

New Media, Old Gender Bias?

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B.A. in English, December 2008, Arizona State University

A Thesis submitted to

The Faculty of
Columbian College of Arts & Sciences
of The George Washington University
in partial fulfillment of the requirements
for the degree of Master of Arts

May 19, 2013

Thesis directed by

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Acknowledgements

The author wishes to thank her thesis committee members, Sean Aday and Nikki Usher, for their direction and support. Special recognition goes to Kim Gross for taking on the role of adviser and offering invaluable guidance throughout the course of this study. The author would also like to thank Nathan Kalmoe for committing significant time and expertise to inter-coder reliability tests. I must finally express my enormous gratitude to my partner, Seth Tandler, for all his moral support over the past year, and to my friends and family for their unwavering confidence and love.

Abstract of Thesis

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The topic of female portrayals in the news once garnered considerable public and academic debate. That discussion raised concerns over both the lack of female representation and the nature of female portrayals. During the past decade, there has been a complete upheaval of the media industry, and online news now serves exponentially more readers than print news. Despite this change, online news has not been thoroughly assessed in terms of its gender portrayals. The time has come to revisit the question of female images in the media to see if the advent of online news is affecting female representation.

In this study, a 14-day sample of photos from the print front-pages and homepages of *The New York Times*, *The Washington Post*, and *USA Today* were coded for the presence of female stereotypes, counter-stereotypes, and whether women were shown in leadership roles. An analysis of the individuals appearing in these images found that slightly more women appear in online photos than in print, but a greater proportion of these women play stereotypical roles. Online news does not seem to be countering female stereotypes more effectively than print news despite increased space for women to appear. In fact, digitization of the news has introduced new variables into the decision-making processes of the newsroom that may be a detriment to the appearance of counter-stereotypical females.

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Introduction

In 2011, the feminist periodical *Ms.* discovered a pattern: Nancy Pelosi was seemingly absent from the covers of major U.S. news magazines, especially in comparison to other Speakers of the House. John Boehner appeared on five major magazine covers in his first 4 weeks as Speaker, including *Time*, *Newsweek*, *The Economist*, *The New Yorker*, and the *National Journal*. During Newt Gingrich's tenure, he made the cover of *Time* alone 5 times. So how many covers did Nancy Pelosi grace as the first-ever female Speaker of the House and the most politically powerful woman in U.S. history? Zero. Not once in her entire 4 years of service did she make the cover of *Time*, *Newsweek*, *The Economist*, or *The New Yorker* (Shields 2011).

Worse yet, no one seemed to notice; at least not until *Ms.* asked Pelosi to be their January 2011 cover story and heralded her as the "Most Effective Speaker Ever" for her facilitation of the Lily Ledbetter Act, Healthcare Reform, and overturning Don't Ask Don't Tell, among other bills. The article criticized other magazines for not covering Pelosi with the same intensity as some male Speakers. No one except for the editors of *Time* and *Newsweek* can explain why Pelosi never made the cover. It might not have been a conscious decision. It might have been due to some unknown, erroneous factors. Nonetheless, the failure to document such a major historic event for women implies a continued gender bias in U.S. news outlets, despite the increasing number of powerful females in society.

Women truly are making steady gains in achieving gender equality in the U.S. The number of women serving in Congress tripled over two decades from 32 in 1992 to 100 in the 113th Congress (Manning 2013). New Hampshire even became the first state

in history to have an all-female delegation (Seelye 2013). Among the overall population, women now earn nearly 34 percent more Bachelor's degrees each year than men according to the most recent U.S. Census data (Ryan 2012), and recently outpaced men in the number of Master's, Professional, and Doctoral degrees earned annually. A record 20 women headed Fortune 500 companies in 2012 – making up 4 percent of the list of American CEOs (Howard 2012). Women made \$.81 on the dollar compared to men in 2012, when as recently as 1990 women earned less than \$.50 on the dollar (Bureau of Labor Statistics 2012). In another landmark, U.S. female athletes in the 2012 Olympics not only outnumbered the men for the first time, but also won more medals (Raja 2012).

These shifting tides have coincided with rapidly advancing technology, which has deeply affected the news media. *Newsweek*, for example, recently halted all print production and is now entirely digital. Never again will they send a cover photo to the presses. Many other news outlets are struggling to survive because they failed to adapt to the new media environment. The desire to hold onto “traditional” news values made it difficult for many newsmakers to transition away from print. The progression of digital could not be stopped, and the majority of newspaper readership is now online. But, the persistence of out-of-date values might still be affecting our news content in other ways. The traditional definition of “newsworthy” has been known to sideline women by focusing on areas of sports, politics, and other topics that are historically dominated by men. With the increasing number of female leaders, an absence of women from front pages cannot be entirely blamed on society. Thus, research is needed to see if the role of women in the news is modernizing alongside technology and social trends.

Pelosi's story is of course just one instance of gender-related oversight, and it occurred in news magazines – not newspapers. We do not know if our major newspapers are demonstrating similar examples of bias. It also tells us nothing of female representation online. Not even the Global Media Monitoring Project (GMMP 2010), which was established by the United Nations to make news organizations around the world accountable for fair coverage of women, has yet been able to measure whether gender bias persists in U.S. digital news. The liquidity and constant updates that are possible with online media could provide space for greater diversity of coverage, including more frequent portrayals of empowered women. A content analysis of gender composition in both online and print photos is necessary to see if new media means new representations of women. My study fills this gap by comparing coverage of both the digital and print front pages in three national newspapers.

Research Questions & Hypotheses

The goal of this paper is to provide a thorough analysis of how women are portrayed in the front-page photos of online and print news in three national U.S. newspapers. Two primary questions guided the research:

RQ1: How often are women featured in print front-page and digital homepage news photos in comparison to men?

RQ2: Do front-page news photos more frequently portray women in leadership roles or stereotypical roles when roles can be identified? And is there a difference in the types of female roles portrayed in online news versus in print?

Equitable and counter-stereotypical representation of women in the news continues to be a national and global concern. The gender composition of online news has not been well studied, even as it has overtaken print in readership. The fluidity and space of the digital format seems to have made online news very visual in nature, so this study examines just photos, with some coding information coming from captions and headlines. The switch to digital may have affected “who” appears in the news since there is now more space on the front page for diverse content. For this reason, my first hypothesis expects the ratio of men to women in front page photos to be more equal online. In my second hypothesis, I anticipate a significant number of female leaders to appear due to the recent gains women have made in society, but expect that gender bias will still occur in the form of stereotyped portrayals exceeding the total number of

portrayals of counter-stereotypes. In other words, I anticipate that powerful women will frequently appear, but women who counteract stereotypes, such as female politicians, will be less likely to occur than woman in stereotypical roles, such as a politician's wife. It should be noted that women might fall into more than one category, e.g. A female CEO holding her child would be considered a leader (business), a counter-stereotype (businesswoman), and a stereotype (mother) all at once.

H1: I hypothesize that men will outnumber women in print front-page photos by at least a 3:1 ratio consistent with the results of the GMMP study. I also anticipate that men will outnumber women in online homepage news photos, though by a lesser margin than print photos because there is more space online and thus a greater variety of photos should appear.

H2: I expect that front-page news photos will show a significantly greater proportion of women in leadership positions when compared to past research, but still more women in stereotypical roles than as leaders. I also anticipate that men will still disproportionately outnumber women in traditionally "newsworthy" subject areas like politics and business across both print and digital, but I expect a greater proportion of female leaders in these and other categories online than in print, due to the increased space for diverse content.

In my first hypothesis, the 3:1 estimate is based on the results of the GMMP (2010), which found gender representation to occur in this approximate ratio across the

news media. My second hypothesis relies on specific definitions of “leaders” and “stereotypes.” I listed common female stereotypes, such as wife or sexual object, and leader types, such as business or politics, to see what types of roles are most common for women, and to provide an indicator of the subject matter they appear in.¹

These two hypotheses are the most crucial to this investigation because the raw percentage of women appearing as opposed to men shows the salience that women receive in the news today. This proportion has been consistently tracked for almost 20 years and therefore my results can be compared to a baseline. But, raw numbers do not show the types of roles women appear in – necessitating the second hypothesis. We would hope to see women appearing in more leadership and counter-stereotypical roles versus stereotypical roles. These portrayals are important for defining the roles acceptable for women to portray in society.

¹ The Methods section details two additional research questions and hypotheses, which deal with how minority women are portrayed in comparison to white women and with the question of the nature of leadership portrayals.

Literature Review

I. Theories on the existence of gender bias in the news

Media bias remains a relatively controversial area of communications research (Stocking & Gross 1989; Entman 2007). Causality is a challenge to prove, as it is difficult to say if bias in the news is a reflection of bias in society or the newsroom. In other words, is the news simply reflecting the bias that exists in reality, or are factors within news institutions curtailing female representation? Although we cannot draw clear conclusions, several theories exist as to why the news focuses the majority of coverage on men. Gatekeeping effects and socialization rank among the most prevalent explanations for this bias. Low levels of female coverage cannot be entirely blamed on any single cause, though. The stereotyping and omission of women from the news more likely results from the dynamic interaction of several variables.

Hall (1973; 1993) described three requirements for news stories: temporal recency, action, and newsworthiness. The absence of women from the news has often been attributed to the idea that females do not meet these criteria, that they are less “newsworthy” or less likely to feature in “newsworthy” topics. War, politics, business, and other major topics in the news belong traditionally to men. But, that is not to say women are any less affected by events in these arenas. The female perspective has not been treated as relevant on events in war and other traditionally “newsworthy” subjects (Harp, Loke, & Bachmann 2011). Despite a marked increase in the number of women participating in war – 1 in 7 active-duty U.S. soldiers is now female – a female soldier in the news may be an unusual sight (U.S. Department of Defense 2011; Pew 2011). While policies allowing women to serve on the front lines of battle have changed, the

patriarchal definition of “newsworthy” could be lingering. This requires investigation into whether the news media is moving more slowly in its treatment of women than society.

The enactment of Hall’s criteria for news often comes down to the judgment of just a few individuals. “Gatekeepers” – most often editors and publishers – determine the newsworthiness of a story based on what they think should be important to the public. The process is undemocratic in nature and, inevitably, individual biases may be reflected in the news (Donohew 1967).² In the past, a few people had the power to decide what we read and whom we read about in any given newspaper. The resultant gender bias was likely unintentional, but surprisingly consistent across newspapers.

This consistency of bias may be explained by the socialization of news staff. Reporters, editors, and publishers came to accept patriarchal values as an unintentional part of their job training, which seems to make it difficult for them to notice gender inequity in the news (Rodgers & Thorson 2003). In other words, they were taught to define newsworthiness in traditional ways that discriminate against women or give preference to subject matter in which women are not present, but are likely unaware of the biases within this definition. Part of this may be due to the predominantly male newsroom that once existed, but bias against women in the news has been demonstrated even among female reporters in past research. When compared to men, female reporters in North America are *less* likely to challenge stereotypes in their articles than female reporters in any other region of the world (GMMP 2010). Studies have shown that women working in U.S. news tend not to deviate from traditional ideals of

² The first GMMP (1995) found that women were the subject of only 17% of news stories in the U.S. and abroad, compared to 83% men – a clear differentiation between genders
http://whomakesthenews.org/images/stories/website/gmmp_reports/1995/gmmp_1995.pdf.

“newsworthiness” that leave out women (Rodgers & Thorson 2003; Ross & Carter 2011). Gender bias thus seems to be rooted in old newsroom traditions rather than outright discrimination.

The cultural values in the newsroom have seemingly been passed down through the generations. Journalism is a field historically dominated by men, but newsroom demographics appear to be changing slightly faster than gender bias in the news. As of 2010, women reported 30 percent of U.S. news stories, and 27 percent of stories contained women (GMMP 2010). One might theorize that the discrepancy between the amount of women reporters and stories about women demonstrates that female newsmakers have been socialized to preference male stories just like men. Rodgers and Thorson (2003) found that women at larger newspapers felt they were expected to behave more like men as a part of the male-dominated power structure, resulting in a reporting style that is more similar to their male counterparts. Women at smaller newspapers felt more empowered. Though it is unlikely that such expectations are explicitly stated, female reporters appear to be cognizant of some underlying bias towards masculinity – a perception similarly described by women in other corporate fields (Sandberg 2013). As smaller newspapers continue to disappear, the corporate, male power structure and ideas about newsworthiness might strengthen if the industry does not adapt to modern times.

Although reporting between men and women is often similar, in some instances differences in the news produced by men and women have been found. Armstrong (2004) analyzed almost 900 news stories and discovered that male sources and subjects received more references and were positioned more prominently. She found that a female byline is a significant predictor of women appearing in the story, whether as subject or source. Her

study also showed that women are more likely to favor female sources and report on topics that challenge female stereotypes than men, but still frequently publish stories consistent with patriarchal values.

The theory of “homophily” offers a possible explanation for why journalists maybe more likely to emphasize stories involving their own gender rather than the opposite sex, resulting in more coverage for men and less for women (Zoch 1998; Armstrong 2004). Homophily describes the attraction to one’s own likeness. According to this theory, men are therefore be more interested in reporting stories about men and women are more interested in stories about women. Rodgers and Thorson (2003) provided a more in-depth discussion of the differences between male and female reporting by following the articles of reporters at three different newspapers. They found that tone, topic, and sourcing all varied between sexes. Female reporters used more diverse sources, stereotyped less, and were generally more positive in tone. To some extent, this may indicate that women are assigned stories involving “soft” news instead of “hard” news.

