



Do Women in the Newsroom Make a Difference? Coverage Sentiment toward Women and Men as a Function of Newsroom Composition

Eran Shor¹ · Arnout van de Rijt² · Alex Miltsov¹

© Springer Science+Business Media, LLC, part of Springer Nature 2018

Abstract

Positive or negative media coverage may have important consequences for individuals' lives and ability to succeed. One potential factor that may affect the tone of coverage, in particular for women, is the gender of newsroom managers. Some scholars have suggested that women in key editorial and managerial roles should have a positive effect on the overall coverage of issues in the news, and specifically on the coverage of women. We used fixed effects regression to analyze panel data on the coverage sentiment of 212 U.S. newspapers from various cities and states between 2004 and 2009 to examine the effects of the gendered composition of newsrooms on coverage tone for both men and women. Our results showed that individuals with female names receive more positive coverage than those with male names do in every section of the newspaper. We also found that increases in female representation on newspapers' editorial boards resulted in coverage for women that is moderately more positive. However, there is no evidence that under female executive editorship coverage sentiment favors women. Our findings are consistent with the work of gender sociologists and media scholars who have highlighted the media's rigid gender structures and their resistance to change.

Keywords Media · Editors · Gender · Coverage · Sentiment · Gender composition

Positive or negative media coverage has significant consequences for individuals and issues that affect their lives. For example, a long line of research has looked at the coverage of female political candidates in various countries, showing that they often receive coverage that is not on par with that of their male counterparts. This differential coverage, in turn, often translates into fewer campaign donations and may negatively affect their ability to draw voters (Braden 1996; Bystrom et al. 2001; Caul Kittilson and Fridkin 2008; Heldman et al. 2005; Kahn 1994), perhaps even deciding a presidential election in disfavor of a female candidate (Carlin and Winfrey 2009). Similarly, scholars have argued that the coverage of women's

movements has tended to delegitimize those movements through a persistent focus on protesters' appearance, by criticizing their statements and demands as unrealistic and childish, and by emphasizing dissent within the movements (Ashley and Olson 1998). In business, studies have suggested that the media tend to ignore and marginalize female entrepreneurs, making it more difficult for them to succeed and develop their businesses (Baker et al. 1997). Finally, various studies have shown that the coverage of sexual assault and violence against women often vilifies the victims, portraying them as promiscuous or careless and generating victim-blaming (Anastasio and Costa 2004; Carl 2003; Meyers 1997; O'Hara 2012).

The last half of a century has seen a substantial increase in women's presence in newsrooms (Carter et al. 1998; De Swert and Hooghe 2010; Sebba 1995). According to a recent report by the American Society of News Editors (2017), the rate of women's representation in U.S. journalism in 2017 was 38.9% of all reporters, photographers, editors, producers, and supervisors. Various scholars have suggested that the growing presence of women in newsrooms, in particular in managerial roles, should improve both the presence of women in news stories and the ways in which women are portrayed (Pantin 2001; Wood 1994), and some have reported that this is indeed

Electronic supplementary material The online version of this article (<https://doi.org/10.1007/s11199-018-0975-8>) contains supplementary material, which is available to authorized users.

✉ Eran Shor
eran.shor@mcgill.ca

¹ Department of Sociology, McGill University, 855 Sherbrooke Street West, Montreal, Quebec H3H 2J2, Canada

² Department of Social and Behavioural Sciences, Universiteit Utrecht, Utrecht, Netherlands

the case (Beam and Di Cicco 2010; Jolliffe and Catlett 1994; Kim and Yoon 2009). Others, however, are more skeptical, suggesting that masculine reporting traditions, gender discrimination, and sexism may prevent changes in organizational cultures and practices, even when women enter these organizations in greater numbers and reach management positions (Acker 1990; Lavie and Lehman-Wilzig 2005; van Zoonen 1998; Yoder 1991).

Recently, a number of studies have explored issues of gender representation in the news using systematic large-scale data collection and analysis techniques (Flaounas et al. 2013; Jia et al. 2016; Shor et al. 2014a, b, 2015; van de Rijt et al. 2013). In agreement with previous smaller-scale analyses, these studies reported gender imbalance in newspapers, with men occupying the majority of managerial positions, writing the majority of stories, serving as the primary sources of information, and being mentioned much more often than women are. Shor et al. (2015), who explored the possible reasons for the consistent underrepresentation of female names in the news, found little evidence that the gender of editors or the gender composition of editorial boards consistently affected the share of female names in the news. They concluded that the gap in representation is largely the result of real-world structural inequality; the media focuses nearly exclusively on the highest strata of occupational and social hierarchies, in which women's representation remains poor.

Although the gender composition of newsrooms appears to play a minor role in women's coverage rates, it remains plausible that the impact of editors' gender is not in terms of the quantity of coverage for women, but rather in terms of the quality of coverage for both women and men. In other words, even if women who reach editorial positions are bounded by real-world hierarchies, and therefore unable to change coverage rates for women in the news, they might still be able to influence the *tone* of coverage and the sentiment associated with the people who appear on the news. More specifically, some have suggested that although media have a general tendency toward negativity in news coverage (Aday 2010; Lengauer et al. 2011; Schudson 1999), this tendency might be moderated when women come to occupy central positions in media organizations. This is because women may bring with them a lighter and less critical coverage style (Beam and Di Cicco 2010; Chambers et al. 2004), in particular when covering other women. Such a shift may be especially relevant given the rich literature showing that women and minorities are particularly likely to suffer from media coverage that devalues and problematizes their achievements (Fowler and Lawless 2009; Halvorson 2015; Meeks 2013; Shor 2008, 2010; Shor and Yonay 2010, 2011, 2014).

In the present study, we examine whether changes in the gender composition of newsrooms are associated with changes in the coverage sentiment of individuals more generally, and in particular of women. We rely on a data collected by

the Lydia text analysis system (Bautin et al. 2010). This computerized system performs named entity recognition, classification, and analysis of text corpora. A person's coverage sentiment is measured as the average classification of words (positive or negative) co-occurring with that person's name in newspaper text. We examine the coverage patterns of 212 newspapers, representing most of the U.S. states, over a period of 6 years. We track down changes in newsroom personnel over this period and examine whether these changes are associated with a shift in coverage tone.

Our study offers a few important contributions and improvements over previous research in this field. It is the first known study to examine the relationship between newsroom composition and coverage sentiment on a large scale, moving from the question of *what* topics and people are covered to the question of *how* they are covered. Our large sample of newspapers also allows us to compare larger newspapers with smaller ones and to examine various measures for women's presence in the newsroom, including publishers, managing editors, executive editors, the share of women on editorial boards, and the attainment of a critical mass threshold. Finally, ours is only the second known study (following in the footsteps of Beam and Di Cicco 2010) to examine managerial changes within the same newspaper over time and the effects of these changes on coverage patterns.

Editor's Gender and Overall Tone of Coverage

Although the literature on the relationship between reporters' demographics and the content of their reporting remains inconclusive, on-the-ground attempts at diversification of newsrooms proceed as if the issue were settled (Bissell 2000; Craft and Wanta 2004; Theberge and Cronk 1986). Theoretical arguments about the importance of editors' gender to coverage patterns often originate in cultural feminist theories that stress gender-based differences in worldviews, whether essentialist or developed through a process of gendered socialization. According to this theoretical reasoning, women hold a unique set of opinions and interests, which often stand in opposition to those of men. Whereas men tend to emphasize competition, leadership, domination, aggressiveness, decisiveness, independence, and the use of force to settle disputes, women tend to value principles like cooperation, non-violent conflict settlement, peace, compassion, emotionality, honesty, congeniality, and altruism (Donovan 2000; Meeks 2013). Linguistic scholars who subscribe to this gender-as-culture hypothesis argue that the language used by men and women represents two separate cultures. Whereas women exhibit an indirect style of language, which fosters relationship building, men exhibit more direct styles, with judgmental adjectives that indicate impatience or rudeness and isolate others (Mulac et al. 2001).

Some mass communication scholars have adopted a similar reasoning, arguing that female writers and editors hold a different set of values than their male colleagues do. van Zoonen (1998), who interviewed female journalists, reports that they often reject the detachment and insensitivity associated with the male practice of journalism. Rather, they believe that the masculine norm of “objectivity” often serves as an excuse to exclude compassion and humanity from news stories. Similarly, Gallego et al. (2004) talk about the macho nature of Spanish media newsrooms and their masculine socialization processes, which downplay “female-associated concerns” such as people’s emotional and private lives and the more positive aspects of news stories. Others agree that male editors may be more likely to view feminine or soft news items as less important (Lavie and Lehman-Wilzig 2005; Smith and Wright 1998). Lavie and Lehman-Wilzig (2005), who interviewed Israeli female editors, argue that these editors put greater emphasis on audiences’ demands for softer and more positive news, in contrast with their male colleagues, who expressed firm loyalty to “professional” standards, notwithstanding audience wishes. Studies on female journalists and editors in the United States report similar tendencies (Haworth 2000; Weaver 1997).

Although these interviews with women editors are revealing, they do not necessarily suggest that women editors and publishers will be able to influence the tone of coverage in their newspaper. That is, to understand why these individuals might influence coverage, we need to elucidate the mechanisms through which the gender identity of individual editors might translate into different coverage patterns and coverage tone. In the following, we outline some of these possible mechanisms and explain why one might therefore expect newspapers led by women to have a coverage tone that is more positive. We should note, however, that different newspapers have different operational and hierarchical structures. In some, executive editors have great autonomy in deciding on content, whereas in others, publishers or owners might be more involved and sometimes even dictate editorial policies. That said, in most newspapers, editors (in particular) and publishers (to a lesser extent) are the primary decision makers. Oftentimes, especially in bigger newspapers, decisions are made through various degrees of consultation with an editorial board.

