.1007/s11199-005-1297-1
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis.* New York, NY: Guilford.
- Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, *57*(4), 657–674. doi:10.1111/0022-4537.00234

- Heilman, M. E., Wallen, A. S., Fuchs, D., & Tamkins, M. (2004). Penalties for success: Reactions to women who succeed at male gender-typed tasks. *Journal of Applied Psychology*, 89(3), 416–427. doi:10.1037/0021-9010.89.3.416
- Heilman, M., & Saruwatari, L. (1979). When beauty is beastly: The effects of appearance and sex on evaluations of job applicants for managerial and nonmanagerial jobs. *Organizational Behavior and Human Performance*, 23(3), 360–372. doi:10.1016/0030-5073(79)90003-5
- Horowitz, J. M., Parker, K., & Stepler, R. (2017, October 18). *Wide partisan gaps in U.S. over how far the country has come on gender equality*. Retrieved from http://www.pewsocialtrends.org/2017/10/18/wide-partisan-gaps-in-u-s-over-how-far-the-country-has-come-on-gender-equality
- Hunt, D., Ramón, A.-C., & Tran, M. (2019). Hollywood diversity report 2019: Old story, new beginnings. Retrieved from https://socialsciences.ucla.edu/wp-content/uploads/2019/02/UCLA-Hollywood-Diversity-Report-2019-2-21-2019.pdf
- Igartua, J. J., & Vega Casanova, J. (2016). Identification with characters, elaboration, and counterarguing in entertainment-education interventions through audiovisual fiction. *Journal of Health Communication*, *21*(3), 293–300. doi:10.1080/10810730.2015.1064494
- Khan, S., & Taylor, L. D. (2018). Gender policing in mainstream Hindi cinema: A decade of central female characters in top-grossing Bollywood movies. *International Journal of Communication*, 12, 3641–3662. Retrieved from https://ijoc.org/index.php/ijoc/article/view/8701/2448
- Lauzen, M. M. (2017). Boxed in 2016–17: Women on screen and behind the scenes in television.

 Retrieved from https://womenintvfilm.sdsu.edu/wp-content/uploads/2017/09/201617_Boxed_In_Report.pdf
- Lauzen, M. M., Dozier, D. M., & Horan, N. (2008). Constructing gender stereotypes through social roles in prime-time television. *Journal of Broadcasting & Electronic Media, 52*(2), 200–214. doi:10.1080/08838150801991971
- Maniam, S., & Smith, S. (2017, March 20). A wider partisan and ideological gap between younger, older generations. Retrieved from https://www.pewresearch.org/fact-tank/2017/03/20/a-wider-partisan-and-ideological-gap-between-younger-older-generations/
- Miller, N., & Baron, R. S. (1973). On measuring counterarguing. *Journal for the Theory of Social Behaviour*, *3*(1), 101–118. doi:10.1111/j.1468-5914.1973.tb00317.x
- Moyer-Gusé, E., Chung, A. H., & Jain, P. (2011). Identification with characters and discussion of taboo topics after exposure to an entertainment narrative about sexual health. *Journal of Communication*, 61(3), 387–406. doi:10.1111/j.1460-2466.2011.01551.x

- Moyer-Gusé, E., & Nabi, R. L. (2010). Explaining the effects of narrative in an entertainment television program: Overcoming resistance to persuasion. *Human Communication Research*, *36*(1), 26–52. doi:10.1111/j.1468-2958.2009.01367.x
- Niederdeppe, J., Kim, H. K., Lundell, H., Fazili, F., & Frazier, B. (2012). Beyond counterarguing: Simple elaboration, complex integration, and counterelaboration in response to variations in narrative focus and sidedness. *Journal of Communication*, 62(5), 758–777. doi:10.1111/j.1460-2466.2012.01671.x
- The Nielsen Company. (2019). *The Nielsen total audience report: Q1 2019*. https://s3.amazonaws.com/media.mediapost.com/uploads/NielsenTotalAudienceReportQ12019.pdf
- Oppenheimer, B., Goodman, M., Adams-Price, C., Codling, J., & Coker, J. (2003). Audience perceptions of strong female characters on television. *Communication Research Reports*, 20(2), 161–172. doi:10.1080/08824090309388812
- Parker, K., Graf, N., & Igielnik, R. (2019). *Generation Z looks a lot like Millennials on key social and political issues*. Retrieved from https://www.pewsocialtrends.org/2019/01/17/generation-z-looks-a-lot-like-millennials-on-key-social-and-political-issues
- Parks-Stamm, E., Heilman, M., & Hearns, K. (2008). Motivated to penalize: Women's strategic rejection of successful women. *Personality and Social Psychology Bulletin*, *2*(34), 237–247. doi:10.1177/0146167207310027
- Reysen, S. (2005). Construction of a new scale: The Reysen Likability Scale. *Social Behavior and Personality*, 33(2), 201–208. doi:10.2224/sbp.2005.33.2.201
- Rudman, L. A., & Glick, P. (1999). Feminized management and backlash toward agentic women: The hidden costs to women of a kinder, gentler image of middle managers. *Journal of Personality and Social Psychology*, 77(5), 1004–1010. doi:10.1037/0022-3514.77.5.1004
- Rudman, L. A., & Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues, 57*(4), 743–762. doi:10.1111/0022-4537.00239
- Sink, A., & Mastro, D. (2017). Depictions of gender on primetime television: A quantitative content analysis. *Mass Communication and Society*, 20(1), 3–22. doi:10.1080/15205436.2016.1212243
- Smith, S. L., Choueiti, M., & Pieper, K. (2016). Inclusion or invisibility?: Comprehensive Annenberg report on diversity in entertainment. Retrieved from https://annenberg.usc.edu/sites/default/files/2017/ 04/07/MDSCI_CARD_Report_FINAL_Exec_Summary.pdf
- Smith, S. L., Choueiti, M., & Pieper, K. (2017). *Inequality in 900 popular films: Examining portrayals of gender, race/ethnicity, LGBT, and disability from 2007–2016*. Retrieved from

- $https://annenberg.usc.edu/sites/default/files/Dr_Stacy_L_Smith-Inequality_in_900 \\ _Popular_Films.pdf$
- Swim, J., Borgida, E., Maruyama, G., & Myers, D. (1989). Joan McKay versus John McKay: Do gender stereotypes bias evaluations? *Psychological Bulletin*, *105*(3), 409–429. doi:10.1037/0033-2909.105.3.409
- Tyler, J. M., & McCullough, J. D. (2009). Violating prescriptive stereotypes on job resumes: A self-presentational perspective. *Management Communication Quarterly*, 23(2), 272–287. doi:10.1177/0893318909341412
- U.S. Census Bureau. (2019). *QuickFacts*. Retrieved from https://www.census.gov/quickfacts/fact/table/US/PST045218
- Witt, S. D. (2000). Review of research: The influence of television on children's gender role socialization. *Childhood Education, 76*(5), 322–324. doi:10.1080/00094056.2000.10522124