Len-Ríos, Rodgers, Thorson, and Yoon (2005) performed both a content analysis of two newspapers and interviews with news staff to see how perceptions of gender varied. Males appeared more frequently in both articles and photos of the newspapers. The female staff members were more likely to be aware of this disparity than males, but polls of newsreaders showed that that the audience had greater awareness of the inequity than staff of both genders. For editorial, travel, and entertainment sections, the staff was less likely to notice disparity. This study supports socialization theory, but shows that journalists may be more biased than the public. With the progress being made by women

in society, it makes sense that readers would be more aware of disparity than the news staff, which has been taught within their profession to consider men more newsworthy.

Interviews with former female journalists have also shown that women are cognizant of the male-dominated atmosphere of the newsroom (Marcellus 2005; Elmore 2007). As in other traditionally male professions, the women who rise through the ranks in journalism are often perceived as masculine and feel they must act “male” to succeed. The behind-the-scenes dynamics of news influence gender bias, and the long-standing definition of newsworthy will need to progress with the times if journalism is to resolve the issue of gender bias.

II. Female portrayals in the media

The Global Media Monitoring Project

Gender bias in the media has been an issue of internationally recognized importance for over two decades, but the peak of concern about female representation occurred in the mid-1990s. The United Nations unanimously passed the Beijing Declaration and Platform for Action (PFA) in 1995 with the goal of removing “all the obstacles to women’s active participation in all spheres of public and private life through a full and equal share in economic, social, cultural and political decision-making” (United Nations 1995). This move officially recognized the media as a powerful indicator and influencer of human rights – specifically women’s rights – and its ability to either reinforce or undermine stereotypes in society. The Global Media Monitoring Project (Media Watch 1995) was thus established to track and analyze gender portrayal in news around the world, and every five years since, the UN has compiled and analyzed news

media from 72-108 countries to assess the status of female representation. It remains the most comprehensive source of data on gender in the news to this day.

The first study in 1995 found that women appeared in only 17 percent of news stories globally. While this number increased to 24 percent by 2010, many of the same trends and stereotypes were still prevalent, implying that the female perspective on current events was still most often not considered to be “newsworthy.” Generally women were relegated to specific sections of the news. The 2010 Global Media Monitoring Project identified dozens of subject areas for news stories and found that women received a majority of coverage in only four topic areas: stories about changing gender roles, stories about women in the workforce, stories about family, and stories about the “girl child” -- a category recently added by the GMMP to account for the recurring appearance of victimized female children. Inversely, women rarely appeared in stories about economics, war, trade, sports, politics, and most other issues.

One may think that modern, developed nations like the U.S. would demonstrate significantly more equal representation when separated from other parts of the world, but that has not been the case. In the United States by itself, women appeared in 27 percent of news stories in 2010. But, 52 percent of U.S. news stories about women reinforced gender stereotypes and only 13 percent challenged them (GMMP 2010). Women were also more likely than men to have their full bodies shown rather than the shoulders up, implying an increased focus and value on the female body. Traditional gender roles seem to be resilient even in a progressive nation.

In all fairness, the GMMP includes tabloids news in its calculations. This likely enhances the raw number of women represented, but also exponentially increases the

amount of gender stereotyping existent in the sample due to the focus on celebrities and scandal. Without the ability to separate out respected national news sources from tabloids, it is difficult to make judgments about gender portrayals in journalistic periodicals versus tabloids. This study of national newspapers is needed to control for these factors.³

Additional studies of female portrayals in the media

A number of other studies support the findings of gender bias in the GMMP, but results vary by the indicators, methods, type of media, and location of the data source. On the big data side, *The Guardian* (Evans 2012), a UK newspaper, recently conducted an analysis of every article published by the *Guardian*, the *Telegraph*, and the *Daily Mail* from July 2011 through June 2012. They collaborated with J. Mathias of the MIT Media Lab and data scientist Lynn Cherny to compare the gender of news authors. Women comprised a minority of bylines at each newspaper, coming out to about 19 percent overall. Percentages were notably consistent across each month of year, which indicates that one month may be sufficient for the study of gender representation in news, or could simply indicate that the male to female ratio of the newspapers' staff remained the same over the measured time period. *The Guardian* published graphics using the data, but published no formal research papers to contextualize the findings at the time this paper was written. The dive into gender in British news continues to unfold on the newspaper's Data Blog.⁴

³ The GMMP contains gaps in a few other areas as well. While it does analyze photos, it does not distinguish between types or sections of newspapers, or the prominence of the photo. It also only includes photos if the subject (person) in the news story is depicted. Often individuals are shown in news photos that are not directly discussed in the article. Because of these flaws, additional research on gender in the news is necessary.

⁴ <http://www.guardian.co.uk/data>

Qualitative research on gender in the media describes the environmental factors leading to gender bias and its possible effects on society. A topic as delicate and subjective as female stereotypes seems to lend itself more easily to such studies. Susan Douglas (1995) published her book *Where the Girls Are* in the same year as the first GMMP – pointing out a flagrant absence of non-traditional female voices in the media and a lacking presence of women in general. Her qualitative analysis remains a bedrock of feminist literature and provides a nuanced detailing of female stereotypes in the media that data-driven studies struggle to quantify. She describes how the fight for women’s rights and equal treatment in the U.S. media has often been portrayed as tiresome and worn out. Feminist protesters were demonized and ridiculed by anchormen without ever being interviewed (Douglas 1995; Dow 1999). Her examination of news and other mass media described a society with a very limited concept of beauty and expectations of subservience and martyrdom for women. Douglas (1995) explains how these portrayals conditioned young boys and girls to judge female value by the same standards. She argues that when they reach adulthood, they may propagate the same beliefs among their own children. Women, she claims, often fear negative backlash for being ambitious, outspoken, or breaking the mold demonstrated in the media in any other way; thus keeping capable young women from pursuing leadership roles.

The novelty of women taking on traditionally masculine roles, especially on a national level, has in fact been shown to engender negative reactions from the public and the press. The 2008 election was thought to be especially cruel to vice presidential candidate Sarah Palin and Democratic nominee Hillary Clinton in its stereotyping – spawning countless studies on their representation in the media (Falk 2008; Shepard

2009; Krol 2009; Carlin & Winfrey 2009; Harp, Loke, & Bachmann 2009; Harp, Loke, & Bachmann 2010; Wasburn & Wasburn 2011). When Clinton shed tears during a stop on her campaign trail, the incident blew up into a controversial discussion of her femininity and ability to handle the high-pressure role of president. Palin's physical attractiveness became a central tenet of discussions surrounding her candidacy. These very prominent examples of stereotyping and negativity towards female leaders may have deterred some women from entering politics, but the number of women in national political roles is still too small to draw firm conclusions.

Although other research on the portrayal of female candidates tends to reinforce the claims of differential treatment of female candidates (Falk 2008; Shepard 2009; Krol 2009; Carlin & Winfrey 2009; Harp, Loke, & Bachmann 2009; Harp, Loke, & Bachmann 2010; Wasburn & Wasburn 2011; Meeks 2012) some recent research on women candidates has not shown the same gender bias in local newspapers, and we do not know if they patterns apply to roles outside public office. One recent study found no statistical difference in the way that male and female Congressional candidates were treated in local newspapers (Hayes & Lawless 2013). The researchers believe that the increasing commonality of female candidates in state and local elections is causing a smaller focus gender in elections. It may also be the case that smaller newspapers are less susceptible to stereotyping than other media. A study of just national newspapers would show whether or not the larger, more corporate periodicals trend towards gender bias.

Past research on the gender portrayals in national magazines have indicated that larger publications are less favorable towards women. Yun et al (2007) surveyed major online magazines, such as *Newsweek*, from around the world and found only about 3-5

percent of stories were dedicated to women, but the female stories that did appear broke stereotypes by showing women in often career-oriented roles. These proportions of female representation are starkly lower than the findings by *The Guardian* (2012) and the GMMP (2010), which may mean that magazines are subject to greater gender bias than newspapers and other media. This might explain the snub Nancy Pelosi received from major news magazines like *Time* when she became the first female Speaker of the House (Shields 2011). There is little decisive data on the portrayals of women in magazine versus newspapers.

That said, stereotyping in magazines does appear to paint a dire picture in the literature. Sheehy and Hong (2011) used *Esquire* magazine's monthly "Women We Love" series to measure how female ideals have changed over time. The study covered 1987 to 2006, including four U.S. political eras and four magazine editorships. Researchers coded the women by occupation and by portrayal in the photo as either traditional or nontraditional, which often translated into sexualized or not sexualized. Overall, 83.5 percent of women worked in entertainment/ sports/ arts and only 10 percent had business/ professional/ social activism/ etc. careers. Women were portrayed traditionally – or in a stereotypical or sexual way – 66 percent of the time. Sheehy and Hong's (2011) most surprising finding was a steep drop in the percentage of women portrayed outside of the entertainment etc. industry over time, in addition to a sharp increase in traditional portrayals. By the final time period they studied, only 2.2 percent of women worked in business etc. and 93.3 percent were displayed in a traditional way. Of course *Esquire* is just one publication, and serves a male audience of about 700,000, so this study cannot be generalized.

Another area notorious for gender inequity that has been thoroughly studied in the literature is sports. Sports coverage has received considerable attention for sidelining women (Sage & David 1994; Everbach 2008). When women do appear, they are often portrayed in a sexual way or have frequent references made to their gender, such as a broadcaster calling a female athlete “young lady” (Duncan et al 1994; Creedon 1994; Smith 2012). Male athletes, especially football players in the U.S., regularly make national news, but female athletes appeared only 3.6 percent of the time, according to an analysis of one large newspaper (Sage & David 1994).

The status of women in sports coverage seems emblematic of the gender inequity and stereotyping issues females face in both news representation and society. Title IX opened doors for millions of female athletes, and now most girls grow up playing sports. Many go on to become college and even professional athletes. Yet despite a comparable number of men and women on all levels of athletics in the U.S., the salaries and public recognition of professional females are paltry compared to men. NBA players make the front page regularly, but WNBA players rarely appear, and are not taken very seriously (Woods 2012).

The female athletic leaders that do receive media attention are often portrayed in a sexual manner (Smith 2012). Such was the case with American hurdler Lolo Jones in 2012. Her coverage did not really concern her athleticism – it instead concerned her virginity. She did not even place in the London Olympics (Brooks 2012; Quinn 2012). U.S. runners Kellie Wells and Dawn Harper won silver and bronze ahead of Jones in the 100-meter hurdles, but few people know their names. The press seemed to favor Jones for her beauty and sexuality instead of focusing on her more accomplished teammates. But

like the *Esquire* study, we cannot necessarily generalize the trends of gender bias in sports to the entirety of the news.

Newspaper coverage seems to show less gender bias than magazines, but still unequal coverage of women and men. Bridge (1997) found that stories about women were the first to be dropped in the newsroom, and that front-page coverage of women in stories and photos actually slipped in the mid-1990s. Front-page photos specifically dropped from 39 percent female in 1994 to 33 percent female in 1995. She did not break her research out into topic areas, such as sports, to see if coverage differed by subject matter, and no recent studies have followed-up on Bridge's discoveries to see if they hold true in the new media environment.

III. The media effects of stereotypical portrayals

So why might we care about gender portrayals? As Douglas (1995) suggests, the media has the power to reinforce or undermine gender stereotypes. One may argue that these stereotypes are a symptom of culture and that the media is simply portraying the realities of our society. Unfortunately, the female 50 percent of our population appears in the news only 27 percent of the time, which implies that half of our society is not as newsworthy as the other, and that women may be receiving a lesser voice in the important events of our times. This operates as a subtle form of oppression. Without equitable and counter-stereotypical coverage of women, public perception of women might skew to antiquated, traditional views that could make it more difficult for women to attain leadership roles.

Media is an intrinsic tool of communication that many decades of research has shown can shape our thoughts, opinions, and even actions. The landmark texts of media theory provide substantial evidence to this influential role of the news in society. The theoretical explanation for the media's sway over our collective beliefs about women can be divided into two categories: framing, and cultivation (Goffman 1974; Gerbner & Gross 1976). The media tends to frame the news through a patriarchal lens, choosing male sources, subjects, and opinions. When women do appear, the focus often falls on their physical appearance, or their relationship to a man, such as wife or girlfriend. People who are exposed to these frames time and time again come to see the gender roles portrayed in the media as reality. Once a stereotypical worldview has been cultivated, people may treat women differently than men in reality; leading to job discrimination and other negative effects.

Framing

According to Entman (1993), "Framing essentially involves selection and salience." He explains how these two tools are used in a "communicating text" to emphasize or deemphasize specific parts of reality. Female portrayals in the news provide a prime example of this phenomenon. Historically, women have been less likely to be *selected* as sources and topics of the news, and the stories about women that have appeared seem to achieve lesser *salience*. Women might also be "framed" by showing more stereotypical females than counter-stereotypical females or female leaders. This would constitute a specific emphasis on one aspect of reality (e.g. women as mothers and wives) over another (e.g. female athletes or businesswomen). Communicators like photo

editors make these “unconscious or conscious framing judgments” in choosing what to show on the front page of the news, “guided by schemata that organize their belief system.” The belief system in this study involves the concepts of “newsworthiness” and gender, or what constitutes a relevant and compelling news photo and how a gendered lens may affect this.

Whether selective gender portrayals are intentional or unintentional, framing effects research shows that media coverage can influence public perception. This provides a theoretical basis for the claim that biased portrayals reinforce female stereotypes (Goffman 1974; Chong & Druckman 2007; Coleman 2009). If women are presented as less salient in the news, it in turn implies that women are less important in life (Yun et al 2007). Studies have shown that women do not often receive salient coverage unless as victims of a crime or as a man’s mother, wife, or daughter (Armstrong 2004). The depiction of women in these traditional roles might reinforce stereotypical perceptions of females. Such frames may then be perpetuated throughout generations of newsreaders and journalists.