First, given female editors’ statements about their preferences for more positive news, we may expect them to provide direct instructions to journalists regarding the stories on which they should focus and the ways in which they should write about these stories. Second, if indeed female editors declare that they are interested in highlighting the positive aspects of news stories, we may expect the journalists working under them to self-monitor and produce stories that are more positive, even without direct instructions to do this. Indeed, Breed (1955) has long noted that journalists are well aware of the desires, demands, and expectations of their editors and publishers and try to follow these expectations. Third,

during the editorial process, female editors may give preference to stories that focus on the positive aspects of the news. They will be more likely to choose such stories for publication and to place them on the front page. Supporting this proposition, Craft and Wanta (2004) found that newspapers edited by men were more likely to devote significant portions of their coverage to crime news. Finally, the gender of publishers and editors may also affect hiring decisions because female editors may feel more sympathy for female reporters because they faced similar obstacles early in their careers (Craft and Wanta 2004). This is important because some studies have found that female reporters are likely to adopt a more positive tone of coverage when compared with their male counterparts (Cho 2005; Kim and Yoon 2009; Rodgers and Thorson 2003).

Previous empirical research offers some support for these propositions. First, Shor et al. (2015) found that newspaper sections edited by women were more likely to cover female names. However, the authors also note that this effect is likely the result of certain sections (such as the entertainment section) being more likely to both appoint women as section editors and write about women. More relevant to the current study, Pantin (2001) reported on a UNESCO initiative in which women across the world took key editing positions for one day. Examining the case study of the *Wichita Falls Times Record News*, he concluded that when women have decision-making power, the news looks different: There are more stories that focus on social issues rather than on politics or crime. Similarly, Beam and Di Cicco (2010) found that when women replaced men as managing editors, their newspapers had fewer direct leads (indicating hard-news stories) and more indirect leads, which indicate stories that are likely to be more people-focused and provide more depth and context. We therefore suggest that when women become publishers or editors of a newspaper, the newspaper will be more likely to use a positive tone when covering individuals in the news (Hypothesis 1).

Coverage of Women by Women

Although the literature we surveyed suggests that women in editorial and managerial roles may change the overall coverage tone of newspapers, some scholars have focused more specifically on the interaction between the gender of the editor and the gender of individuals in the news. Most of this literature suggests that the effect of women in editorial roles may be especially salient for the coverage of women in their respective newspaper or newspaper section.

Media scholars often accuse the media of portraying women, in particular professionally successful women, in negative and unflattering ways. They charge that the media heavily focus on a host of negative or limiting aspects of women,

including intense scrutiny of their performance, skills, and looks in a way that trivializes and undermines them (Heldman et al. 2005; Kahn 1994; Krefting 2002). Media reports also include a host of negative stereotypical depictions, emphasizing working women's gender non-conforming, "unladylike" and irrational behaviors and demeanors. These include their presumed inability to balance work and family life, how "catty", "bossy", "bitchy", "ball-busting" "hysterical" and "demanding" they are, and how they will throw others under the bus in order to rise to the top (Braden 1996; Caprino 2014; Falk 2010; Fowler and Lawless 2009; Goddu 1999; Grogan 2014; Joo 2002; Saner 2014; Sanghani 2017). Halvorson (2015) argues that the media create a binary in which working women are perceived as either competent but cold (also "bossy," "bitchy," "pushy," "frigid" and "ball-busting"), or as warm but incompetent, illogical, and irrational; the doormat who no one takes seriously (also "ditsy," "silly," "airhead," or "emotional").

Certain critics further offer that media created by women and for women would be more likely to celebrate successful women's competence, intelligence, strength and bravery rather than focus on negative qualities and images (Caprino 2014). Female editors, they suggest, would be able to bring forward women's issues and present more positive portrayals of women (McCormick 1991; Rykken 1989). Or as Julia Wood (1994, p. 235) writes, "if more women had positions of authority at executive levels, media would offer more positive portrayals of women." Some of the empirical research on newspapers edited by women appears to offer support for these claims. Jolliffe and Catlett (1994) studied seven women's magazines between 1965 and 1985 and compared coverage patterns in magazines where women served in editorial roles to coverage patterns in magazines where men were the editors. They found that although the presence of women editors did not reduce overall stereotypical portrayals, it did increase positive portrayals of women. Research in South Korea further suggests that compared with male journalists, female journalists were more likely to use a positive tone in describing women in the news (Kim and Kim 2005), and in particular women in politics (Joo 2002; Kim and Yoon 2009). To our knowledge, these studies in South Korea were the only empirical studies examining coverage in publications geared toward both men and women. Altogether, these studies lead us to hypothesize that when women become publishers or editors of a newspaper, the newspaper will be more likely to use a positive tone, particularly in its coverage of women (Hypothesis 2).

Newsroom Composition

Although differences in media sentiment may be the result of individual-level characteristics and gender-as-culture, some organizational sociologists and media scholars have argued for a

more structural effect. In this view, there is an interaction between agency and structure in media organizations, and individuals' abilities to make a difference are constrained by the organizational environment in which they operate (Rodgers and Thorson 2003). Men's dominance in most organizations (in terms of both numbers and ideology) may thus curtail the ability of individual (women) journalists to produce real change.

More specifically, many have commented on the strength and persistence of masculine culture and norms in the newsroom. According to Phalen (2000), women in management positions are often pressured to adopt certain management styles that reflect men's priorities above their own. Indeed, some management studies have contended that people perceive a masculine style of management as better and believe that good managers are those who adopt this style, which emphasizes control, strategy, analysis, and lack of emotion (Harriman 1996; Powell 1993). More recent research, however, presents a more complex relationship. According to Koenig et al. (2011), although the masculinity of leader stereotypes is well demonstrated overall, it has decreased over time and is contingent on contextual factors, varying according to the identity of those forming the stereotype and the organizational domain (see also Cabrera et al. 2009, for a discussion of the effects of organizational domain). Still, research focusing on female managers in journalism has argued that the historical dominance of men in editorial positions has created power structures in which women are expected to conform to traditional male-dominated editing norms (Rodgers and Thorson 2003). Therefore, even when women do reach positions of power, this often does little to change existing coverage norms (Jolliffe and Catlett 1994).

Indeed, some small-scale empirical studies on female editors have questioned their ability to influence the subjects and content of coverage. Craft and Wanta (2004), for example, found that editors' gender had only a mild effect on patterns of coverage. Shoemaker and Vos (2009) conclude that there is little evidence for direct links between the gender of journalists and editors and variations in media contents because journalistic routines appear to wash out those differences. This view also receives support by the large-scale analysis of Shor et al. (2015), which reported no effect for individual section editors and executive editors on the share of female names in the news (although their study did not examine the effect of editors on coverage tone, on which much of our theoretical literature focuses).

These findings may lead one to conclude that the gender of newsmakers is irrelevant to the kind of news they produce. However, some sociologically oriented media research suggests that this may not be the case and that, in fact, the potential for change depends not on the identity of individual publishers and editors, but rather on the cumulative effect of a larger proportion or a critical mass of women in newsrooms. Only when they reach larger numbers can women begin

changing the masculine cultures of newsrooms and produce more female-oriented positive news reports on issues that are of greater relevance and interest to women.

Share of Female Editors

One possible way to shift away from the presumed masculine cultural norms of news-making might be through a greater proportion of women on editorial boards. News production is usually a product of team effort, with a delicate balance between organizational demands and the views of reporters, editors, producers, and publishers. The final product is the result of staff work and is normally dependent on the decision of multiple actors rather than a single individual (Lavie and Lehman-Wilzig 2005). In order to change the well-entrenched masculine norms we described, it may be that newspaper's editorial boards must include a higher proportion of women rather than simply a single, and often isolated, executive editor who is a woman.

This idea has received some support from empirical research. Craft and Wanta (2004), for example, who looked at the percentage of female editors in 30 American newspapers, reported that papers with predominately male editors contained news with a more negative focus compared with papers where women had a more salient presence. Kim and Kim (2005) analyzed a more specific set of news stories: those focusing on women in the news. They found that in newspapers with a higher percentage of female journalists, male journalists tended to use a less negative tone for women. Finally, Shor et al. (2015) found that the proportion of women on editorial boards makes a difference for the amount of coverage that individuals with a female name receive in the news, although this effect diminishes and is no longer significant when looking more specifically at changes within a given newspaper. We then predict that when women's proportional representation on editorial boards increases, the newspaper will more likely use a positive tone, particularly in its coverage of women (Hypothesis 3).

Critical Mass

Some scholars have further suggested that simply examining the percentage of women on editorial boards is not enough. Rather, what we should be looking for is a critical mass of women journalists who occupy key positions in the newspaper (i.e. a sufficient number of women so that the change in organizational culture and growth in women's representation becomes self-sustaining and creates further change and growth). They argue that the failure of some previous studies to capture an effect for women in the newsroom may be due to the fact that in most newspapers they have not yet reached a critical mass (Kim and Yoon 2009). Correa and Harp (2011)

suggested that when women reach a critical mass within a news organization, they are in fact able to counteract masculine hegemonic norms in many aspects of the news-making processes, including space, prominence, and sourcing. Gender-balanced newspapers also offer more diverse narratives in their coverage. Everbach (2006), who studied the *Sarasota Herald-Tribune* when it was led by an all-female management team, found that the culture of the newsroom reflected so-called feminine traits—more teamwork and consensus, less hierarchy, more family friendly, and employers holding a more positive attitude about the organization.