Efforts to break female stereotypes have not been portrayed well in history. Empirical research shows that the media repeatedly delegitimized the women’s rights movement (Douglas 1995; Huddy 1996; Ashley & Olsen 1998; Mendes 2011). Female protestors for women’s rights were often described as unattractive and news writers would put quotation marks around words like “liberation” to mock their principals – in addition to outright admonishment. Anti-feminism protestors, on the other hand, were lauded as attractive and well organized (Ashley & Olsen 1998). The dominant frames that define female roles in our society, such as physical beauty, caregiving, and other

stereotypical attributes, were represented as preferable to women with other goals. Over time, educated career women have become less unusual and seemingly more accepted in the press and society. But, women blazing trails in new arenas are seen as novelties, which seem to still result in scrutiny.

In a contemporary example, framing in news coverage likely played a role in the negative reception of Katie Couric as the first female solo news anchor (Gibson 2009). CBS's Dan Rather was interviewed on MSNBC claiming that Couric's effect on the evening show was to "dumb it down and tart it up" in hopes of attracting a younger audience (*The New York Daily News* 2007). His comments echoed the many sexist remarks made by male news anchors during women's right protests (Douglas 1995). Though other variables may have been at play, Couric's subsequent lack of viewership and removal from the spot correlated with the negative press she received. It is doubtful that Dan Rather alone is responsible for her failure, but the flurry of public criticism about Couric's appointment likely contributed to the situation. Her experience offers one instance of negative, stereotypical representation of trailblazing female leaders in the news.

By providing competing frames that offer alternative portrayals of women, it may be possible to counteract to some extent the effects of stereotypical frames. Unfortunately, the collision of two opposing frames can also confuse an individual, or worse yet cause them to become all the more adamant in their original bias (Chong & Druckman 2007). This seems to have been the case with the juxtapositions of the women's lib movement and the anti-feminist protestors (Ashley & Olsen 1998). It is unknown if such effects are temporary or lasting, but they seem to especially take effect in novel situations, such as

when a woman runs for president. Only men have held the U.S. presidency, so the idea of a female in the oval office is still novel. But, women in Congress are no longer unusual, so they seem to be subject to less stereotyping in the media (Hayes & Lawless 2013).

The acceptance of women as members of Congress is promising for the framing of other female leaders. Chong and Druckman (2007) showed that if a frame is strong and prevalent enough, it is likely to become the dominant frame – eventually. A person may seek out more information to make a more educated decision, despite an initial negative reaction. Those who initially become more adamant in their bias may come to change their minds after some rumination on the subject, or warm to the idea of women in power after seeing positive effects. If exposed to diverse images of women in the media, the public may be forced to question traditional gender roles – allowing women to ascend more easily into leadership positions.

Cultivation

When our national media fails to provide prominent alternative gender frames, the audience may come to accept stereotypical portrayals of women as reality (Gerbner & Gross 1976). Cultivation theory suggests that people base their attitudes and actions upon what the media shows them. If the media cultivates certain expectations about gender, females that do not fit into those roles may encounter negative reactions. The 2008 presidential campaign and its preceding primaries offer a strong example. Hillary Clinton and Sarah Palin became the targets of much mockery and often found their femininity playing a central part in the derision (Falk 2008; Shepard 2009; Krol 2009; Carlin & Winfrey 2009; Harp, Loke, & Bachmann 2009; Harp, Loke, & Bachmann 2010; Wasburn

& Wasburn 2011; Meeks 2012). In some scenarios, cultivated perceptions may translate into discriminatory and even violent action against women.

On one common example, women who do take on leadership positions are often expected to carry masculine traits (Meeks 2012). Those who fail to be perceived as more “male” than “female” are thus undermined by stereotypes and may have difficulty breaking through the “glass ceiling” (Latu, et al 2011). These expectations send a confusing message to women, who may feel they need to choose between being perceived as attractive and pleasing or becoming successful (Douglas 1995).

Studies have also tested the effects of exposure to advertisements showing women who represent sexual objects or body image ideals (Stevens, Henson, Hopper, & Smith 2008; Buunk & Dijkstra 2011). Both men and women are more likely to purchase a product or magazine that portrays a slim, scantily clad female than one that portrays the same female with more clothes on. This behavior demonstrates a conditioned preference for the stereotypical, sexualized female. Again, women may feel they need to capitalize on their sexuality to be seen in a positive way, and men may find themselves judging a woman’s value based on her sexual attractiveness.

In one extreme example, Kahlor and Eastin (2011) found strong correlations between television consumption and acceptance of the “rape myth,” or the secret desire of women to be raped, among American viewers. By representing rape in such a way, the media appears to be promoting it as a justifiable behavior towards women, and might increase the incidence of sexual assault in the real world. This claim is not such a stretch. The large body of literature on violent videogames shows that users consistently experience higher levels of aggressive behavior, even after controlling for preexisting

personality traits (Saleem, Anderson, & Gentile 2012; Willoughby, Adachi, & Good 2012; Hasan, Bègue, & Bushman 2013). Often the violence within video games occurs against women. The enormously popular game *Grand Theft Auto* allows players to “have sex” with prostitutes and strippers, and kill them afterwards. Users can run over the women with their cars or shoot them to death, among other options. Surprisingly few studies have examined how this affects attitudes and behaviors towards women in life (Dill, Brown, & Collins 2008; Beck et al 2012). The few studies that do exist have found strong ties between exposure to such games and the acceptance of violence towards women. Although the connection to videogames is hard to prove conclusively, heavy users of *Grand Theft Auto* have been caught assaulting women in real life as well (Bingham 2008).

Research on the effects of videogames provides proof of the serious outcomes that may occur due, at least in part, to cultivation. News media does not, of course, allow their audience to virtually assault women. But, they may subtly condone the objectification of women by focusing on sexualized or victimized females. Violence and sex may be popular, as we see in the commercial success of *Grand Theft Auto*, and could drive news sales – a definite factor in photo selection. The news may be reflecting what society “wants” by showing stereotypical photos that drive sales, but this reinforces preexisting social biases.

We see examples of this effect in the body of research on cultivation of attitudes towards different races and ethnicities (Meyers 2004; Dixon & Azocar 2007; Gleason 2009; Lumsden 2009; Correa 2010). The minority female victim is an especially ubiquitous role seen in the news (Meyers 2004). African-American women are often

limited to such parts in the media (Lumsden 2009), but African-American men have also been portrayed in stereotypical roles. Dixon and Maddox (2005) exposed study participants to television news stories that contained perpetrators of a variety of skin tones from white to black. Participants that regularly consumed media were more likely to feel negativity towards darker-skinned criminals. This is evidence of the media's ability to strengthen stereotypes.

The media, of course, cannot be entirely blamed for instilling prejudice. A person acquires many of their beliefs from the adults who surround him or her as a child, and from life experiences (Ashmore 1986). We also cannot conclusively determine what percentage of influence comes from which source, but we know that each plays an important role. The more media we consume, the more likely we are to experience cultivation effects. At face value, the increasing media we consume through television, tablets, mobile phones, and computers implies that the media's influence over our attitudes and behaviors is increasingly relevant. The average American watches about 3 hours of TV a day in addition to time spent on the Internet and using mobile devices (Bureau of Labor Statistics 2012). Thus, in this "new media" landscape, it is as important as ever to test if old biases hold true.

IV. Differences between digital and print news

Ready or not, the move to digital has forced change upon the newspaper industry. News websites once contained the leftover content that was rejected for the print version (Matheson 2004). But, over the past decade or so, the landscape of online news has changed drastically (Kautsky & Widholm 2008). The Internet is now the home of

breaking news – allowing stories to be updated as they develop and multiple photos to accompany them throughout the day. This is very different from the static, permanent product of print news (Saltzis 2012). The dynamism of digital has transformed the news forever, but it is unknown if it has helped to equalize gender representation.

One might expect no difference because both online and print news reflect the same “newsworthiness” values. However, there are a few reasons why digital news might be more likely to include women than print: frequent updates, more space, and a desire for more universal appeal. The first two factors reflect the “liquidity” of the Web. The online format allows for more content on more diverse subject matter to appear (Karlsson 2012). The front page – or homepage – changes throughout the day, often pulling from sections that would normally not receive such salient attention. Because women have been relegated to the lifestyle sections in the past, this may be providing them the opportunity to appear front and center – though not necessarily in a less stereotypical fashion.

Digital also contains exponentially more space for content than the print newspaper product. Stories and subjects that might not traditionally be considered worthy of the front page appear, and are often allowed to last for several days (Fenton 2010). The photos that take the primary position on the front-page shift downward throughout the day, and it might take up to a week for the story to drop off the page completely. We see far more photos online than in print as a result.

Online newspapers are trending towards a more visual format in general. The *USA Today* homepage, for example, is comprised entirely of photos and headlines now – almost no text at all. In addition to photos, online news also contains multi-media like

videos, interactives, slideshows, links, and other components that were never possible in print (Barnhurst 2012). The liquidity of the Web has thus made images more relevant than ever to newspapers, but we know little about the gender composition and stereotypes that may exist within them.

The third reason why women may be more likely to appear online involves the increased accessibility of the news thanks to the Internet. The news can now be accessed anytime and anywhere a wireless connection exists. As a result, digital news now reaches far more people than print in the United States (Newspaper Association of America 2012). American periodicals also reach a much larger international readership than other before via the Web. The desire to appeal to a wider audience likely influences the appearance of more women and minorities in stories and photos (Kautsky & Widholm 2008). Publishers need the additional impressions from diverse readers to drive up ad revenue. Online news collection could thus be more likely to reflect global values than the traditional values of American print media.

But, accessibility may be affecting female representation in other ways as well. American online news is particularly accessible because it is often free of cost, making it more desirable than print. Print circulation for all U.S. daily newspapers has dropped by 24 percent since 1995. U.S. news websites currently reach about 112 million unique users daily, while print newspapers only reach 44.4 million (Newspaper Association of America 2012). The audience may have the power to play a greater role in the news than ever before, assuming that newspapers take this data into consideration. We may be “voting with our clicks” when it comes to news content and helping to decide what and

who appears through popular opinion. In other words, the types of content that attract the largest audiences are likely to be treated as the most salient.

This may be democratizing news to an extent – taking some of the power away from “gatekeepers” who traditionally decided what was important and newsworthy for us. Anyone can leave a public comment on an article, and authors and editors are thus beholden to their readers in ways they were not in the past (Fenton 2010). The face of news is responding to reader desires, which may provide another opportunity for women to gain a greater presence. Unfortunately, the “democratization” of news may also drive newspapers to appeal to the “lowest common denominator,” or popular tabloid-like content that brings in clicks but lacks substance. This effect has not yet been well measured.

Female representation in digital vs. print

Gender in online news has not been thoroughly examined in the literature. Yun and her colleagues (2007) conducted one of the few studies of women in online news. Yun focused on magazines instead of newspapers -- collecting data on four digital magazines from four different countries. Though women were shown in relatively diverse roles in online international and American news magazines (Yun 2007), they were presented as the topic of stories in only 5% of recorded instances.

The data, which was collected over the period of just one month, showed that women were portrayed slightly more positively than men, but still lagged in the amount of female coverage. Although women rarely appeared as the topics of articles, those that did were more likely to be portrayed in a positive light than men – possibly because men

were more likely to appear as criminal or in other negative roles, but the study does not elaborate on this point. The researchers only analyzed a sample of the articles that referenced men because of the sheer quantity of male coverage. Yun (2007) pulled her data from all pages of magazines, not just front pages, so no determination was made for salience. Newspapers may yield different results because they are printed on a daily basis and follow different publication processes than magazines. More importantly, magazines are generally specific to a certain audience while news is meant for mass consumption. Despite these variables, Yun's research clearly indicated that online news has not eradicated gender bias.

In the most recent year the GMMP (2010) began collecting data on gender representation online in addition to in print. Unfortunately, the sample of online media collected did not include the United States, as the Internet portion of the GMMP is still in a pilot stage. The study found that female representation online is almost identical to print representation at 23 percent internationally. We do not know if the trends of online news internationally hold true for the U.S. As the U.S. is a global technology innovator and contains the most powerful media in the world, there is a possibility that our online news will look very different from the 16 countries the GMMP measured, but similarities in gender representation in U.S. and international print media imply that our digital news will also reflect similar trends.

Research in online news is still evolving, as digital news itself continues to evolve. To date there are not comparisons between gender representation in online and print news in the U.S. – leaving an important space for this study to fill. Digital news will continue to grow and change, while print diminishes. Literature on women in U.S. news needs a

baseline analysis of the gender landscape online during this transition. This research will indicate if the salience of women in the news, particularly female leaders, is progressing along with increasing achievement and if our advancing technology has created space for greater diversity in the news.

V. Why study news photos?

In my study, I focus on the photos used in print and digital versions of major newspapers. Photographs are an essential component of news that often denotes the most salient stories of the day. With the advent of online news, we are seeing more photographs and multimedia than ever. However, news organizations seem to be realizing that the short attention spans of readers demand a lot of information in a minimal period of time, which images can provide. As our news becomes more visual, the study of photographs has become increasingly important as they can transmit information that words alone cannot.

Images require almost no literacy or translation (Schomburg-Scherff 2000). Unlike with words, a language barrier does not necessarily prevent comprehension. We may each interpret an image differently based on our cultural or individual background, but we recognize the same basic symbols, such as man, woman, and child, or the sun, the moon, and the stars (Hall 1973; 1993). An image of a woman holding a child contains factual characteristics like gender no matter the language nor the emotional response one has to the scene. The universality of images means that society, as a group, is greatly influenced by photos. This influence begins in early childhood -- before we are even able

to read – because images have a more universal interpretation. Again, it is thus important to study the nature of the images in the news.