At what percentage of women has a critical mass been reached? The studies mentioned here and others often do not specify this threshold. One specific quantification that is often cited in the literature originates in Kanter's (1977a, b) theory of tokenism and proportional representation in corporate settings. Kanter was among the first to suggest that differences in organizational behavior are due to structure rather than to the individual characteristics of men and women. According to her critical mass theory (see also Childs and Krook 2008; Etzkowitz et al. 1994; Izraeli 1983), when women constitute less than 15% of a group (a skewed group), men have complete control over the group and its culture. When women consist of 15 to 35% of a group (tilted groups), opportunities for alliances and coalitions start to form and they are able to begin changing the culture of the group and address gendered concerns. Finally, when women compose more than 35% of the group (balanced group), the group's outcomes are increasingly related to group members rather than to the group's gender composition. We might therefore expect a change in newspapers' organizational cultures when the proportion of women reaches certain critical mass levels rather than simply when their proportion on editorial boards increases. Specifically, we expect that there exists a critical mass of 35% female editors, above which a newspaper's coverage sentiment becomes more positive, particularly where its coverage of women is concerned (Hypothesis 4).

Institutional Constraints and Gendered Organizations

The scholarly work we reviewed suggests that when women reach positions of power in organizations or when they enter such positions in large enough numbers, they should be able to significantly change organizational culture and norms. However, prominent theoretical and empirical work by organizational sociologists has challenged these ideas. First, the work of Kanter (1977a, b) and the ideas of tokenism, proportional representations, and emphasis on numbers have been criticized by other feminist organizational scholars (Acker 1990; Britton and Logan 2008; Risman 2004; Yoder 1991). Some have suggested that Kanter's suggested

threshold of 35% may not be high enough (Paustian-Underdahl et al. 2014). Even more, recent experimental work has shown that greater presence of women on evaluation committees resulted in women candidates being significantly *less* likely to be hired, probably because committees with a majority of women in them tend to overestimate the quality of male candidates (Bagues and Esteve-Volart 2010).

For others, the focus on numeric gender imbalances itself is misguided because it fails to reflect the complexities of gender discrimination in the workplace. The main problem, according to Yoder (1991), is not number imbalance, but rather sexism. Moreover, tokenism is clearly not gender-neutral and not all tokens are disadvantaged. More specifically, studies on token men in organizations with a majority of women show that they do not share the negative experiences of token women (Benokraitis and Feagin 1994; Floge and Merrill 1986; Fottler 1976; Johnson and Schulman 1989). In fact, most of them enjoy significant advantages and enhanced opportunities for promotion (Alvesson and Billing 2009; Grimm and Stern 1974; Simpson 2004; Williams 1992, 1995; Yoder and Sinnett 1985; Zimmer 1988).

Acker (1990) has suggested that the problem with Kanter's (1977a, b) theory of tokenism and with other early feminist writings on gender and organizations (e.g., Ferguson 1984) is that they treat organizations as gender-neutral and asexual. That is, although Kanter has made an important sociological contribution by highlighting the role of structure rather than the individual characteristics of women and men, her analysis remained incomplete because it treated gender as standing outside of structure. Instead, Acker argued that organizations themselves are gendered, that is, that all the aspects and processes of the typical organization are gendered. These aspects include constructed divisions along the lines of gender (e.g., allowed behaviors and physical space divisions), gendered symbols and images (e.g., language, ideology, dress), gendered identities, organizational logic, and various organizational interactions. Acker further highlighted the common construction of a bodiless abstract worker who occupies a gender-neutral job. This worker has no body, no sexuality, no emotions, and does not procreate, helping to both obscure and reproduce the underlying gender relations.

Others have noted that gendered inequalities are built into organizations regardless of whether it is men or women who have a token status (Alvesson and Billing 2009; Britton and Logan 2008). According to Reskin (1988), men resist women's equality at the workplace because it undermines differentiation and boundary maintenance and, consequently, male dominance. Indeed, studies show that when women move in greater numbers into traditional men-dominated jobs, such as law, management, healthcare, counseling, and earlier on teaching, both the status of the profession as a whole and the division of labor within it shift (Reskin and Roos 1990). The occupational status of teaching, for example, has suffered

with the growing entrance of women into the profession (now often referred to as a semi-profession). At the same time, the profession has been highly stratified and segmented, with a male-dominated senior hierarchy (Bolton and Muzio 2008).

These objections to the idea that gender representation would significantly help alter organizational behavior are consistent with the general view that gender roles are more complex than the basic notion that men favor one approach whereas women favor another. There are different notions of femininity and masculinity that are not all products of biological sex differences (Butler 1990; Skar 2004; West and Zimmerman 1987). Indeed, as Glasser (1992) has pointed out, differences in race, gender, and ethnicity are not necessarily the same thing as differences in experiences, which might yield differences in thought and action. Women who are successful in organizations need not be representative agents of their gender; indeed, their uniqueness may sometimes help explain their success in masculine environments.

This body of work highlights the fact that gendered practices and ideologies are so deeply entrenched in most organizations that even significant changes in top-level personnel and number-balancing might not lead to visible changes in power structures and organizational cultures. To the extent that these insights hold for media organizations (and media scholars have argued that they often do), we would not expect changes at the top or in the proportion of women to have a significant effect on coverage patterns.

Unique Contributions of the Current Study

Our study offers a few significant conceptual and methodological improvements over previous research in the field. First, ours is the first known study to examine the relationship between newsroom composition and coverage sentiment on a large scale. Shor et al. (2015) recently analyzed the effects of newsroom composition on the ratio of coverage for individuals with a female name in 193 newspapers, finding that female editors and gender-balanced newsrooms had little impact on the coverage ratio for women. The authors did not assess gender differences in coverage sentiment. Yet, scholarship has suggested that it is precisely in the quality of coverage—not its quantity—where women in managerial roles might really make a difference (Beam and Di Cicco 2010; Caprino 2014; Kim and Kim 2005; McCormick 1991; Wood 1994).

Second, we analyze a much larger number of newspapers than the number analyzed in previous studies. Beam and Di Cicco (2010), who conducted a study of editorial changes in 20 small daily newspapers, suggested that in order to avoid Type II errors due to insufficient statistical power and unrepresentative samples, future studies would need to increase the number of newspapers in the sample and include in it both smaller and larger newspapers. Our study follows this

recommendation, examining 212 U.S. national, regional, and local newspapers. (See Table 1s of online supplement 1 for the full list.) Our larger sample also allows us to compare multiple measurements for women's presence in newsrooms. Although prior studies have looked at the effect of individual editors (Beam and Di Cicco 2010; Jolliffe and Catlett 1994), the rate of women in newsrooms and managerial roles (Craft and Wanta 2004; Kim and Kim 2005), or the attainment of a critical mass (Correa and Harp 2011; Everbach 2006), we are able to look at all of these measures and compare their relative contribution to changes in coverage. Our analyses examine the role of female section editors, managing editors, executive editors, the fraction of women on editorial boards, and the attainment of a critical mass threshold.

Another important contribution of our study is its longitudinal analysis. Most previous studies on this issue have been either case studies (Everbach 2006; Pantin 2001) or comparative cross-sectional analyses in which the coverage of newspapers with male editors was compared to the coverage in papers with female editors or a larger presence of women in the newsroom (Correa and Harp 2011; Craft and Wanta 2004; Kim and Yoon 2009; Rodgers and Thorson 2003). Although such cross-sectional studies have yielded important insights, they have difficulty in establishing causality. Newspapers with women editors may also show more positive coverage because female editors are preferentially hired by newspapers that bring more positive news, such as those with an a priori stronger focus on entertainment, arts, and health. To our knowledge, Beam and Di Cicco (2010) conducted the only study so far that examined changes within the same newspaper over time. They compared ten newspapers in which women replaced men as managing editors to ten papers where men remained managing editors throughout the duration of the study, finding minor changes in the papers at which women became managing editors. Our study expands on their study, using a much larger sample of newspapers, articles, and measures for women's presence in the newsroom.

Finally, we examine a broader scope of people in different fields. Previous studies have chiefly focused on how gendered newsroom composition affects the coverage of a single issue in the news (Correa and Harp 2011; Meeks 2013) or on the potentially differential treatment of "female issues" and "male issues" (Beam and Di Cicco 2010; Craft and Wanta 2004; Rodgers and Thorson 2003). Studies that focus on the specific coverage of people in the news tend to look at a narrow set of individuals, mostly politicians (Bystrom et al. 2001; Kahn 1994; Kahn and Goldenberg 1991; Kim and Kim 2005; Kim and Yoon 2009). Our study will be the first known to look at the coverage tone associated with thousands of individuals (both male and female) with different levels of fame. We are also the first to offer a computerized analysis of the sentiment associated with these individuals, allowing us to look at an unprecedented number of articles over a period of 6 years and

perform quantitative multivariate analyses, controlling for a number of potential confounds.