Images & the brain

The notion that photos can have greater impact on society than articles comes from work that shows images tend to stay with us much longer than words (Levie & Hathaway 1988) – a partial explanation for why it is so much easier to remember faces than names. Thus, the photos we see on the cover of a newspaper are likely to stick in our minds far longer than the accompanying articles. We all remember the pictures of the Twin Towers going up in smoke on 9/11, but few of us can quote the words of the text printed alongside them (Hatfield 2008). Such photos -- which tend to grace the front pages of our newspapers -- become the symbolic markers of our history and culture. Some gain permanence in memorials, like the soldiers pushing up a flag in Iwo Jima, while others are filed away as microfilms in libraries. The record of our society, and the events and people that shape it, are preserved in these pictures. To understand the pervasive effects of images, and how an absence or stereotypical portrayal of females in news photos can be catastrophic to gender parity, a discussion of the underlying psychology is necessary.

Edelman (1996) explained how the narrative of the images we consume shapes our perceptions and actions, at times promoting higher-level thinking and at times impeding creative thought altogether. Visuals are constructed from symbols and have lasting power in our memory, enhancing their value. The Iwo Jima memorial is one example of a news image that transformed into a permanent cultural symbol. Our ability

to interpret these symbols into meaningful messages relies on the process of encoding and decoding (Hall 1973; 1993). The cues provided by language and images allow us to make sense of a message in the context of the world around us. The message sender, such as a journalist, may or may not intend to encode a certain meaning, and the audience may interpret it in their own individual way, but, nonetheless, a message is received, decoded, and stored away in the mind to wait for a strong enough cue to call it forth.

The function of stimulating ideas in the mind is often referred to as the network model of memory (Anderson 1983). Anderson described our formation of concepts as “nodes” that are linked by “associative pathways” to other nodes. The node in one’s brain that shapes the idea of a woman may be connected to the nodes for “beauty,” “mother,” or “intuition,” but probably not “president” or “quarterback.” Each node has an “activation threshold” that can be set off by words or images. The activated node may then cause other associated nodes to trigger, drawing a larger picture. If no more cues are provided, activation of that node will dissipate and it will eventually become latent. Any sort of visual, verbal, or sensory cue can prompt this process, including photographs. But, the images begin shaping these pathways earlier in life than written words and are able to convey far more information in less time.

The network model of memory also explains the practical uses of imagery. Many years of studies show that we are able better recall pictures than we are words, justifying the importance of a logo to a brand or our ability to recognize the face of a former classmate when their name escapes us (Levie & Hathaway 1988). Photos grab our attention and have the power to elicit immediate emotional impact (Ewbank, et al 2009). They can express abstract ideas, like suffering, when words will not suffice. The visceral

response we have to shocking, inspiring, or other novel images can cause that person, event, or other concept to become etched into our minds.

A collective understanding of symbols is the definition of culture (Schomburg-Scherff 2000). People come to associate concepts with symbols by repeated exposure, which the media facilitates, as discussed in the section on cultivation. A woman can of course be a symbol and hold certain meaning in a culture -- a meaning derived from the large webs of associations that are constructed in our heads. To expand and change these associations, we must be exposed to alternative portrayals, or frames, to allow the development of different cues. If women as a symbol drew up the cue of “leader” in the majority of our society, then it may be easier for females to attain positions of power. Non-stereotypical portrayals of women in news photographs are therefore essential to removing gender stereotypes from our culture.

News images

In the context of news, Hall (1973; 1993) saw photography as a means of maintaining the status quo – perpetuating the ruling ideals. The images in the news are meant to depict reality, and in doing so tell the public what reality should look like. This is why news images matter. They hold partial responsibility for society’s perception of women. Stereotypical or non-existent news coverage of women pigeonholes our mental model of female roles, rendering them voiceless and irrelevant in society. Hall’s assessment explains the maintenance of lower female status – women receive limited attention or are portrayed in disempowered positions in the news, and so they continue to

be disempowered in reality. Unfortunately, large-scale research has shown that the portrayal of women in the news *is* historically limited (GMMP 2010).

For economic reasons, editors are inclined to select a front-page photo they believe will grab attention and increase sales (Allern 2002). One study found that these images are more likely to portray misfortune – perhaps because emotion compels readers to pick up the newspaper when a tragedy is shown (Newhagen & Reeves 2006). War, crime, and natural disasters all fit these criteria and often receive news coverage, and since women are less likely to be criminals or soldiers, meaning that they are left out of many such images. When women are included, they are often victims (Meyers 1996). The 15 percent of soldiers and officers who are female seem absent, as do the women in many other counter-stereotypical roles. Our society needs to see these women to know that they do in fact exist.

The Global Media Monitoring Project (2010) has found gradual improvement in female media portrayal over the years, but still the female 51 percent of the world's population only appears in 24 percent of global news stories -- a disadvantage that the UN recognized as an impediment to equal rights. The public relies upon news for the information needed to structure their worldview (Koehler 1998), but the current financial model of news may be leading newspapers to publish stories and photos that perpetuate stereotypes, rather than providing images of the counter-stereotypical women who are increasingly common in our society. We do not currently know if the trends we have seen in print hold true for online news, and if women are benefiting from the increased “democratization” that comes along with it.

Female representation in front-page news photos is especially important. These images are considered as the most salient subject of the day -- particularly the large central photo (Coleman 2009). By showing how often women appear on the front page, we get a better measure of the “newsworthiness” attained. The cultural importance of images combined with the salience of front-page, high-circulation news holds a significant impact on society. Therefore, the appearance of women in these images provides a marker of female status in the digital news age, and warrants further study.

Methods

Overview

Women are attaining a growing number of leadership roles and I wished to see if these changes were reflected on the front page of U.S. newspapers. I chose to focus on front-page photos because they hold the most salient position. Even casual newsreaders glance at the front page online or in print. Additionally, the transition of newspapers to a digital medium might be providing more space to present women and to present them in a greater variety of roles. I compared digital and print front-pages from 3 national newspapers to see how women were portrayed (e.g. leaders or counter-stereotypical versus stereotypical portrayals), and if online news portrayed a greater ratio of women than print.

Research Questions

1. How often are women featured in front-page and digital homepage news photos in comparison to men?
2. Do front-page news photos more frequently portray women in leadership roles or stereotypical roles? (when roles can be identified) And is there a difference in the types of female roles portrayed in online news versus in print?
3. Are female leaders more often portrayed in a positive or negative light compared to male leaders?
4. Are women of racial minorities depicted more or less often in front-page news photos than white women, and in what types of roles do they most often appear?
In other words, is race a strong indicator of female stereotyping?

Hypotheses

1. I hypothesize that men will outnumber women in print front-page photos by at least a 3:1 ratio, as demonstrated in the GMMP (2010). I also anticipate that men will outnumber women in online front-page news photos, though by a lesser margin than print photos because there is more space online and thus a greater variety of photos should appear.
2. I expect that front-page news photos will show a significant proportion of women in leadership positions when compared to past research, but still more female stereotypes than leaders. I also anticipate that men will still disproportionately outnumber women in traditionally “newsworthy” subject areas like politics and business. I expect more female leaders in these and other categories to appear online than in print, due to the increased space for diverse content.
3. I expect that tone will be more positive for female leaders than male leaders, as Yun (2007) and others have found.
4. I anticipate that more white women will appear in front page photos more often than minorities, and I expect minority females to be shown more often as victims and in other stereotypical roles rather than leaders, as past research has shown. Minority women online will be slightly less stereotyped than in print.

Methods

I conducted a content analysis of front-page news photos from 3 national newspapers, both online and in print. My sample includes photos from USA Today, Washington Post and New York Times for 14 days in in November - December 2012 and January 2013.⁵ Captions and headlines were used in coding under the assumption that readers use the information provided to process photos. The individuals and groups portrayed in each image were recorded using 24 descriptive variables, such as gender, race, female stereotype, counter-stereotype, and profession.

I also interviewed photo editors, Lindsay Blatt from *The New York Times* and Denny Gainer from *USA Today*, to learn more about how the selection process for photos has changed since the advent of the Internet. These interviews shed light on the operations behind the photo selection process and provide insight into any intentionality that may influence gender representation on the front page.

Changes have progressed too quickly for research to fully examine the effects of the Internet on news, and the rich interactivity of online news poses challenges to researchers. Kautsky and Widholm (2008) established Regular Interval Content Capture (RICC) as a method for studying data from websites, particularly news sites. RICC shows the dynamism of news websites as they are updated over a period of time, such as a day. The photos and stories that appear at the top of the page are considered the most salient, similar to print, but tend to shift downward as new stories or stories from other sections of the paper replace them. Content that remains at the top for an extended period of time indicates an additional level of salience. It is difficult to capture every change that occurs

⁵ Exact dates: 11/29/12, 12/1/12, 12/3/12, 12/5/12, 12/7/12, 12/9/12, 12/13/12. 1/8/13, 1/10/13, 1/12/13, 1/14/13, 1/16/13, 1/18/13, 1/20/13

because websites are frequently updated in response to breaking news instead of an editorial schedule. However, the static snapshot provided by RICC is currently the best available method for recording the diversity and updates of online news in a format comparable to print.

Sample

My sample includes the digital and print front-pages from 3 national newspapers that were collected four times daily: *The New York Times*, *The Washington Post*, and *USA Today*. The print versions of the front pages were collected daily from the Newseum's website, <http://www.newseum.org/todaysfrontpages/>. *USA Today* does not allow posting of the front page of its weekend editions, so these are missing from the sample.

I captured all front pages from November 29-December 14, 2012 and January 7-20, 2013⁶. The breaks in data collection from December 15, 2012 to January 7, 2013 occurred to avoid any intervening effects of the holiday photos that proliferate during that period. From the 30 days of coverage that were captured, 14 days (every other day) were coded for this study. This yielded 41 print front pages and 174 digital front pages (a few digital front pages are missing due to technology issues), with each digital front page comprised of ~3 screen captures to include all content.

Captures took place between 8:00AM-8:30AM, 12:00PM-12:30PM, 4:00PM-4:30PM, and 8:00PM-8:30PM EST.⁷ This allowed me to capture the dynamic nature of the homepage over the course of the day. As I discovered over the course of my study,

⁶ Without the weekend *USA Today* in print, as noted above. Online versions were capture for all 3 newspapers during the weekends.

⁷ An occasional time variation occurred due to outside forces, such as loss of Internet connection.

much of the same content remains on the homepage throughout the day – simply moving downward on the page to make space for several new items. On *The New York Times* and *Washington Post* sites, content on the bottom of the homepage seemed to change only a little over the course of several days or even a week. *USA Today* was the most dynamic – changing the photos on its homepage more regularly. I am confident that I captured all major updates on the sampled days and that the four-times daily screen caps were sufficient due to the repetition of content I witnessed over the day parts. It is unlikely that I missed major updates in between each capture, as important news items seem to last the longest and are unlikely to have been posted and removed within a four hour window. Also, all of the included publications operate on East-coast time, so major updates are unlikely to have occurred at night.

Due to the large number of screen captures of digital news homepages and the number of photos within each capture (20-60 per news site per time slot) and even more individuals within each photos, I was unable to code the entire sample of 30 days. Thus, I took 14 days from among the data by taking every other day from the 2 two-week collection periods -- odd numbered days in Nov. - Dec. 2012 and even numbered days in Jan. 2013. I coded all digital and print front pages within this sample. This resulted in 2,581 individuals and groups in digital news photos and 242 individuals and groups in print photos.

Digital front pages were defined as all content except for advertisements, games, and other non-news items. Everything above the “diversions” section of the *Washington Post* is included in screen captures and eligible for coding. *USA Today* and *The New York Times* both contain news items up to the bottom of their homepage and do not need to be

cut off. Videos and multimedia were only coded if they displayed a static cover image. Across both print and digital photos, cartoons and other types of human effigies were only coded if comprised of photographs or life-like drawings, such as a poster of Assad held up by a crowd of protesters. Advertisement photos were excluded, as were photos that did not include people because the intent of the study is to analyze the men and women who appear in front page photos. Individuals and groups that were too small or blurry to be made-out were also left out. As a general rule, only news media was included - not tweets with photos or other miscellaneous items that may appear on the front page.

The number of photos and individuals portrayed on each front-page fluctuated. A grand total of 2823 individuals and groups from 2067 photos were coded. *The New York Times* provided the smallest portion of individuals and groups, with 75 in print and 691 online. *USA Today* fell in the middle, with 81 in print and 934 online. *The Washington Post* proved the most prolific, with 86 individuals and groups in print and 956 online. Although *USA Today* seemed to update the most frequently, it is also the smallest of the three homepages in space – requiring only two screen caps compared to the three needed by the other two publications.

Aside from the holidays, which I avoided by halting collection from December 15 – January 7, a few other significant events occurred in the news within my sample. Professional football season was in full swing, which meant a lot of photos of football players. That said, one sport or another is always in season – from basketball to baseball – ensuring significant sports coverage year round. Thus, I doubt the results are significantly different in terms of how often male athletes appear. President Obama's 2nd inauguration was on the horizon as well, meaning lots of photos of the First Family and

new appointees. These groups are always significant news figures, though there was likely an enhancement of inauguration-related photos. More attention was likely drawn to politics and President Obama than usual. One final event does warrant mention: Lance Armstrong's admission of guilt. Armstrong made many appearances in front page photos during the period of collection, especially online, which likely boosted the percentage of male athletes and increased the negative portrayals of male leaders by a couple of percentage points. Still, the fact that the media was intently focused on a male athlete rather than a female, though surely some professional female athletes have been caught doping, indicates the bias that I am studying. For this reason, Armstrong was not removed from my results.