Method

Sentiment of Newspaper Articles

Our primary data source for analyzing newspapers' sentiment is the Lydia text analysis system (Bautin et al. 2010). Lydia provides time-stamped records of occurrences of person-names in the scanned and digital records of more than 2000 newspapers, magazines, and online news sources from 2004 to 2009. This period allowed a unique opportunity for researchers to access large-scale longitudinal data from the online editions of a large number of U.S. newspapers before most of these newspapers placed their content behind paywalls. For each name occurrence, Lydia provides the timestamp, newspaper, newspaper section, gender, and sentiment with which the name was mentioned. Lydia determines the gender of a named person through Anaphora Resolution. (See Part 3 of our [online supplement](#) for a detailed explanation of the gender classification process and for a table indicating the validity of this process for a random sample of names.) In the present analysis, we examine a subsample of this database, containing the 212 newspapers for which we were able to obtain data on our key newspaper-related variables, such as the names (and gender) of editors, publishers, and executive boards.

The Lydia system assigns scores indicating positive or negative sentiment to each distinct entity (name) in a text corpus—newspaper articles in our case. (For more details on this process, see Godbole et al. 2007.) From these scores, we calculated the percentage positive sentiment by taking for each newspaper in each year the total number of positive sentiment cases and dividing this by the total number of both positive and negative sentiment cases. Multiplying this by 100, we obtain a sentiment score ranging from 0 to 100, where 50 is neutral sentiment. We calculated this measure for women separately, for men separately, and for women and men together. Part 4 of our [online supplement](#) demonstrates the ability of this measurement instrument when applied to single individuals to identify traces of negative and positive events in the lives of celebrities in the temporal dynamics of coverage sentiment associated with these famous individuals. The supplement shows that sudden shifts in sentiment do indeed tend to co-occur with these events, providing support for the validity of our sentiment measure.

Part 5 of our [online supplement](#) lists the most common adjectives associated with women and men. Adjectives used in conjunction with female and male names are rather similar, suggesting that gender differences in qualitative dimensions of coverage sentiment may be more modest than previously suggested. Nonetheless, various discrepancies are consistent with gender differences identified in prior work on gendered

discourse, with “loving,” “wonderful,” “beautiful,” “beloved” and “safe” more often associated with women, whereas “guilty,” “offensive,” “responsible,” “fair,” and “critical” are more typical for men. Therefore, in our analyses we present distinct estimates for the media sentiment toward women and toward men, recognizing that these may reflect qualitatively different ways of reporting.

Newsroom Composition

For 212 of the newspapers for which Lydia provides count data, we were able to hand-code four alternative measures of gender composition in the newsrooms, all from the annual editions of the *Editor and Publisher International Yearbook* (Maddux, 2004, 2005, 2006, 2007, 2008, 2009). We coded data for: (a) the gender of newspaper publishers, (b) the gender of newspaper editors, (c) the proportion of females on the editorial board of a given newspaper in a given year, and (d) whether there is a critical mass of women on the editorial board. For the latter, we follow Shor et al. (2015) in using the 35% threshold of a “balanced group” as critical mass (Kanter 1977a, b).

Control Variables

We control for several contextual variables for which we were able to obtain data from various sources. These variables may account for differences in the sentiment that newspapers exhibit toward individuals with both a male and a female name. Although the literature does not make specific claims about the predicted effects of most of these variables, we believe it is important to examine them in order to better establish the robustness of our findings. However, we also ran robustness tests omitting these covariates, finding no substantial differences in the effects of our main variables of interest.

High-Ranking Political Positions

We coded information from 2004 to 2009 on high-level political positions in cities and states in which a newspaper appears. This includes data on (a) the proportion of female U.S. senators from a given state in a given year, (b) the proportion of women across all U.S. House Representatives from the state, (c) the proportion of women across all local state senate members, (d) whether the state had a female governor in a given year, and (5) whether the city had a female mayor in a given year. We expect coverage of these successful female politicians to be mostly positive, and therefore coverage for women in states and cities where women reached these positions in higher numbers should improve.

High-Level Business Positions

We collected data from the American Community Survey of the U.S. Census Bureau, estimating the proportion of female top executives across all top executives in the relevant state. As for politicians, successful businesswomen should receive mostly positive coverage, and therefore newspapers appearing in states where there are more of them should have better sentiment toward women. In Part 2 of our online supplement (see Table 2s), we present additional information on all of the dependent and independent variables included in our analyses. The table includes detailed data on the way we measured variables, the data sources from which they were gathered, and basic descriptive statistics for each variable.)

Analytic Strategy

Some of the data were not available for all newspapers for all years. Therefore, our panel data are unbalanced, but variations in sample size across years are modest. We present multivariate analyses of the relationship between newspaper’s newsroom composition and sentiment toward women and men. We estimate newspaper-level fixed-effects models, capturing how changes in the editorial board of a given newspaper over time are associated with changes in coverage patterns. Following standard practice in fixed-effects models, we also control for time fixed effects in all models using separate binary variables differentiating each of the years.

Because the time frame for which data are available is limited to 6 years, providing potentially insufficient variation for effect identification, we also re-estimated each newspaper-level fixed-effects model as a random effects model with newspaper-level random intercepts. Because the results for our main variables of interest in these models did not differ from the fixed-effects model results we present here, we chose not to include the random-intercept model results in the present paper. Because the significant correlation between our alternative measures of newsroom composition cause some concern for multicollinearity, we present separate analyses for each of these measures. We also found city size to correlate strongly with a measure of newspaper circulation. Because models including either of these control variables lead to similar test results, we present only models including city size in our analyses.

Results

Table 1 presents descriptive statistics on sentiment by gender and newspaper section. The table reveals that individuals with either a female or a male name mostly appear in a positive context (values larger than 50). The one exception is the news section, in which coverage of women is neutral whereas coverage of men falls significantly below the scale mid-point. As

Table 1 Mean article sentiment by gender of individuals covered in 212 U.S. newspapers, 2004–2009

Newspaper sections	Women	Men	Independent sample		
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>t</i> (<i>df</i>)	<i>p</i>	<i>d</i>
All sections	58.7 (8.38) ^a	54.8 (6.04) ^a	15.0 (1088)	< .0001	.45
News section	49.6 (10.7)	45.3 (7.71) ^a	11.9 (981)	< .0001	.38
Business section	54.0 (11.4) ^a	52.7 (6.69) ^a	2.99 (628)	< .01	.12
Entertainment section	66.1 (9.17) ^a	63.6 (7.33) ^a	6.3 (760)	< .0001	.23
Sports section	69.0 (9.78) ^a	63.0 (5.33) ^a	15.1 (729)	< .0001	.56

Sentiment scores represent the percentage positive sentiment, ranging from 0 to 100. Sentiment scores larger than 50 are net positive and those smaller than 50 are net negative

^a Means that are significantly different ($p < .05$) from the neutral mid-point of 50 as tested with one-sample *t*-tests

might be expected, coverage tends to be especially positive in the sports and entertainment sections of newspapers, where about two thirds of all references appear to be positive.

Turning to comparisons of coverage for women and men, Table 1 shows that across all sections of the newspaper, individuals with female names receive on average more positive coverage than those with male names. Looking within the specific sections of the newspaper, this pattern of more positive coverage for individuals with female over male names holds across the news, business, entertainment, and sports sections. The most meaningful difference in coverage, with a moderate effect size, is in the sports section, whereas smaller effect sizes are found for the business and entertainment sections.

In Table 2, we present nine models subdivided into three groups. The first set of three models contains results for all individuals; the second set, for individuals with female names; and the third set, for individuals with male names. To test Hypotheses 2–4, in each set, we begin with the inclusion of the female publishers and then sequentially add having a female executive editor (Model 1), the proportion of female executives (Model 2), and having a critical mass of female executives (Model 3). These three measures exhibit high multi-collinearity when included in the same model.

We predicted that newspapers in which women have a higher presence in leading editorial positions would exhibit more positive coverage patterns overall (Hypothesis 1) and in particular toward individuals with female names (Hypothesis 2). Our findings do not provide support for these suppositions (see Table 2). Our results show that when a woman replaces a male publisher or editor, coverage sentiment is not noticeably impacted. Neither individuals with female names nor those with male names receive more or less favorable coverage following such a change. We further examine effects of the proportion of female executives (Hypothesis 3) and the presence of a critical mass of female executives (Hypothesis 4) on the coverage sentiment. These hypotheses about coverage sentiment effects of female representation on editorial boards find some support in the analysis. An increase in the share

of women on an editorial board has a positive impact on coverage sentiment.

The effects of female representation on editorial boards are significant in the models for women both when using the proportion of female board members and when using the critical mass variable. A comparison of AIC and BIC fit statistics indicates that the critical mass model (Model 3) fits the data somewhat better, supporting Hypothesis 4 over Hypothesis 3. In separate analyses shown in Part 6 of the [online supplement](#) we estimated a piecewise model with dummy variables for different shares of female editors: 0–35%, 35–70%, 70%–100%, which indeed show a pattern that resembles a threshold relationship, consistent with Hypothesis 4. The effects are modest in size, however: A maximal shift from an all-male board (0) to an all-female board (1) improves sentiment of women's coverage by only about 3%. The linear (Hypothesis 3) and threshold (Hypothesis 4) effects both fall short of significance in the models for men or both genders. However, the gender difference is not significant, so the tentative conclusion is that there is evidence for a small positive effect on overall sentiment. As a robustness test, we also disaggregated the analysis into the four main sections of most newspapers: news, business, sports, and entertainment. We found no significant effects of critical mass on coverage sentiment in any of these subsections of the newspaper.

As for our control variables, Table 2 shows few robust associations, with one exception. A higher proportion of female business executives in the state is associated with a more positive coverage tone for individuals with female names. The effect size of approximately 20 is substantial, with a maximal shift from 0 to 1 resulting in a 20% jump in female coverage sentiment. The null results for most of the other predictors should be interpreted with caution because variations over time during the 6-year period of our study were relatively small for some of these measures. For example, during the 6 years captured in our analysis, 90% of the cities and states in which newspapers are located had no change in the gender of their mayor or governor.

Table 2 Newspaper fixed-effects regression predicting coverage sentiment in 201 U.S. newspapers, 2004–2009

	All person names			Individuals with female names			Individuals with male names		
	Model 1 <i>b</i> (<i>t</i>)	Model 2 <i>b</i> (<i>t</i>)	Model 3 <i>b</i> (<i>t</i>)	Model 1 <i>b</i> (<i>t</i>)	Model 2 <i>b</i> (<i>t</i>)	Model 3 <i>b</i> (<i>t</i>)	Model 1 <i>b</i> (<i>t</i>)	Model 2 <i>b</i> (<i>t</i>)	Model 3 <i>b</i> (<i>t</i>)
Female publisher	.59 (.68)	.65 (.75)	.65 (.75)	-.69 (-.46)	-.58 (-.38)	-.57 (-.37)	.95 (.82)	1.01 (.87)	1.00 (.86)
Female executive editor	.33 (.35)			.96 (.85)			-.14 (-.13)		
Proportion of female executives		1.70 (1.37)			3.18* (2.26)			2.29 (1.52)	
Critical mass of female executives (0 = at most 35%; 1 = above 35%)			1.02 (1.82)			2.09** (2.72)			1.06 (1.62)
Control variables									
Proportion of females among U.S. Senators from state	.08 (.01)	-.81 (-1.15)	-1.28 (-1.24)	-15.40 (-1.54)	-16.51 (-1.64)	-17.6 (-1.75)	-.32 (-.06)	-1.73 (-1.31)	-1.93 (-1.35)
Proportion of females among U.S. House Reps from state	1.02 (.36)	.98 (.35)	.95 (.34)	6.41 (1.79)	6.51 (1.83)	6.45 (1.82)	-1.93 (-.51)	-1.98 (-1.53)	-2.00 (-1.54)
Proportion of females among local state senate members	.97 (.31)	1.36 (.44)	1.10 (.36)	-5.88 (-1.18)	-5.10 (-1.07)	-5.57 (-1.12)	3.22 (1.38)	3.69 (1.55)	3.30 (1.43)
Female state governor	-1.47 (-1.73)	-1.56 (-1.93)	-1.46 (-1.77)	-.37 (-.21)	-.05 (-.03)	.14 (.08)	-1.87 (-1.88)	-2.06* (-2.18)	-1.91 (-1.95)
Female mayor	-.434 (-.43)	-.48 (-.48)	-.38 (-.38)	.42 (.25)	.33 (.20)	.54 (.32)	-.00 (-.00)	-.08 (-.07)	.05 (.04)
Proportion of females in state's top business executive positions	10.8 (1.63)	10.5 (1.60)	10.5 (1.60)	21.3* (2.39)	19.9* (2.25)	20.0* (2.28)	9.39 (1.37)	9.10 (1.34)	9.13 (1.33)
Observations (newspaper years)	997	1005	1005	997	1005	1005	997	1005	1005
Newspapers (<i>n</i>)	200	201	201	200	201	201	200	201	201
BIC (stat reported)	5508	5541	5540	6545	6588	6584	5762	5797	5798
AIC (stat reported)	5444	5478	5467	6482	6524	6520	5699	5733	5734

Constant and time fixed-effects are omitted from the table. BIC = Bayesian Information Criterion; AIC = Akaike Information Criterion

* $p < .05$. ** $p < .01$

Discussion

We conducted an analysis of the association between the gender composition of newsrooms and newspaper coverage sentiment. More specifically, we examined whether increasing women's presence in newsrooms (as editors of newspaper sections, executive editors, publishers, or on editorial boards) results in coverage that is more favorable to women. Our results first show that overall women receive coverage that is more positive in every coverage context. However, when examining the influence of individual actors within the newsroom, our results provide little support for claims that coverage sentiment (for women or otherwise) improves when women take top-managerial roles in the media. Indeed, when women replaced men in managing positions, this did not improve the coverage sentiment for individuals with female names in their newspapers.

The results for changes in group composition (the proportion of women in managerial positions) were more positive, suggesting that a slight change in newsroom culture might indeed occur in these cases. When more women become part

of editorial boards, the overall coverage tone slightly improves for individuals with female and with male names, although the effect is only significant for those with female names. This positive effect on the coverage of individuals with female names appears to follow an s-shape at the point where women's share in editorial boards reaches about one third, consistent with the theory of critical mass.

Overall, the results of our study lend some support to the notion that gender changes in the newsroom translate into changing sentiment in news coverage. The mere presence of women in boardrooms may lead to some changes in coverage norms, in particular those related to the coverage of women, and this effect intensifies when women reach a critical mass. However, it is also important to note that this is a modest effect and that when women reach the very top positions in media organizations, this usually does not result in a substantial change in coverage sentiment. These results complement those of Shor et al. (2015), who showed that individual editorial changes had only a small effect on the rate of coverage for women in the news. Together, these studies show that the gender composition of newsrooms does not considerably

affect either the quantity of women's representation in the news or the tone with which they are covered. Such findings point to the limited ability of individuals or even groups within organizations—media organizations in this case—to impact organizational culture and norms in a substantial way.

But why is it that changes in the gender composition of newsrooms often leave coverage patterns unaffected? One possible explanation is that those women who reach positions of power are not truly interested or more invested in changing coverage or coverage norms in favor of women and female topics (Craft and Wanta 2004). Many women who make it to the top may be more similar in many respects (e.g. race, education, and socio-economic status) to the men at the top than they are to the larger population of women. Furthermore, even if successful women do identify primarily with other women, studies in social psychology have shown that members of minority groups often adopt the hegemonic ideology, denigrating and stigmatizing their own group, while showing a positive attitude toward the dominant group (Correa 2009; Correa and Harp 2011; Tajfel and Turner 1979). According to Splichal and Garrison (1995), those women who achieve management positions have been rewarded for conformity to hegemonic (masculine) journalistic values. Even if these women declare that they embrace different values and wish to make a change in organizational culture (Gallego et al. 2004; van Zoonen 1994), this declaration does not mean that they actually follow up on these statements because they internalize the predominant news tradition (Lavie and Lehman-Wilzig 2005). This interpretation is supported by our findings about the importance of a critical mass to changes in coverage. Although individual women find it very hard to change deeply entrenched cultural practices even when they reach the very top of the organization, the existence of a larger group of women in key positions appears to have a more substantial effect because it likely allows them to offer mutual support in revising the organizational norms of coverage.

Finally, theories of social movements, organizational sociology, and the sociology of the media offer another mechanism limiting female newsroom managers' ability to achieve different patterns of coverage. Starting in the 1970s, sociologists have highlighted the nature of news routines and professional expectations, charging that these stifle the voices of individual journalists and editors. These norms and routines include strict deadlines, a relatively fixed space for stories ("news holes"), and ideas about how a serious news story should look in terms of subject, depth, and coverage tone (Downs 1972; Gans 1972, 1980; Molotch and Lester 1974; Oliver and Maney 2000; Oliver and Myers 1999; Tuchman 1973). These ideas were shaped by men, but through a long process of institutionalization, they became the norm that defines good journalism. In other words, masculine norms of journalistic practice have come to be regarded simply as professional routines to which all journalists are expected to subscribe (Ross 2009; Ross and Carter 2011; van Zoonen 1998).

From this perspective, women in the media are often torn between conflicting norms: While they are expected to stay loyal to feminine values and try to remain "true women," they also need to show that they are good professional journalists, and the way to do this is by following the well-established (masculine) norms of journalism (van Zoonen 1998). Lavie and Lehman-Wilzig (2005) further argue that because women still need to look over their shoulder and constantly establish their professionalism, it would be harder for them to lead any changes in journalistic practices than it is for their male counterparts. Unlike men, who may feel freer to deviate from the norm and be flexible without their professionalism being constantly questioned, women journalists do not have a longstanding professional tradition on which to rely. Thus, when they change traditional practices, in particular when they seem to be pushing for more "feminine" reporting, it would sharpen their conflicts and self-doubts and expose them to greater criticism. These theories of competing identities, institutional constraints, and journalistic norms thus stand in opposition to the six hypothesis derived earlier.

Our study and findings make an important contribution to the sociological literature on gendered organizations (Acker 1990; Britton and Logan 2008; Yoder 1991) by extending the insights coming from this literature into another workplace context—that of newspaper organizations. We are unable to determine with any certainty why changes in the gender of managing personnel and the proportion of women in media organizations typically fail to substantially shift coverage patterns. Still, former studies on other media fields offer some insights into the potential processes and mechanisms through which gender norms and gender inequalities are maintained. Alvesson (1998), for example, studied the case of an advertising agency employing an equal number of women where organizational hierarchies were relatively flat. He still found a stark division of labor, where women held jobs regarded as feminine, such as the lower, coordinating, assisting, and practical roles, whereas men led and were in charge of the advertising projects and campaigns. He also found an emphasis on gender symbolism, sexual banter, and power relations. Ethnographic work of this sort is important in trying to understand why the promotion of women into managerial roles or the entrance of women in greater numbers into male-dominated workplaces often fails to change organizational culture and gender inequalities.