Coding

Coding was done at the level of the individuals depicted. Every individual was coded separately unless part of a group, like an audience or mob. A photo was coded multiple times when it showed more than one individual. If there were individuals within a group photo that stood out, such as Leon Panetta speaking to a group of soldiers, both the individual (Leon Panetta) and the group (soldiers) were coded. These groups were coded as a collective if they included five or more people that were not clearly distinguishable as individuals, such as an audience or team photo.

I coded the relevant characteristics of each individual that appeared in the photos on the collected print front-pages and digital homepage screen caps. The most important variable was, of course, gender. Fortunately, this is a generally straightforward characteristic to code. Using physical characteristics and descriptive information from the

headline and caption, sex was usually easy to determine. Metadata was also recorded, including publication (the name of the newspaper), date, time (digital photos only), and position on the page.

Other variables proved more subtle and required detailed definitions. As the primary goal of my study is to discover how women are portrayed, I had to distinguish between leaders and non-leaders, and between stereotypical and counter-stereotypical roles. “Leader” was defined as an influential figure in society, the world, or a smaller community scale. Some examples include a congressman, a famous entertainer like Madonna, an NFL player, or, on a smaller scale, a doctor or scientist. I divided leaders in several categories, such as politics, athletics, science, and entertainment/ arts to capture the varying types of leaders. People were coded based on their portrayal in the photo and the descriptive information in the accompanying headline and caption. If Mark Zuckerberg was photographed in his office at Facebook, he was coded as a leader, and then in the appropriate category – business. I created two write-in variables for recording the names and professions of leaders to provide further identifying detail.

“Leader” was the only variable that included both men and women. Stereotypes and counter-stereotypes were female only, but otherwise similarly categorized. The first “stereotype” variable asked whether a person or group was being portrayed in a stereotypical manner – (0) No or (1) Yes. The second broke the stereotypes down into categories, like physical object, wife/ girlfriend, or mother/ caregiver. Counter-stereotypes worked the same way and contained significant crossover in categories with “leader” options, such as politician and businesswomen, but excluded the entertainment/ arts category and any other woman in a leadership role that is traditionally ascribed to

women, such as First Lady. But, counter-stereotypes also included a variable for the negative role of criminal and any physical laborer role – neither of which are considered leadership positions. It is important to note that women could be simultaneously coded as any combination of these variables. For example, Michelle Obama might have appeared in the roles of First Lady (leader – politics) and wife (stereotype) at the same time, and was coded appropriately under each variable.

The two most challenging variables to code for were race/ ethnicity/ nationality and tone. Race was divided into 11 ethnic and racial categories, from black to East Asian to Afghan/ Pakistani. Asian subgroups were broken into separate groups to account for the significant cultural differences that may affect female portrayals, such as the custom of wearing a hijab in the Middle East. The unique position of Afghanistan and Pakistan in current affairs was also taken into consideration. This allowed me to measure how often women appeared in photos from these countries – an indication of the relevance they are given and roles they appear in during these tumultuous times. Fortunately, captions and headlines almost always stated the country of origin for those in Southeast Asian and Middle Eastern countries.

The same cannot be said of other races and ethnicities. Often, I had to rely on physical characteristics, context, and names to make a guess, but a stated ethnicity was always preferable. For example, the football player Manti Te'o appeared regularly in my sample of front pages. His ethnicity was never stated, but based on the cultural heritage of his name I surmised that he is Pacific Islander. Barak Obama is of a mixed race background, but was coded as “black” unless this fact was explicitly stated in the caption or headline. This is because he is generally known as the first African-American

president and would be identified as black by anyone without that outside knowledge. When unsure of a person or group's race, I coded them as 0, or "unknown." If coding a group of people of multiple races, they were recorded as "mixed race."

Tone was broken into three categories: (1) positive, (2) negative, and (0) neutral. I defined positive tone as an individual or group that appeared to be accomplished (such as receiving an award), kind, sympathetic, attractive, or any other desirable quality.

Sympathetic portrayals often occurred within photos including a victim, a parent or spouse of a person who has died, or a person who has endured suffering of another kind. Physical expressions like smiling and handshakes were also coded as positive, as long as they were not contradicted by the caption or headline (like a smiling serial killer).

Obituary photos or other photos in memoriam were usually coded as positive because they portray sympathetic remembrances. If the caption/ headline describes the deceased as a difficult or unsavory person, though, it was coded as negative instead. A person experiencing a happy moment, such as getting married, was coded as positive.

A person fell under "negative" tone anytime they were portrayed as a criminal, a corrupt leader, or in any evil, abusive role. Whenever the caption, headline, and photo appeared to be mocking or criticizing the individual or group – such as a purposefully unflattering photo of a politician – the portrayal was also considered negative. If tone was not strong enough in one direction or the other, it was coded as neutral.

All remaining variables and definitions are detailed in the Appendix of this paper.

Intercoder reliability

Intercoder reliability was calculated using Scott's Pi, a chance-corrected measure of agreement, and ranged from 39.5 percent to 100 percent across the variables. The percent agreement ranged from 69 percent to 100 percent across variables. Variables that rarely appeared, such as LGBT and children, had lower reliability on the chance corrected measure, as did variables like tone and race that required a great deal of nuance in interpretation. For example, there were 40 instances in which one coder selected "white" and the other selected "unknown." This could partially have been avoided by clearer coding criteria wither fewer options beneath some variables (i.e. fewer categories), but also reflects the subjectivity of the content being coded.⁸ Because a desirable level of reliability is above .60, we must exercise some caution in interpreting tone, race, and stereotypical role types, as they did not reach this level. Further explanation is included in the Appendix D.

⁸ The two separate coders coded the photos in different order in a few instances, which likely lowered reliability across the board.

Table 1. Intercoder Reliability

	% Agreement	Scott's Pi	N Agreements	N Disagreements
Variable 1 - Publication	100.0	100.00%	288	0
Variable 3 - Print v. Digital	100.0	100.00%	288	0
Variable 3A Prominence on page	94.1	90.30%	271	17
Variable 3B Prominence in Photo	93.1	61.70%	268	20
Variable 4 Number of people	91.3	86.60%	263	25
Variable 4A Group or Indiv.	91.7	47.70%	264	24
Variable 5 Gender	88.2	75.50%	254	34
Variable 5A Adult v. Child	96.9	58.00%	279	9
Variable 5B LGBT	99.0	39.50%	285	3
Variable 6 Stereotype	93.4	52.20%	269	19
Variable 6A Stereotype Roles	92.7	48.60%	267	21
Variable 6B Counter-stereotype	99.0	86.40%	285	3
Variable 6C Counter-stereotypical roles	98.6	79.50%	284	4
Variable 7 Leader	79.5	59.60%	229	59
Variable 8 Leader type	78.8	67.10%	227	61
Variable 9B Political Affl.	93.1	67.90%	268	20
Variable 10 – Race	68.8	53.40%	198	90
Variable 11 – Tone	70.8	51.50%	204	84

Results

RQ1: How often are women featured in front-page and digital homepage news photos in comparison to men?

H1: I hypothesize that men will outnumber women in print front-page photos by at least a 3:1 ratio, as demonstrated in the GMMP (2010). I also anticipate that men will outnumber women in online front-page news photos, though by a lesser margin than print photos because there is more space online and thus a greater variety of photos should appear.

Print

Print news portrayed a majority of men, with 69.9% men, 24.7% women, and 5.4% in groups of one or more genders. The 3 periodicals varied somewhat, as shown in the table below. My hypothesis was close but incorrect, as the only newspaper to portray women and men in approximately a 1:3 ratio was the *Washington Post*. *The New York Times* was the next closest, but not quite 1:3. Although the ratios are somewhat better than expected, there is still a large discrepancy in the proportions of men to women in print front-page photos.

Table 2. Gender Distribution by Periodical (print)

	<i>NY Times</i>	<i>Washington Post</i>	<i>USA Today</i>	<i>Total</i>
Male	68.9%	72.1%	68.4%	69.9%
Female	24.3%	23.3%	26.6%	24.7%
Mix (group)	6.8%	4.7%	5.1%	5.4%

Digital

Digital contained 67.6 percent men, 27.4 percent women, and 5 percent groups. The percentage of women is about the same as the GMMP (2010) found for the number

of stories in American news that include women, 27 percent, which may mean that front-page photos are a good indicator of female representation overall. Because women fared slightly better in proportion in digital photos, the second portion of my hypothesis appears to be correct, though the difference is too small to be substantively meaningful. These results are fairly consistent across all three papers, as shown in the table below. I also cannot conclusively prove that any difference between the raw number of women in print and online is due to the greater amount of space and fluidity offered by digital news. Based on interviews with photo editors, which will be covered in the discussion section, it seems that the increasing proportion of women in both formats might be the result of several additional factors -- increasing entertainment content in major newspapers, the desire to drive traffic by publishing content that appeals to the widest possible audience, and the reflection of the societal trend of women taking on more and more powerful roles in society. This study cannot prove how these and other variables might interact to result in an increased female presence in homepage and front page photos, but offers these theories as possibilities for further debate.

Table 3. Gender Distribution by Periodical (digital)

	<i>NY Times</i>	<i>Washington Post</i>	<i>USA Today</i>	<i>Total</i>
Male	67.6%	70.7%	64.3%	67.6%
Female	29.1%	23.5%	30.3%	27.4%
Mix (group)	3.3%	5.8%	5.4%	5.0%

RQ2: Do front-page news photos more frequently portray women in leadership roles or stereotypical roles (when roles can be identified)? And is there a difference in the types of female roles portrayed in online news versus in print?

H2: I expect that front-page news photos will show significant proportion of women in leadership positions, but still more women in stereotypical roles than as leaders. I also anticipate that men will still disproportionately outnumber women in traditionally “newsworthy” subject areas like politics and business across both print and digital, but I expect a greater proportion of female leaders in these and other categories online than in print, due to the increased space for diverse content.

Print

Although raw proportions of women and men did not yield significant differences between print and digital news, the proportions of female stereotypes as compared to leaders did. The total number of women who appeared in print was 59, or 24.4 percent.⁹ Among these women, 52.5 percent were portrayed as leaders. More than 3 times as many male leaders appeared compared to women (31 female leaders vs. 96 male leaders) – closer to the 3:1 ratio I expected to see in my first hypothesis concerning overall numbers.

Additionally, 30.5 percent of women overall were portrayed in stereotypical roles. Only 13.6 percent appeared in counter-stereotypical roles, which excludes actresses and other entertainers – along with powerful women in politics like the First Lady when she is performing a traditional female role in the photo – but includes the rare appearances of female criminals, physical laborers, soldiers, and any other non-leadership role that is not traditionally ascribed to women. Leaders, counter-stereotypes, and stereotypes are not mutually exclusive -- meaning that a female leader like Yahoo CEO Marissa Mayer (Fig. 1) may be simultaneously portrayed as a business executive (leader) and mother (stereotype), so the individuals in this study were coded as both when necessary. As explained in the methods section, leaders, stereotypes, and counter stereotypes are coded

⁹ Women that appear in mixed gender groups were not counted towards the total number of women.

as separate variables to allow those who fall into more than one category to be coded as such. Further detail is provided by additional variables that describe the role types under each category (e.g. a stereotypical women may be a mother, wife, etc.), and a full explanation can be found in the Appendix. In summation, women appeared more frequently as leaders than in stereotyped roles in print, but stereotyped roles occurred more than twice as often as counter-stereotypes.

Fig. 1 Coding Example: Marissa Mayer



Mayer is one of a few famous mothers making waves. (Reuters)

Mothers up in arms over baby talk

Petula Dvornak 8:06 PM ET

COLUMN | Yahoo CEO Marissa Mayer recently upset some parents over a comment her baby is "easy" — but at least she's talking about motherhood at all.

It should be noted that women most frequently appeared in the role of entertainer/artist with 21 instances -- accounting for 35.6 percent of females in print. Entertainer/artist was considered a “leader” role in this study, but not a “counter-stereotypical role.” Women who fell into the entertainment category were simultaneously coded as “stereotype” if portrayed in a sexualized manner or as a wife, mother, and any other stereotypical roles in addition to being shown as a leader in acting etc. Outside of entertainment, only 10 women, or 16.9 percent of all women, were leaders, including 9 politicians and 1 female academic. It should be noted that not a single woman appeared as an athlete among print photos. If I had excluded entertainers and artists from my

definition of “leader,” the first part of my hypothesis would have been correct – that women appear more often as stereotypes than leaders.

Male leaders in print displayed somewhat more diversity. Of 167 males that appeared, 96, or 57.5 percent, were portrayed as leaders (11.9 percent more than women): 47 athletes, 34 politicians, 10 entertainers, 2 businessmen, 2 lawyers/ judges, and 1 religious leader. That means that 28.1 percent of all men were athletes, and an additional 6 percent were entertainers/ artists. This leaves only 23.4 percent of men appearing as leaders if entertainers and athletes are removed from the equation (6.5 percent more than women). Therefore, the largest portion of both men and women appearing in front-page print photos as leaders falls under entertainment or sports content. This implies that our news as a whole is not necessarily comprised of current events, but mostly sports and entertainment.

Although a greater number of men did appear as politicians and businessmen than women, the difference did not appear to be disproportional to the current gender breakdown of CEOs and members of U.S. Congress. The stark difference in the gender of sports coverage does indicate some bias, though.

Table 4. Leader Type by Gender (print only)

*No groups appeared as leaders in print

	Gender		Total M/F Combined
	male	female	
Politics	35.4%	29.0%	33.9%
Business	2.1%	0%	1.6%
Law	2.1%	0%	1.6%
Academia	0%	3.2%	.8%
Athletics	49.0%	0%	37.0%
entertainment/ arts	10.4%	67.7%	24.4%
Religion	1.0%	0%	.8%

Moving onto female stereotypes, the most common was wife/ girlfriend, accounting for 13.6 percent of all females, followed by physical object at 5.1 percent of all women with 3 instances, the same percentage as victims. Mothers/ caregivers and traditional workers, like nurses and teachers, made only 2 appearances each, or 3.4 percent. These numbers are of course small and thus difficult to draw conclusions from – reinforcing the main point that few women appear in comparison to men. The numbers for counter-stereotypes were even smaller, with just 6 female politicians (excluding the first lady when portrayed in a traditional role), one academic, and one female criminal.

Among the three publications studied, the number of women appearing in leadership roles somewhat varied. *The New York Times* portrayed 50 percent of women as leaders, 16.7 percent as counter stereotypes, and 33.3 percent as stereotypes. The women in *The Washington Post* were comprised of 45 percent leaders, 10 percent counter-stereotypes, and 30 percent stereotypes. USA Today included 61.9 percent leaders, 14.3 percent counter-stereotypes, and 28.6 percent stereotypes. The newspapers were all relatively consistent, with *The Washington Post* appearing to contain the smallest proportion of women and *USA Today* the largest, at least in print.

We can get an idea for the types of stories considered “newsworthy” in print by looking at the types of leaders most commonly portrayed. The proportion of photos containing athletes as compares to politicians implies the relative newsworthiness of each subject. Combined, the most common type of leader among the three newspapers was “athlete,” -- most often football players -- accounting for 37 percent of all individuals and groups in front-page print photos. This was no doubt influenced to some degree by the NFL playoffs that occurred during the collection period, but baseball and basketball may

be found to keep this numbers consistent year round upon further study. The second most common leader was in “politics,” with 33.9 percent of individuals and groups, and “entertainer” with 24.4 percent. The remaining categories contained only 1-2 appearances each. *USA Today* was more likely to portray athletes and entertainers than the other two periodicals, and *The Washington Post* was slightly more likely to portray politicians. These numbers include both men and women, and are shown in raw form in Table 5.

Table 5. Leader Type by Publication (print only)

	<i>NY Times</i>	<i>Washington Post</i>	<i>USA Today</i>	Total
Politics	36.4%	45.2%	23.1%	33.9%
Business	3%	2.4%	0%	1.6%
Law	3%	2.4%	0%	1.6%
Academia	3%	0%	0%	.8%
Athletics	33.3%	31%	44.2%	37%
Entertainment	21.2%	19%	30.8%	24.4%
Religion	0%	0%	2%	.8%

Digital

Of the individuals and groups appearing in online photos, 27.4 percent were female -- 39.1 percent of which were portrayed as leaders. This shows a decrease of 13.4 percent when compared to female leaders in print. This may be because roles were more difficult to identify online, due to smaller and poorer quality photos, but men were also 3.5 times more likely to appear as leaders than women (909 male leaders vs. 258 female leaders). Additionally, 35 percent of women in digital photos appeared as stereotypes – 4.5 percent more than print – making identification issues a less-likely culprit. Both were about the same when in terms of counter-stereotypes, with digital clocking it at 12.1 percent and print at 13.6 percent. These variables suggest that digital news may contain

greater gender bias than print news. This might be due to the tendency to publish more “serious” content in print that is more likely to contain leaders in general, compared to digital content which may be “softer” and more prone to stereotypical images. One indicator of this is the slightly higher percentage of leaders in entertainment online (24.4 percent print vs. 26.2 percent digital among all leaders of both genders combined).

The majority role for women was entertainer/ artist in digital news, with 142 appearances or 21 percent of all women. The roles of political leader and wife/ girlfriend tied for second with 81 instances, or 12 percent each of all women. Physical object was the third most common role, accounting for 9.5 percent of all females. After wife/ girlfriend and physical object, victim comprised 5.6 percent of women, 4.9 percent mother/ caregiver, and 1.6 percent nurse, teacher, etc. If the role of entertainer/ artist were not to have been included, only 17.1 percent of women would have been leaders -- again making my hypothesis that will appear more often in stereotyped role than leadership role correct had I defined leader in a different way.

Table 6. Leader Type by Gender (digital)

	Gender			Total %
	male	female	mix (group)	
politics	39%	31.5%	53.8%	37.5%
business	1.2%	1.2%	0%	11.9%
science	.4%	0%	0%	.3%
medicine	.8%	.8%	0%	.8%
law	.6%	3.5%	0%	1.2%
academia	.6%	1.2%	0%	.7%
athletics	36.5%	5.1%	0%	29.3%
entertainment/ arts	17.8%	55.3%	38.5%	26.2%
religion	1.2%	0%	0%	.9%
military officer/ CIA	.7%	1.2%	0%	.8%
engineer/ tech	1.3%	.4%	7.7%	1.2%
Total Count	906	257	13	1176

Just half of the female politicians, 40 instances, were counted in the counter-stereotypical category (12.1 percent) because the other half was entirely comprised of Michelle Obama playing the role of First Lady, which is not necessarily counter-stereotypical. There were 10 instances of female athletes (1.5 percent of women) and 9 (1.3 percent) instances of female members of the military/ intelligence community. Counter-stereotypical women were the rarest breed among both print and digital. Results across the newspapers did vary significantly for digital, though. The table below demonstrates the differences between the 3 publications studied.

Table 7. Leader Type by Publication (digital only)

	<i>NY Times</i>	<i>Washington Post</i>	<i>USA Today</i>
Politics	25.2%	53.6%	23.1%
Business	2.6%	.6%	1.2%
Science	.9%	.4%	.2%
Medicine	1.3%	.4%	.9%
Law	.9%	1.3%	1.2%
Academia	2.6%	.4%	0%
Athletics	27%	20.8%	40.7%
Entertainment	38.3%	18.3%	30.8%
Religion	0%	1.1%	1.2%
Military/ CIA	0%	1.7%	0%
Engineer/ Tech	1.3%	1.5%	.7%

Table 8. Female Representation by Newspaper (digital)

	<i>NY Times</i>	<i>Washington Post</i>	<i>USA Today</i>
Female leaders	28.8%	48.6%	38.9%
Female stereotypes	36.6%	31.0%	37.0%
Counter-stereotypes	7.9%	20.4%	8.5%
% Female overall	27.6%	22.6%	28.9%

The Washington Post appears to hold the least gender bias, though it has the smallest overall proportion of females in its photos. This may be due to the political focus of the *Post*, while the other two newspapers tend to display more entertainment and sports content. *The New York Times* contains a greater percentage of women than the *Post*, but portrays significantly more women in stereotypical roles than it does leadership roles, and less than 8 percent of women are shown in counter-stereotypical roles. *USA Today* has the highest percent of women of all three papers, but also the highest percent of female stereotypes and only 8.5 percent counter-stereotypes.

The differences in types of leaders, for men and women combined, were more pronounced between the different newspapers online. Overall, 37 percent of individuals

and groups portrayed were political leaders, followed by 29 percent athletes and 26.6 percent entertainers and artists. *The Washington Post* accounted for the vast majority of all political individuals and groups, providing 64.3 percent of all political leaders that appeared across the 3 periodicals and 53.4 percent of all individuals and groups that appeared in *The Washington Post*. The others were dominated by athletes and entertainers (*The New York Times* = 65.3 percent leaders that are athletes/ entertainers and *USA Today* = 71.2 percent athletes/ entertainers).

Summary

Table 9. Females in Print vs. Online

*Females only	Print	Online
Leaders	52.5%	39.1%
Stereotypes	30.5%	35%
Counter-stereotypes	13.6%	12.1%
Entertainers	35.6%	21%
Non-entertainment leaders	16.9%	17.1%

My hypothesis that digital homepage photos would show an increased percent of women compared to print was technically correct, as digital news contained 27.4 percent women and print contained 24.4 percent. However, women actually fared better in print in terms of the proportions of female leaders and stereotypes. More women, 52 percent, appeared in leadership roles in print than digital, 39.1 percent, and less appeared in stereotyped roles -- 30.5 percent and 35 percent respectively. Print even came out slightly ahead in counter-stereotypical roles for women, 13.6 percent versus 12.1 percent.

As I predicted, men did dominate the traditionally newsworthy category of political leaders across print and digital, but were also more likely to appear as athletes. Very few business leaders appeared. Women leaders were most likely to appear as entertainers, and this was the third largest category for male leaders as well. Considering that I provided 11 categories of leadership to code within, these results may say something about the specific definition of newsworthy that makes up our front pages and homepages today. Although the types of leaders that appeared in all three papers fell primarily in three categories (politics, entertainment, and sports made up more than 90 percent of all leaders), the proportions of each leader type varied by publication. *The Washington Post* showed the most politicians and *USA Today* showed the most athletes and entertainers, with *The New York Times* falling towards the middle in each category. However, only in the *New York Times* was there a significant difference between print and digital in percent of each type of leader, with 11.2 percent *less* politicians and 17.1 percent *more* entertainers online compared to print – suggesting softer news online than in print.

Overall, my findings for this question were not very consistent my predictions. This seems to be due to a surprising number of female entertainers and artists that skewed the female leadership role higher in both print and digital. It appears that trends in leadership roles are similar for both print and digital with over 90 percent of all leaders falling into politics, entertainment, or athletics, though *The New York Times* shows a marked increase entertainers and fewer politicians online than in print. This brings up some interesting questions about the nature of content in the struggling newspaper industry, which I delve into in my Discussion section.

RQ3: Are female leaders more often portrayed in a positive or negative light compared to male leaders?

H3: I expect that tone will be more positive for female leaders than male leaders, as Yun (2007) and others have found.

Print

In terms of tone, 71 percent of female leaders were portrayed in a positive light, 16.1 percent were neutral, and 12.9 percent were negative. Male leaders were portrayed as positive 41.7 percent of the time, and negative 29.2 percent of the time. They were neutral 29.2 percent of the time. Thus, the second part of this hypothesis was correct, as women in leadership were more likely to be portrayed positively than men. It may be that women in leadership are portrayed more positively because women in general receive more positive treatment in the news. This appears to be true, as 71.2 percent of women overall were positive, compared to only 36.5 percent of all men appearing in a positive light.

Digital

The tone of female leaders in digital news was 58.5 percent positive, 26.4 percent neutral, and 15.1 percent negative. Males leaders appeared positive 40.3 percent of the time, neutral 35.9 percent of the time, and negative 23.9 percent of the time. Again, the second part of my hypothesis was correct -- that women leaders are more likely to be portrayed positively than male leaders -- though there was a significant difference in the amount of positivity between print and digital news. This seems to be due to a greater

proportion of neutral individuals and groups, likely because digital photos can at times be thumbnail size and contain no headline or caption, making tone and other characteristics difficult to distinguish. This becomes more apparent when we look at tone for all men and women rather than just leaders. For all women, 55.5 percent were positive, 8.3 percent were negative, and 36.2 percent were neutral. For all men, 35.4 percent were positive, 20.3 percent were negative, and 44.3 percent were neutral.

RQ4: Are minority women depicted more or less often in front-page news photos than Caucasian women, and in what types of roles do they most often appear? In other words, is race a strong indicator of female stereotyping?

H4: I anticipate that more white women will appear in front page photos than minorities, and I expect minority females to be shown more often as victims and in other stereotypical roles rather than leaders, as past research has shown. Minority women online will be slightly less stereotyped than in print.

Print

Race was easier to determine in print photos, as images were generally larger and clearer than many of the digital thumbnails, and captions seemed to include more personal details. Overall, the ethnic demographics of males and females combined in print front pages were: 49.2 percent white, 17.8 percent black, 9.9 percent unknown, 7.9 percent Arab/ Persian, 4.5 percent Hispanic, 4.1 percent mixed groups, 2.9 percent East Asian, 2.1 percent Southeast Asian, .8 percent Afghan/ Pakistani, and .8 percent Pacific islander.

Among the small number of examples in print, 61 percent of all women were white, 33.9 percent minority, 1.7 percent mixed race groups, and the rest unknown. In

print, 30.5 percent of all women were in stereotyped roles and 52.5 percent were leaders. 60 percent black women were portrayed in stereotyped roles, compared to 25 percent of white women. Additionally, 33.3 percent of women of all other minorities were shown in stereotypical roles. It therefore appears that most groups of minority women are more likely to appear in stereotyped roles in print news photos than are white women.

Overall, 45 percent of minority women combined were portrayed in stereotypical roles and 45 percent were portrayed in leadership roles. White women fared better, at 55.5 percent leaders and 25 percent stereotypes -- proving my hypothesis correct. But, again, these numbers are too small to draw firm conclusions.