These insights reflect Risman's (2004) conceptualization of gender as a multilevel social structure. Within this structure, men and women may make individual decisions that are gender-progressive, but their ability to change the status quo is limited by macro-level gender inequality and gendered institutional norms. The findings are also consistent with the work of former gender and media scholars who have highlighted the media's rigid gender structures and resistance to change (Craft and Wanta 2004; De Swert and Hooghe 2010; Risman 1998;

Ross 2009; Ross and Carter 2011). Indeed, although women have been able to reach executive editor positions in about one quarter of all newspapers in our sample, and although editorial board positions are increasingly occupied by women, these changes do not appear to translate into significantly more favorable coverage of women in the news.

Limitations and Future Research Directions

Our study is the first known to examine the effects of both the gender of individual managers and the gender composition of the newsroom on the coverage tone for individuals with either female or male names using quantitative analyses and a large sample of national and local newspapers over multiple years. Still, there is room for further investigation. First, our measure for coverage sentiment is limited to the general tone of coverage. Future research may examine the context, depth, and human qualities associated with women and men because these are features that some associate with more feminized patterns of coverage. Moreover, it may be that women-led media are less likely to portray women in stereotypical roles, such as homemakers or victims (Beam and Di Cicco 2010). The study of images and photographs is also important, and new developments in computational analysis now offer a chance to examine these on a large scale (Jia et al. 2016). Future studies may thus examine whether photographs, in particular those depicting women, change and become less graphic or sexualized when women hold key positions in the media.

We found that, overall, women receive more positive coverage than men do, both overall and across all sections of the newspapers. However, this is not to say that coverage is biased positively toward women. Women are heavily underrepresented in roles that attract negative coverage—such as criminals—and overrepresented in roles that attract mostly positive coverage—such as top models. It is therefore not surprising that they receive much more positive media coverage. Important limitations of our data and sentiment measure are their inability to differentiate between these roles and to pick up nuances in the positive coverage of women, where even positive words such as “pretty” can have a negative meaning when used in a discussion that should be about merit instead of looks.

One of the primary advantages of our analysis is its longitudinal aspect, allowing us to examine changes in the same newspaper over time. This longitudinal approach gives significant causal leverage. For example, had we found only that newspapers with more women on their editorial board have more positive sentiment in their coverage of women, then this could have simply reflected newspaper differences in the kind of news they cover. That is, we would expect the *Women's Wear Daily* (a fashion paper) to have more women on its board and focus more on women in a positive light than the *National*

Enquirer (a largely gossip paper), simply because fashion is a female-dominated field and mostly covered in a positive way.

Instead, our analysis looked at changes in editor gender within newspapers, holding newspaper-specific areas of focus and specialties constant. However, due to paywall limitations on access to more recent newspaper content, we were only able to analyze a period of 6 years. This period may not be long enough to assess the potential long-term effects of changes in the newsroom. It is quite plausible that gender changes in newsrooms eventually change organizational cultures and coverage patterns, but these changes are slow and gradual. Moreover, the 6 years may simply have provided insufficient variation in the gender of key newspaper personnel for the identification of small effects on coverage sentiment. Future research should therefore examine the long-term effects of gender changes in the newsroom.

Finally, as others have suggested (Beam and Di Cicco 2010; Craft and Wanta 2004), future research should continue to explore the mechanisms that facilitate or hinder change within news organizations. In other words, we need further research that moves beyond the examination of content and explores the circumstances and context in which it is produced. Interviews with both male and female journalists and editors may shed more light on the organizational constraints they face and on possible experiences of thwarted efforts at change.

Practice Implications

Our analysis broadly speaks to the question of whether efforts toward increasing the number of women in the media industry, especially in management and editorial positions, could influence the ways women are discussed in news coverage. Would a future presidential race between a male and female candidate be covered differently if more women were in charge of major newspapers? Our results suggest that such a demographic change in the population of newsmakers would have a positive but limited impact. We speculate that efforts at changing the masculine culture of the media may be more effective than efforts at changing the male-dominated composition of management and editorial boards.

Conclusion

Positive or negative news coverage can have significant consequences for the lives and careers of individuals. Using large-scale data on hundreds of U.S. newspapers over a period of 6 years, we have estimated the impact of changes in the gender of newspaper publishers and editors on women's and men's media coverage sentiment. We conclude that when the number of women on a newspaper's editorial board increases, their news coverage of women becomes somewhat more positive, while the coverage of men does not deteriorate.

Compliance with Ethical Standards

The paper fully complies with ethical standards.

References

- Acker, J. (1990). Hierarchies, jobs, bodies: A theory of gendered organizations. *Gender & Society, 4*(2), 139–158. <https://doi.org/10.1177/089124390004002002>.
- Aday, S. (2010). Chasing the bad news: An analysis of 2005 Iraq and Afghanistan war coverage on NBC and Fox News Channel. *Journal of Communication, 60*(1), 144–164. <https://doi.org/10.1111/j.1460-2466.2009.01472.x>.
- Alvesson, M. (1998). Gender relations and identity at work: A case study of masculinities and femininities in an advertising agency. *Human Relations, 51*(8), 969–1005. <https://doi.org/10.1177/001872679805100801>.
- Alvesson, M., & Billing, Y. D. (2009). *Understanding gender and organizations*. London: Sage.
- American Society of News Editors. (2017). *2017 Newsroom Diversity Survey*. Retrieved from <https://www.asne.org/diversity-survey-2017>.
- Anastasio, P. A., & Costa, D. M. (2004). Twice hurt: How newspaper coverage may reduce empathy and engender blame for female victims of crime. *Sex Roles, 51*(9–10), 535–542. <https://doi.org/10.1007/s11199-004-5463-7>.
- Ashley, L., & Olson, B. (1998). Constructing reality: Print media's framing of the women's movement, 1966 to 1986. *Journalism & Mass Communication Quarterly, 75*(2), 263–277. <https://doi.org/10.1177/107769909807500203>.
- Bagues, M. F., & Esteve-Volart, B. (2010). Can gender parity break the glass ceiling? Evidence from a repeated randomized experiment. *The Review of Economic Studies, 77*(4), 1301–1328. <https://doi.org/10.1111/j.1467-937X.2009.00601.x>.
- Baker, T. E., Aldrich, H., & Nina, L. (1997). Invisible entrepreneurs: The neglect of women business owners by mass media and scholarly journals in the USA. *Entrepreneurship & Regional Development, 9*(3), 221–238. <https://doi.org/10.1080/08985629700000013>.
- Bautin, M., Ward, C., Patil, A., & Skiena, S. (2010). Access: News and blog analysis for the social sciences. 19th International World Wide Web Conference (WWW 2010), Raleigh, NC.
- Beam, R. A., & Di Cicco, D. T. (2010). When women run the newsroom: Management change, gender, and the news. *Journalism & Mass Communication Quarterly, 87*(2), 393–411. <https://doi.org/10.1177/107769901008700211>.
- Benokraitis, N. V., & Feagin, J. R. (1994). *Modern sexism: Blatant, subtle, and covert discrimination* (2nd ed.). Englewood Cliffs: Prentice-Hall.
- Bissell, K. (2000). Culture and gender as factors in photojournalism gate-keeping. *Visual Communication Quarterly, 7*(2), 9–12. <https://doi.org/10.1080/15551390009363429>.
- Bolton, S., & Muzio, D. (2008). The paradoxical processes of feminization in the professions: The case of established, aspiring and semi-professions. *Work, Employment and Society, 22*(2), 281–299. <https://doi.org/10.1177/0950017008089105>.
- Braden, M. (1996). *Women politicians and the media*. Lexington: University of Kentucky Press.
- Breed, W. (1955). Social control in the newsroom: A functional analysis. *Social Forces, 33*(4), 326–355. <https://doi.org/10.2307/2573002>.
- Britton, D. M., & Logan, L. (2008). Gendered organizations: Progress and prospects. *Sociology Compass, 2*(1), 107–121. <https://doi.org/10.1111/j.1751-9020.2007.00071.x>.
- Butler, J. (1990). *Gender trouble: Feminism and the subversion of identity*. New York: Routledge.
- Bystrom, D. G., Robertson, T. A., & Banwart, M. C. (2001). Framing the fight: An analysis of media coverage of female and male candidates in primary races for governor and US senate in 2000. *American Behavioral Scientist, 44*(12), 1999–2013. <https://doi.org/10.1177/00027640121958456>.
- Cabrera, S. F., Sauer, S. J., & Thomas-Hunt, M. C. (2009). The evolving manager stereotype: The effects of industry gender typing on performance expectations for leaders and their teams. *Psychology of Women Quarterly, 33*(4), 419–428. <https://doi.org/10.1111/j.1471-6402.2009.01519.x>.
- Caprino, K. (2014, November). What's wrong with the media's portrayal of women today, and how to reverse it. *Forbes*. Retrieved from <http://www.forbes.com/sites/kathycaprino/2014/11/21/whats-wrong-with-the-medias-portrayal-of-women-today-and-how-to-reverse-it/#7860d3bc71b2>.
- Carlin, D. B., & Winfrey, K. L. (2009). Have you come a long way, baby? Hillary Clinton, Sarah Palin, and sexism in 2008 campaign coverage. *Communication Studies, 60*(4), 326–343. <https://doi.org/10.1080/10510970903109904>.
- Carll, E. K. (2003). News portrayal of violence and women: Implications for public policy. *American Behavioral Scientist, 46*(12), 1601–1610. <https://doi.org/10.1111/j.1460-2466.2007.00379.x>.
- Carter, C., Branston, G., & Allan, S. (1998). Setting new(s) agendas, an introduction. In C. Carter, G. Branston, & S. Allan (Eds.), *News, gender and power* (pp. 13–22). London: Routledge.
- Caul Kittilson, M., & Fridkin, K. (2008). Gender, candidate portrayals and election campaigns: A comparative perspective. *Politics & Gender, 4*(3), 371–392. <https://doi.org/10.1017/S1743923X08000330>.
- Chambers, D., Steiner, L., & Fleming, C. (2004). *Women and journalism*. London: Routledge.
- Childs, S., & Krook, M. L. (2008). Critical mass theory and women's political representation. *Political Studies, 56*(3), 725–736. <https://doi.org/10.1111/j.1467-9248.2007.00712.x>.
- Cho, S. (2005). A comparison of newspaper coverage of Korean female and male reporters. *Asian Communication Research, 2*(1), 92–109. <https://doi.org/10.1007/s11199-009-9686-5>.
- Correa, T. (2009). Does class matter? The effect of social class on journalists' ethical decision making. *Journalism & Mass Communication Quarterly, 86*(3), 654–672. <https://doi.org/10.1177/107769900908600312>.
- Correa, T., & Harp, D. (2011). Women matter in newsrooms: How power and critical mass relate to the coverage of the HPV vaccine. *Journalism & Mass Communication Quarterly, 88*(2), 301–319. <https://doi.org/10.1177/107769901108800205>.
- Craft, S., & Wanta, W. (2004). Women in the newsroom: Influences of female editors and reporters on the news agenda. *Journalism & Mass Communication Quarterly, 81*(1), 124–138. <https://doi.org/10.1177/107769900408100109>.
- De Swert, K., & Hooghe, M. (2010). When do women get a voice? Explaining the presence of female news sources in Belgian news broadcasts (2003–5). *European Journal of Communication, 25*(1), 69–84. <https://doi.org/10.1177/0267323109354229>.
- Donovan, J. (2000). *Feminist theory: The intellectual traditions* (3rd ed.). New York: Continuum.
- Downs, A. (1972). Up and down with ecology: The 'issue attention cycle'. *The Public Interest, 28*, 38–50.
- Etzkowitz, H., Kemelgor, C., Neuschatz, M., Uzzi, B., & Alonzo, J. (1994). The paradox of critical mass for women in science. *Science, 266*(5182), 51–54. <https://doi.org/10.1126/science.7939644>.
- Everbach, T. (2006). The culture of a women-led newspaper: An ethnographic study of the Sarasota herald-tribune. *Journalism & Mass Communication Quarterly, 83*(3), 477–493. <https://doi.org/10.1177/107769900608300301>.
- Falk, E. (2010). *Women for president: Media bias in nine campaigns*. ChampaignL: University of Illinois Press.

- Ferguson, K. (1984). *The feminist case against bureaucracy*. Philadelphia: Temple University Press.
- Flaounas, I., Ali, O., Lansdall-Welfare, T., De Bie, T., Mosdell, N., Lewis, J., ... Cristianini, N. (2013). Research methods in the age of digital journalism: Massive-scale automated analysis of news-content—Topics, style and gender. *Digital Journalism*, 1(1), 102–116. <https://doi.org/10.1080/21670811.2012.714928>.
- Floge, L., & Merrill, D. M. (1986). Tokenism reconsidered: Male nurses and female physicians in a hospital setting. *Social Forces*, 64(4), 925–947. <https://doi.org/10.1093/sf/64.4.925>.
- Fottler, M. D. (1976). Attitudes of female nurses toward the male nurse: A study of occupational segregation. *Journal of Health and Social Behavior*, 17, 98–110. <https://doi.org/10.2307/2136336>.
- Fowler, L. L., & Lawless, J. L. (2009). Looking for sex in all the wrong places: Press coverage and the electoral fortunes of gubernatorial candidates. *Perspectives on Politics*, 7(3), 519–536. <https://doi.org/10.1017/S1537592709990843>.
- Gallego, J., Altes, E., Cantón, M. J., Melus, M. E., & Soriano, J. (2004). Gender stereotyping in the production of news. In M. De Bruin & K. Ross (Eds.), *Gender and newsroom cultures: Identities at work* (pp. 43–62). Cresskill: Hampton Press.
- Gans, H. J. (1972). The famine in American mass-communications research: Comments on Hirsch, Tuchman, and Gecas. *American Journal of Sociology*, 77(4), 697–705.
- Gans, H. J. (1980). *Deciding what's news: A study of CBS evening news, NBC nightly news, Newsweek, and time*. New York: Vintage.
- Glasser, T. L. (1992). Professionalism and the derision of diversity: The case of the education of journalists. *Journal of Communication*, 42(2), 131–140. <https://doi.org/10.1111/j.1460-2466.1992.tb00785.x>.
- Godbole, N., Srinivasaiah, M., & Skiena, S. (2007). Large-scale sentiment analysis for news and blogs. Proceedings of the third international conference on weblogs and social media, 7(21), 219–222.
- Goddu, J. (1999). “Powerless, public-spirited women,” “angry feminists,” and “the muffin lobby”: Newspaper and magazine coverage of the Canadian advisory council on the status of women, the National Action Committee on the status of women, and REAL women of Canada. *Canadian Journal of Communication*, 24(1). <https://doi.org/10.22230/cjc.1999v24n1a1084>.
- Grimm, J. W., & Stern, R. N. (1974). Sex roles and internal labor market structures: The “female” semi-professions. *Social Problems*, 21(5), 690–705.
- Grogan, S. (2014). 8 ways the news media discredits female leaders. Retrieved from <http://www.dearvagina.com/8-ways-the-news-media-discredits-female-leaders/feminism/>.
- Halvorson, H. (2015). *No one understands you and what to do about it*. Harvard: Harvard Business Review Press.
- Harriman, A. (1996). *Women/men/management* (2nd ed.). Westport: Praeger Publishers.
- Haworth, J. (2000). Women in radio news: Making a difference. In J. Haworth (Ed.), *Women & Radio* (pp. 250–261). London: Routledge.
- Heldman, C., Carroll, S. J., & Olson, S. (2005). “She brought only a skirt”: Print media coverage of Elizabeth Dole's bid for the republican presidential nomination. *Political Communication*, 22(3), 315–335. <https://doi.org/10.1080/10584600591006564>.
- Izraeli, D. N. (1983). Sex effects or structural effects? An empirical test of Kanter's theory of proportions. *Social Forces*, 62(1), 153–165.
- Jia, S., Lansdall-Welfare, T., Sudhahar, S., Carter, C., & Cristianini, N. (2016). Women are seen more than heard in online newspapers. *PLoS One*, 11(2), e0148434. <https://doi.org/10.1371/journal.pone.0148434>.
- Johnson, R. A., & Schulman, G. I. (1989). Gender-role composition and role entrapment in decision-making groups. *Gender & Society*, 3(3), 355–372. <https://doi.org/10.1177/089124389003003005>.
- Jolliffe, L., & Catlett, T. (1994). Women editors at the “seven sisters” magazines, 1965–1985: Did they make a difference? *Journalism Quarterly*, 71(4), 800–808. <https://doi.org/10.1177/107769909407100404>.
- Joo, J. H. (2002). *The influence of news frames on the audience's attitudes: Examining news stories on women cabinet members*. (Unpublished master's thesis). Seoul, Korea: Korea University.
- Kahn, K. F. (1994). The distorted mirror: Press coverage of women candidates for statewide office. *The Journal of Politics*, 56(1), 154–173. <https://doi.org/10.2307/2132350>.
- Kahn, K. F., & Goldenberg, E. N. (1991). Women candidates in the news: An examination of gender differences in US senate campaign coverage. *Public Opinion Quarterly*, 55(2), 180–199. <https://doi.org/10.1086/269251>.
- Kanter, R. M. (1977a). *Men and women of the corporation*. New York: Basic Books.
- Kanter, R. M. (1977b). Some effects of proportions on group life: Skewed sex ratios and responses to token women. *American Journal of Sociology*, 82(5), 965–990. <https://doi.org/10.1086/226425>.
- Kim, K. M., & Kim, Y. J. (2005). Coverage difference of female newsmakers among national newspapers: Influences of journalist gender and gender ratio in the newsroom. *Korean Journalism and Information Studies*, 29, 7–41.
- Kim, K. H., & Yoon, Y. (2009). The influence of journalists' gender on newspaper stories about women cabinet members in South Korea. *Asian Journal of Communication*, 19(3), 289–301. <https://doi.org/10.1080/01292980903039004>.
- Koenig, A. M., Eagly, A. H., Mitchell, A. A., & Ristikari, T. (2011). Are leader stereotypes masculine? A meta-analysis of three research paradigms. *Psychological Bulletin*, 137(4), 616–642. <https://doi.org/10.1037/a0023557>.
- Krefting, L. A. (2002). Re-presenting women executives: Valorization and devalorization in US business press. *Women in Management Review*, 17(3/4), 104–119. <https://doi.org/10.1108/09649420210425255>.
- Lavie, A., & Lehman-Wilzig, S. (2005). The method is the message: Explaining inconsistent findings in gender and news production research. *Journalism*, 6(1), 66–89. <https://doi.org/10.1177/1464884905048953>.
- Lengauer, G., Esser, F., & Berganza, R. (2011). Negativity in political news: A review of concepts, operationalizations and key findings. *Journalism*, 13(2), 179–202. <https://doi.org/10.1177/1464884911427800>.
- Maddux, D. (2004–2009). *Editor & Publisher international yearbook, 84th–89th eds*. New York: Editor & Publisher Company.
- McCormick, J. (1991, October). Making women's issues front-page news. *Working Woman*, p. 78–81.
- Meeks, L. (2013). He wrote, she wrote: Journalist gender, political office, and campaign news. *Journalism & Mass Communication Quarterly*, 90(1), 58–74. <https://doi.org/10.1177/1077699012468695>.
- Meyers, M. (1997). *News coverage of violence against women: Engendering blame*. London: Sage Publications.
- Molotch, H., & Lester, M. (1974). News as purposive behavior: On the strategic use of routine events, accidents, and scandals. *American Journal of Sociology*, 39(1), 101–112. <https://doi.org/10.2307/2094279>.
- Mulac, A., Bradac, J. J., & Gibbons, P. (2001). Empirical support for the gender-as-culture hypothesis: An intercultural analysis of male/female language differences. *Human Communication Research*, 27(1), 121–152. <https://doi.org/10.1093/hcr/27.1.121>.
- O'Hara, S. (2012). Monsters, playboys, virgins and whores: Rape myths in the news media's coverage of sexual violence. *Language and Literature*, 21(3), 247–259. <https://doi.org/10.1177/0963947012444217>.
- Oliver, P. E., & Maney, G. M. (2000). Political processes and local newspaper coverage of protest events: From selection bias to triadic interactions. *American Journal of Sociology*, 106(2), 463–505. <https://doi.org/10.1086/316964>.
- Oliver, P. E., & Myers, D. J. (1999). How events enter the public sphere: Conflict, location, and sponsorship in local newspaper coverage of