Digital

The overall racial composition of men and women in digital photos combined was: 45.2 percent white, 24.2 percent unknown, 17.9 percent black, 4.6 percent mixed race groups, 3.1 percent Arab/ Persian, 1.9 percent Hispanic, 1.4 percent East Asian, 1 percent Southeast Asian, .5 percent Afghan/ Pakistani, and .3 percent Pacific Islander (which was comprised entirely of Manti Te'o).¹⁰

My hypothesis was correct in saying that white women would be the majority in news photos (57.3 percent), but the ratio of female leaders to stereotypes varied by race. It seems to be true that minority women, when present, are more likely to be appear as victims than white women. Excluding women of unknown race and mixed race groups, minority females combined appear as victims 10.6 percent of the time compared to white

¹⁰ Compared to US Census statistics, the largest discrepancy in representation is among Hispanics, who constitute over 16% of our population, but less than 2% of our digital homepage photos – an occurrence evident in print as well.

women at 4.1 percent of the time. On the upside, 39.3 percent of minority women appear as leaders -- exactly one percent more than the percent of minority women who appear as stereotypes, 38.3 percent. White women were somewhat less likely to be portrayed in stereotypical roles (36.6 percent) and more likely to be portrayed as leaders (48.5 percent), proving my hypothesis correct. However, minority women were slightly more likely to appear in counter-stereotypical roles, 15.3 percent, than white women, 14.2 percent.¹¹

Women from the Middle-East and Southeast Asia were the most likely to appear in stereotypical roles (81.3 percent), which may be indicative of cultural norms in these regions. White women appeared as the second most stereotypical at 36.6 percent (142 out of 388 appearances), with an obviously much larger N. Black women in digital homepage photos were stereotypes 26.6 percent of the time, compared to 34.8 percent of women of ambiguous race (unknown), 18.2 percent of Hispanic women, and 14.3 percent of East Asian women. Digital front pages therefore oppose the results of print, with white women being more likely than most other races to appear in stereotyped roles, aside from those of middle-eastern and Southeast Asian ethnicities.

White stereotypical women appeared most frequently as wives/ girlfriends, followed by physical objects, and a smaller percentage as victims. Black stereotypical women also appeared most often as wives/ girlfriends -- some of which no doubt was accounted for by Michelle Obama when she was playing the role of wife to the President in photos -- followed by victim, mother, and physical object by a lesser percentage.

White women appeared as leaders 48.5 percent of the time, followed by black women at

¹¹ Overall, women in digital photos were 12.1% counter-stereotypical. The reason this is lower than minority and white counter-stereotypes is due to a large number of women of unidentified ethnicity who were also neutral in role.

41.3 percent, East Asian women at 35.7 percent, and Arab/ Persian women at 10 percent. White women dwarfed women of all other ethnicities in raw numbers – comprising 388 of 677 women in digital news photos.

Summary

Both print and digital news photos portray minority women less frequently than white women. When minority women do appear, they seem to be more likely to play stereotypical roles, such as the victim, than leaders. That said, 39.3 percent of minority females were portrayed as leaders in digital photos and 45 percent were portrayed as leaders in print, compared to white women at 48.5 percent (digital) and 55.5 percent (print) – a difference of only about 10 percent. This implies that, although some additional bias against minority women may exist in comparison to white women, minority females appear to be making promising gains as leaders and counter-stereotypes on the front page and homepage.

Discussion

My study found a small difference between the overall gender demographics of print and digital front-page news photos, with print containing 69.9 percent men and 24.7 percent women and digital portraying 67.6 percent men and 27.4 percent women. There was an enormous difference, though, in the number of images that appeared online versus the number that appeared in print – almost 10 times more photos each day in print than digital. The total N for print came out to 242 individuals and groups, compared to digital at 2581 over a 14-day sample. This shows that despite massively increased space to diversify content on homepages, women are appearing only slightly more often. Even more surprising, the women who appeared online were more likely to be portrayed in stereotypical roles and less likely to be portrayed in leadership roles than the women in print photos. 52 percent appeared in leadership roles in print compared to 39.1 percent in digital, and 30.5 percent appeared in stereotypical roles in print while 35 percent were portrayed in stereotypical roles online. This suggests that the selection criteria for homepage photos may favor stereotypical portrayals of women – the reverse of my anticipated outcome.

One possible explanation is an increase in “soft” news online compared to print. My results do not necessarily support this theory, as print photos contained roughly equal the amount of entertainers as online photos and even more sports coverage, if we average all three newspapers. That said, only “leaders” were measured as an indicator of subject matter, meaning that coverage without a female or male leader in the photo was not counted. For this reason, it is difficult to conclusively say the idea of more “soft” news online is false. There may be related factors leading to more stereotypes and fewer female

leaders online than in print, despite comparable sports and entertainment coverage in both formats when leaders alone are considered.

Although both formats portrayed an enormous amount of entertainment and sports leaders, which we consider the topics of “soft news,” the necessity of frequent updates throughout the day and the popularity and ease of publishing such content might be leading the overextended staff of today’s newspapers to post more of such photos online. The limited space of print may act as a filter to keep out an excess of stereotypical female because these photos likely receive more thought and consideration during selection. This cannot be conclusively proven by my study, but is a theory worthy of further investigation based on these results. Increased gender inequity may be just one negative symptom of an overall shift towards softer news.

In demonstration of this possible shift, female leaders were most likely to be entertainers, accounting for 67.7 percent of female leaders in print and 55.3 percent of female leaders in digital photos. Keeping in mind that 13.4 percent *less* women appeared as leaders online but that entertainer coverage was 1.8 percent *higher* online overall (including both genders), this shows that increased entertainment coverage does not necessarily mean more female leaders. Instead, 21.4 percent of all women online appeared as physical objects or wives/ girlfriends. In other words, they were likely the accessory to a male leader, like an actor or politician at an appearance, or a scantily-clad model/ actress who was listed as unnamed and therefore not a leader. This reinforces the notion that news is softer online, and that the increase in soft news may be leading to greater female stereotypes and few female leaders on homepages.

As for tone, 71 percent of female leaders in print were portrayed in a positive light compared to 58.5 percent positive in online photos. The difference between tone in print and digital photos seems to be caused by a greater proportion of neutral individuals and groups – likely digital photos in thumbnail size that contain no headline or caption, making tone and other characteristics difficult to distinguish. The comparison to the tone of all men and women, both leaders and otherwise, reinforces this idea. For all women, 55.5 percent were positive, 8.3 percent were negative, and 36.2 percent were neutral in digital photos. For all men, 35.4 percent were positive, 20.3 percent were negative, and 44.3 percent were neutral. As apparent from these numbers, men appeared in a less positive light both in general and as leaders compared to women.

The final investigation of this study was the idea that minority women may be more subject to stereotypes than white women. I studied this factor to see if ethnicity influenced stereotyping and leadership appearances as compared to gender alone. Both print and digital news photos portrayed minority women less frequently than white women, as one would expect. But, when minority women did appear, they were slightly more likely to play stereotypical roles, such as a victim, than leaders. The number of minority women in print photos was too small to draw firm conclusions, but the division was equal among those that appeared – 45% of minority women combined were portrayed in stereotypical roles and 45% were portrayed in leadership roles. White women fared better, at 55.5% leaders and 25% stereotypes -- proving my hypothesis correct. Among the larger dataset of digital photos, 39.3% of minority women appear as leaders -- exactly one percent more than the percent of minority women who appear as stereotypes, 38.3%. White women were somewhat less likely to be portrayed in

stereotypical roles (36.6%) and more likely to be portrayed as leaders (48.5%). This shows that ethnicity is a significant factor to consider in evaluating that status of women in news photos.

Perspective from photo editors

Interviews with two photo editors, one from *The New York Times* and one from *USA Today*, offered insight into the possible causes behind these numbers. Denny Gainer, a visual journalist, has been working in news and photo editing since the mid-1970s and was one of the very first people at *USA Today* to start building content for the website back in 2001. He explained that online news is now the focus of every major news organization as they struggle to survive in today's changing media world. The resources for print and digital news are entirely shared according to Gainer.

This offers one explanation for the seemingly large amounts of soft news in both print and digital, as fewer people must now create more content and soft news is generally less resource-intensive. This effect may be multiplied online as about 10 times more content is needed – possibly leading to the symptom of greater stereotyping and fewer female leaders due to the nature of soft news. Gainer did say that entertainment and sports content seems to be increasing across newspapers, but was unsure of how this may or may not effect gender representation. Instead, he offered interesting input as to the evolution of subject matter since the advent of digital.

As discussed in the introduction and literature review, readers might have more say in today's news content than ever before, thanks to analytics. Gainer enthusiastically agreed with this assessment. He said that large advances in the accuracy and breadth of

user analytics (visitors to the *USA Today* website and their behavior) have been made, even within the last year. Editorial decisions are now strongly affected by the type of news most popular amongst online readers, i.e. changes are made in real time to the homepage to respond to user behavior.

The ability of readers to “vote with clicks” on the content they desire may be leading to new trends in the definition of “newsworthy” that are effecting female portrayals, among other things, in comparison to the news of the past. All three newspapers contained a surprising amount of entertainment content, which could be the result of high demand for this type of story -- driving up the number of female leaders in the form of actresses and musicians across both print and digital since resources are shared. This is not necessarily a positive gain for women, as actresses and musicians are rarely counter stereotypes. Sports also provide many of the leaders on our homepages and front-pages, though almost entirely male, followed by politics. It would be interesting for a future study to measure the different types of subject matter on front pages today versus decades past to capture a better measure on how front-page news has changed since the advent of the Internet. Because only photos containing people were coded in this study, subject matter that did not include at least one group or individual was not tracked, so such conclusions cannot be fully drawn here.

Additionally, editors are more particular about the quality of photos that go into print than online. Print offers limited space and is static and permanent, challenging the editor to select the most compelling images and stories available. Gainer lamented that *USA Today* constantly updates their digital homepage throughout the day, which does not always allow the high-quality images to receive the screen time they deserve. He also

noted that mobile technology presents a real issue for news photos, as the images appear as tiny icons that do not allow for full appreciation. He described the occasional tension between “photo people” and “word people” in that a photo person will select a photo based on composition and artistic quality in addition to relevance, while a word person might select a more literal or cliché portrayal with easy appeal to accompany a story. This may indicate a trend in the news towards “crowd-pleasing” that may be increasing the allotment female representation due to the nature of softer news content, but possibly promoting stereotypical portrayals as well.

Changing times in the newsroom

Alongside the increasing trend towards online news, other changes have occurred. For one, more women seem to be entering the newsroom than ever before. According to Lindsay Blatt, Photo Editor for *The New York Times*, most of the photo editors she knows today are female. Gainer also noted that a majority of photo editors and online content managers at *USA Today* are women, except the Sports section. He conducted a head count of the “homefront” photo editors, or those that handle the digital homepage, which currently include 6 women and 2 men. He claimed that this is “a vast difference from 10 years ago.” The pattern appears to hold true for other positions at major news organizations. In one example, Jill Abramson became the first female Executive Editor in the history of *The New York Times* in September 2011. These changes may be affecting news content, though that is a question beyond the scope of this study. They certainly reflect the shift seen in other industries towards a greater number of women at work and in positions of authority. That said, both Blatt and Gainer remarked that certain news jobs,

such as photographer, are still predominantly male, while others, such as photo editor, seem to be comprised of mostly women.

Gainer believes that news photos today are a generally accurate portrayal of gender in society, and thinks that front-page news photo demographics reflect the increasing number of women in powerful roles. But, he remembers a time when that was not the case. A decade ago or so, *USA Today* had to make a concerted effort to include diversity in its news. He said that photographers were specifically instructed to include photos of minorities when on assignment. One example he described was George W. Bush's 2nd inauguration. Editors wanted at least one photo of an African-American, and it took particular efforts by the photographers to find an individual fitting that description. He said that this is no longer the case in his experience, as he has seen diversity arise more naturally in the news than before.

Blatt disagrees. She thinks that gender and diversity may still play a significant role in photo selection. She described how a woman or minority may be sought out for a story or photo to ensure diversity in news coverage. Neither Gainer nor Blatt have noticed stories or photos about women being cut more frequently than stories about men, but have noticed efforts to avoid portraying only white males. This indicates awareness of potential bias and efforts to achieve balance -- a change from past studies that found little awareness of bias in the newsroom and a tendency to drop stories about women first. Gainer recalled that the issue of gender in the news was a large topic of discussion in years past. Perhaps the awareness raised by researchers like Douglass (1995) has helped reduce gender bias that researchers once found. Further study would be necessary to confirm this.

A final, but no less significant, change is the switch to digital photography. Gainer estimated that one photo arrived about every 15 minutes through the newswire in the days of film photography, but now an innumerable number of photos arrive by the minute. It is possible that editors no longer have to request photos of certain demographics because they have an enormous number of options to choose from. The photos are tagged by characteristics such as the name of the individual, event, date, and so on. Editors can quickly search the database for a photo that meets their criteria. Like the “vote with clicks” phenomena that might be brought on by analytics, digital technology seems to be making photography more democratic. The greater diversity of photos could be increasing gender and racial diversity in the news. Again, this warrants more research.

Women on the front page today

The overall percentage of women to men in front page photos in digital (27.4 percent female, 67.6 percent male, and the rest mixed gender groups) and print (24.7 percent female, 69.9 percent male, and the rest mixed gender groups) is similar to the findings of the 2010 Global Media Monitoring Project for the gender distribution of U.S. news subjects in print stories (27 percent female and 73 percent male).¹² Put another way, the expectation that increased space online would lead to more female representation does not seem to be the case. There are more photos online overall, but the gender distribution does not seem all that much better than print. The GMMP included U.S. newspapers large and small and a few television channels, and covered all sections from sports to politics. But, it excluded online news aside from one website: *The Huffington Post*. Since my analysis of just the digital and print front pages resembles that of the

¹² <http://whomakesthenews.org/images/stories/restricted/national/USA.pdf>

GMMP, it could bode well for the accuracy of national newspapers online and in print as a national indicator of women in the news. It may also mean that the front page is a generally representative indicator of the demographics appearing throughout the news.