- public events. *American Journal of Sociology*, 105(1), 38–87. <https://doi.org/10.1086/210267>.
- Pantin, L. (2001, April). When women run newsrooms, women are in the news. *Wenews*. Retrieved from <http://www.womensenews.org/story/media-stories/010406/when-women-run-newsrooms-women-are-the-news>.
- Paustian-Underdahl, S. C., Slattery, L., & Woehr, D. J. (2014). Gender and perceptions of leadership effectiveness: A meta-analysis of contextual moderators. *Journal of Applied Psychology*, 99(6), 1129–1145. <https://doi.org/10.1037/a0036751>.
- Phalen, P. F. (2000). "pioneers, girlfriends and wives:" an agenda for research on women and the organizational culture of broadcasting. *Journal of Broadcasting & Electronic Media*, 44(2), 230–247. https://doi.org/10.1207/s15506878jobem4402_5.
- Powell, G. N. (1993). *Women and men in management*. Thousands Oaks: Sage Publications.
- Reskin, B. F. (1988). Bringing the men back in: Sex differentiation and the devaluation of women's work. *Gender & Society*, 2(1), 58–81. <https://doi.org/10.1177/089124388002001005>.
- Reskin, B. F., & Roos, P. A. (1990). *Job queues, gender queues: Explaining women's inroads into male occupations*. Philadelphia: Temple University Press.
- Risman, B. J. (1998). *Gender vertigo: American families in transition*. New Haven: Yale University Press.
- Risman, B. J. (2004). Gender as a social structure: Theory wrestling with activism. *Gender & Society*, 18(4), 429–450. <https://doi.org/10.1177/0891243204265349>.
- Rodgers, S., & Thorson, E. (2003). A socialization perspective on male and female reporting. *Journal of Communication*, 53(4), 658–675. <https://doi.org/10.1111/j.1460-2466.2003.tb02916.x>.
- Ross, K. (2009). *Gendered media: Women, men, and identity politics*. Lanham: Rowman and Littlefield.
- Ross, K., & Carter, C. (2011). Women and news: A long and winding road. *Media, Culture & Society*, 33(8), 1148–1165. <https://doi.org/10.1177/0163443711418272>.
- Rykken, R. (1989). Female editors offer different views of news. *Presstime*, p. 16–18.
- Saner, E. (2014, September). Feisty, flounce and bossy: The words used to put women down. *The Guardian*. Retrieved from <http://www.theguardian.com/lifeandstyle/2014/sep/01/feisty-flounce-bossy-words-put-women-down>.
- Sanghani, R. (2017, March). Feisty, frigid, and frumpy: 14 words we only use to describe women. *The Telegraph*. Retrieved from <http://www.telegraph.co.uk/women/womens-life/11067727/Downton-Abbey-row-14-words-we-only-use-to-describe-women.html>.
- Schudson, M. (1999). Social origins of press cynicism in portraying politics. *American Behavioral Scientist*, 42(6), 998–1008. <https://doi.org/10.1177/00027649921954714>.
- Sebba, A. (1995). *Battling for news: The rise of the woman reporter*. London: Hodder and Stoughton.
- Shoemaker, P., & Vos, T. (2009). *Gatekeeping theory*. New York: Routledge Press.
- Shor, E. (2008). Contested masculinities: The new Jew and the construction of black and Palestinian athletes in Israeli media. *Journal of Sport and Social Issues*, 32(3), 255–277. <https://doi.org/10.1177/0193723508316376>.
- Shor, E. (2010). In search of a voice: Arab soccer players in the Israeli media. In J. Calabrese (Ed.), *Sports and the Middle East: A special edition of viewpoints* (pp. 8–10). Washington, DC: The Middle East Institute.
- Shor, E., & Yonay, Y. (2010). Sport, national identity, and media discourse over foreign athletes in Israel. *Nationalism and Ethnic Politics*, 16(3–4), 483–503. <https://doi.org/10.1080/13537113.2010.527239>.
- Shor, E., & Yonay, Y. (2011). 'Play and shut up': The silencing of Palestinian athletes in Israeli media. *Ethnic and Racial Studies*, 34(2), 229–247. <https://doi.org/10.1080/01419870.2010.503811>.
- Shor, E., & Yonay, Y. (2014). Ethnic coexistence in deeply divided societies: The case of Arab athletes in the Hebrew media. *The Sociological Quarterly*, 55(2), 396–420. <https://doi.org/10.1111/tsq.12056>.
- Shor, E., van de Rijt, A., Ward, C., Askar, S., & Skiena, S. (2014a). Is there a political bias? A computational analysis of female subjects' coverage in liberal and conservative newspapers. *Social Science Quarterly*, 95(5), 1213–1229. <https://doi.org/10.1111/ssqu.12091>.
- Shor, E., van de Rijt, A., Ward, C., Blank-Gomel, A., & Skiena, S. (2014b). Time trends in printed news coverage of female subjects, 1880–2008. *Journalism Studies*, 15(6), 759–773. <https://doi.org/10.1080/1461670X.2013.834149#UnZ0YRbGaQI>.
- Shor, E., van de Rijt, A., Miltsov, A., Kulkarni, V., & Skiena, S. (2015). A paper ceiling: Explaining the persistent underrepresentation of women in printed news. *American Sociological Review*, 80(5), 960–984. <https://doi.org/10.1177/0003122415596999>.
- Simpson, R. (2004). Masculinity at work: The experiences of men in female dominated occupations. *Work, Employment and Society*, 18(2), 349–368. <https://doi.org/10.1177/09500172004042773>.
- Skar, N. (2004). *Women and the Middle East: Power through self-expression*. London: IB Tauris.
- Smith, L., & Wright, J. (1998). *Women in television news management: Do they make a difference?* Paper presented at the annual meeting of the Association for Education in Journalism and Mass Communication. Baltimore, MD.
- Splichal, S. L., & Garrison, B. (1995). Gender as a factor in newsroom managers' views on covering the private lives of politicians. *Mass Communication Review*, 22, 101–108.
- Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Monterey: Brooks/Cole.
- Theberge, N., & Cronk, A. (1986). Work routines in newspaper sports departments and the coverage of women's sports. *Sociology of Sport Journal*, 3(3), 195–203. <https://doi.org/10.1123/ssj.3.3.195>.
- Tuchman, G. (1973). Making news by doing work: Routinizing the unexpected. *American Journal of Sociology*, 79(1), 110–131. <https://doi.org/10.1086/225510>.
- van de Rijt, A., Shor, E., Ward, C., & Skiena, S. (2013). Only 15 minutes? The social stratification of fame in printed media. *American Sociological Review*, 78(2), 266–289. <https://doi.org/10.1177/0003122413480362>.
- van Zoonen, L. (1994). *Feminist media studies*. London: Sage.
- van Zoonen, L. (1998). One of the girls? The changing gender of journalism. In C. Carter, G. Branston, & S. Allan (Eds.), *News, gender, and power* (pp. 33–46). London and New York: Routledge.
- Weaver, D. H. (1997). Women as journalists. In P. Norris (Ed.), *Women, media and politics* (pp. 21–56). New York: Oxford University Press.
- West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender & Society*, 1(2), 125–151. <https://doi.org/10.1177/0891243287001002002>.
- Williams, C. L. (1992). The glass escalator: Hidden advantages for men in the "female" professions. *Social Problems*, 39(3), 253–267. <https://doi.org/10.2307/3096961>.
- Williams, C. L. (1995). *Still a man's world: Men who do women's work*. Berkeley: University of California Press.
- Wood, J. T. (1994). *Gendered lives: Communication, gender, and culture*. Belmont: Wadsworth.
- Yoder, J. D. (1991). Rethinking tokenism: Looking beyond numbers. *Gender & Society*, 5(2), 178–192. <https://doi.org/10.1177/089124391005002003>.
- Yoder, J. D., & Sinnett, L. M. (1985). Is it all in the numbers?: A case study of tokenism. *Psychology of Women Quarterly*, 9(3), 413–418. <https://doi.org/10.1111/j.1471-6402.1985.tb00890.x>.
- Zimmer, L. (1988). Tokenism and women in the workplace: The limits of gender-neutral theory. *Social Problems*, 35(1), 64–77. <https://doi.org/10.1525/sp.1988.35.1.03a00050>.