The GMMP's findings for stereotypical versus counter-stereotypical portrayals were somewhat different, which could be due to difference in definitions. Overall the GMMP found 52 percent of stories supported stereotypes and 13 percent contradicted stereotypes. In my study, 30.5 percent (print) and 35 percent (digital) of women in photos appeared in stereotyped roles and 12.1 percent (digital) and 13.6 percent (print) appeared as counter-stereotypes. Counter-stereotypes are close to spot-on with the GMMP, but the significantly lower results in my study for stereotypes could be explained by the exclusion of television and *The Huffington Post*. Or, they could be explained by the fact that my study focused only on major national newspapers.

Unfortunately, the GMMP does not breakdown roles into leadership categories for comparison to my findings. With the definitions used in this study, it appears that more women do appear in leadership roles in today's news photos than in stereotypical roles. This surprising result (more women as leaders in print than online) is likely driven by two factors: 1) roles are more easily identified in print photos because they are larger and always captioned and 2) print news is not necessarily influenced by "clicks," a.k.a. reader popularity, as much as digital news, meaning it may be less likely to portray "crowd-pleaser" photos that may include sexualized or otherwise stereotyped women, and more likely to portray more "serious" photos.

As previously mentioned, most female leaders appeared as entertainers/ artists – a role that is not counter-stereotypical for women – accounting for much of the increase in

overall percentage of women and especially the high amount of female leaders.¹³ Female entertainers were not double-coded as stereotypical unless portrayed in a sexualized manner or shown as a man's wife or girlfriend. The second most common type of female leader was in politics (12 percent of all digital women and 15.3 percent of all print women), but tied exactly with the stereotypical portrayal of wife/ girlfriend in digital (12 percent) and only slightly beat out the same stereotype in print (13.6 percent of all women).

The fact that female politicians appear just as often as wives and girlfriends shows promise for the evolving portrayal of women in the news. Although a greater number of counter-stereotypical roles for women may be desirable, especially in sports, it does appear that female leaders are accepted in the news, with positive portrayals 71 percent of the time in print and 58.5 percent of the time in digital -- significantly more positive than male leaders (41.7 percent positive in print and 40.3 percent positive in digital). This may also be a reflection of positive response to female leaders in society.

¹³ Surprisingly, the GMMP found only 3% of print news coverage to fall under their entertainment and sports category when its most recent data was collected in 2009. This may indicate a rapid progression towards entertainment content over the past 3-4 years, or could be caused by other factors such as the inclusion of all newspaper sections in their analysis.

Conclusions

Talk abounds of the uncertain future of newspapers since the advent of online news, with considerable attention to sweeping layoffs, new revenue models, and so on. But, little discussion has occurred about how this switch is changing the news itself. By examining the digital and print front pages of *The New York Times*, *The Washington Post*, and *USA Today*, this study shows how online and print news photos differ in the demographics of the individuals they include. The imperative of equitable and counter-stereotypical gender representation has been internationally recognized since the United Nations established the Global Media Monitoring Project in 1995, but even this massive global content analysis has not yet measured the way females are portrayed in U.S. digital news. The results of this study do show a greater proportion of women appearing online (27.4 percent) than in print (24.7 percent), but a greater proportion of female leaders and fewer stereotypes in print. This demonstrates a kind of “two steps forward, one step back” movement for women in the news.

When the GMMP first began in 1995, it found women to be present in only 17 percent of news stories compared to men in 83 percent of news stories. These initial results are global, but the U.S. has been shown to fall with a couple percentage points in subsequent studies. The most recent report in 2010 found women in 27 percent of U.S. news and 24 percent of news globally. Though it took 5 years to achieve this growth, the progress showed female representation to be heading in a positive direction. My evaluation of three national U.S. newspapers from the end of 2012 to the beginning of 2013 showed little, if any, progress since the last GMMP. Though this consistency bodes

well for the accuracy of my results, it does bode well for female representation in today's news – both digital and print.

I found that female leaders, when they do appear, are most often as a type of entertainer or artist across both formats. The second most common roles for women both online and print are politics and wife/ girlfriend, which tie in print percentage and are very close in digital photos. Only 12.1 percent of women in digital appear in counter-stereotypical roles, which generally exclude entertainment, compared to 13.6 percent in print. Female leaders in both print and digital are portrayed in an overwhelmingly positive light -- significantly more so than men -- though print (71 percent) again outdoes digital (58.5 percent). Differences in portrayal between minority women and white women were less pronounced in digital than print, but in both formats white women were more likely to appear as leaders and less likely to appear as stereotypes than minority females.

It is important to note that digital photos were more than 10 times as abundant as print photos for the same time period. The 14 days sampled yielded 242 individuals and groups appearing in print while digital yielded 2581. The significant difference in N shows that online news does have much more space for content, but this content is not of higher quality or necessarily greater diversity. People and groups appearing in digital photos were often difficult to characterize during coding because they appeared in tiny thumbnail photos -- causing a greater proportion of digital cases to be excluded from the study. Those that did appear were more stereotypical compared to print rather than counter-stereotypical.

As digital readership continues to grow and print diminishes, the demographic representation of online news becomes increasingly important. The upheaval of the media industry seems to be redefining “news,” and may become less about telling the public what they *need* to know, and more of what they *want* to know. The increasing amount of women in leadership positions – from Olympic athletes to CEOs – only seem to be appearing in the realms of politics and entertainment. The dominance of “soft news” content in the news could be of special concern in terms of gender stereotypes, as these leaders may reinforce rather than undermine female stereotypes. More research is needed to fully understand how the current upheaval in our media is affecting gender portrayals and society’s perception of female leaders.

References

- Allern, S. (2002). Journalistic and commercial news values. *Nordicom Review*, 23, 137-152.
- Anderson, John R. (1983) "A Spreading Activation Theory of Memory" in the *Journal of Verbal Learning and Verbal Behavior* 22:261-295
- Armstrong, Cory L. (2004) "The Influence of Reporter Gender on Source Selection in Newspaper Stories" in *Journalism & Mass Communication Quarterly*, 81(1), 139-154.
- Ashley, L. & Olson, B. (1998) Constructing reality: print media's framing of the women's movement, 1966–1986, *Journal of Mass Communication Quarterly*, 75(2), pp. 263–277.
- Ashmore, Richard, Del Boca, Francis & Arthur Wohlers (1986) "Gender Stereotypes" in Richard Ashmore and Francis Del Boca (Eds), *The Social Psychology of Female-Male Relations: a critical analysis of central concepts*, Orlando, FL: Academic Press, pp. 69-119.
- Barnhurst, K. G. (2012). THE FORM OF ONLINE NEWS IN THE MAINSTREAM US PRESS, 2001–2010. *Journalism Studies*, 13(5/6), 791-800.
- Beck, D. B. (1998) The 'F' word: how the media frame feminism, *NWSA Journal*, 10(1), pp. 139–153
- Beck, V. S., Boys, S., Rose, C., & Beck, E. (2012). Violence Against Women in Video Games A Prequel or Sequel to Rape Myth Acceptance? *Journal of Interpersonal Violence*, 27(15), 3016-3031.
- Bingham, J. (2008, November 6). Grand theft auto player jailed for sex attacks on women. *The Telegraph*. Retrieved from <http://www.telegraph.co.uk/news/uknews/3393052/Grand-Theft-Auto-player-jailed-for-sex-attacks-on-women.html>
- Bridge, Junior (1995) "Slipping from the Scene: news coverage of females drops" in *Women, Men, and Media*, Alexandria, VA: Unabridged Communications.
- Brooks, M. (2012, June 22). Hurdler Lolo Jones: Virginitiy has been harder than training for london olympics. *The Washington Post*. Retrieved from http://www.washingtonpost.com/blogs/2012-heavy-medal-london/post/hurdler-lolo-jones-virginitiy-has-been-harder-than-training-for-london-olympics/2012/05/23/gJQAOQo7kU_blog.html
- Bureau of Labor Statistics, (2012). *Women's earnings as a percent of men's in 2010*. Retrieved from website: http://www.bls.gov/opub/ted/2012/ted_20120110.htm
- Buunk, Abraham P. & Pieterneel Dijkstra (2011) "Does attractiveness sell? Women's attitude toward a product as a function of model attractiveness, gender priming, and social comparison orientation" in *Psychology & Marketing* 28(9): 958-973.
- 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.

- Chong, D., & Druckman, J. N. (2007). A Theory of Framing and Opinion Formation in Competitive Elite Environments. *Journal Of Communication*, 57(1), 99-118.
- Coleman, R. (2009). Studying Visuals From a Political Communication Perspective: The Framing and Agenda-Setting Effects of News Images. *Conference Papers -- International Communication Association*, 1.
- Correa, T. (2010). Framing Latinas: Hispanic women through the lenses of Spanish-language and English-language news media. *Journalism*, 11(4), 425-443.
- Creedon, P. J. (1994). *Women, media and sport: challenging gender values*. Sage Publications Inc.
- Dan would rather not see Katie's changes. (2007, June 12). *The New York Daily News*. Retrieved from <http://www.nydailynews.com/entertainment/tv-movies/dan-katie-article-1.224164>
- Dill, K. E., Brown, B. P., & Collins, M. A. (2008). Effects of exposure to sex-stereotyped video game characters on tolerance of sexual harassment. *Journal of Experimental Social Psychology*, 44(5), 1402-1408.
- Dixon, Travis L. and Keith B. Maddox (2005) "Skin Tone, Crime News, and Social Reality Judgments: Priming the Stereotype of the Dark and Dangerous Black Criminal" in the *Journal of Applied Social Psychology* 35(8): 1555-1570.
- _____ and Cristina L. Azocar (2007) "Priming Crime and Activating Blackness: Understanding the Psychological Impact of the Overrepresentation of Blacks as Lawbreakers on Television News" in the *Journal of Communication* 57: 229-253
- Donohew, Lewis (1967) "Newspaper Gatekeepers and Forces in the News Channel" in *Public Opinion Quarterly*, 31(1): 61-68.
- Douglas, Susan J. (1995) *Where the Girls Are: Growing Up Female with the Mass Media* Random House.
- Dow, B. J. (1999). SPECTACLE, SPECTATORSHIP, AND GENDER ANXIETY IN TELEVISION NEWS COVERAGE OF THE 1970 WOMEN'S STRIKE FOR EQUALITY. *Communication Studies*, 50(2), 143.
- Duncan, M. C., Messner, M. A., Williams, L., Jensen, K., Birrell, S., & Cole, C. L. (1994). *Gender stereotyping in televised sports* (pp. 249-272). Human Kinetics Publishers.
- Edelman, Murray (1996) *From Art to Politics: How Artistic Creations Shape Political Conceptions* Chicago: University of Chicago Press
- Elmore, C. (2007). Recollections in Hindsight from Women Who Left: The Gendered Newsroom Culture. *Women & Language*, 30(2), 18-27.
- Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of communication*, 43(4), 51-58.

- Entman, R. M. (2007). Framing Bias: Media in the Distribution of Power. *Journal of Communication*, 57(1), 163-173.
- Evans, L. (2012, September 07). Women's representation in media: the best data on the subject to date. *The Guardian*. Retrieved from <http://www.guardian.co.uk/news/datablog/2012/sep/07/gender-media-best-data-available>
- Everbach, T. (2008). STILL IN THE MINOR LEAGUES: A COMPARISON OF WOMEN'S SPORTS COVERAGE IN FEMALE- AND MALE-EDITED NEWSPAPER SPORTS SECTIONS. *Southwestern Mass Communication Journal*, 23(2), 55-68.
- Ewbank, M. P., Barnard, P. J., Croucher, C. J., Ramponi, C., & Calder, A. J. (2009). The amygdala response to images with impact. *Social cognitive and affective neuroscience*, 4(2), 127-133.
- Falk, E. (2008). Gender Bias? The Press Coverage of Senator Hillary Clinton's Announcement to Seek the White House. Conference Papers -- National Communication Association, 1.
- Falk, E. (2009). PRESS, PASSION, AND PORTSMOUTH: NARRATIVES ABOUT "CRYING" ON THE CAMPAIGN TRAIL. *Argumentation & Advocacy*, 46(1), 51-63.
- Fenton, N. (2010). News in the digital age. *The Routledge Companion to News and Journalism*. Routledge: New York, 557-567.
- Gerbner, G., & Gross, L. (1976). Living with television: The violence profile. *Journal of communication*, 26(2), 172-194.
- Gibson, K. L. (2009). Undermining Katie Couric: The Discipline Function of the Press. *Women & Language*, 32(1), 51-59.
- Gleason, L. (2009). Propagandizing the Status Quo: The Differential Impact of Cultivated Worldviews on Minorities. Conference Papers -- International Communication Association, 1-26.
- GMMP (2010). *Who makes the news?: The 2010 global media monitoring project*. Toronto, Canada: World Association for Christian Communication.
- Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Cambridge, MA: Harvard University Press.
- Hall, Stuart (1973) "The social determinations of news photographs" in S. Cohen & J. Young Eds., *The manufacture of news: Deviance, social problems and the mass media* pp. 176-190 London: Constable.
- Hall, Stuart (1993) "Encoding, decoding" in S. During Ed., *The cultural studies reader* pp. 90-103 New York: Routledge.
- Harp, D., Loke, J., & Bachmann, I. (2010). First Impressions of Sarah Palin: Pit Bulls, Politics, Gender Performance, and a Discursive Media (Re)contextualization. *Communication, Culture & Critique*, 3(3), 291-309.

- Harp, D., Loke, J., & Bachmann, I. (2011). More of the Same Old Story? Women, War, and News in Time Magazine. *Women's Studies In Communication*, 34(2), 202-217.
- Hasan, Y., Bègue, L., & Bushman, B. J. (2013). Violent Video Games Stress People Out and Make Them More Aggressive. *Aggressive Behavior*, 39(1), 64-70.
- Hatfield, K. L. (2008). Falling towers, emerging iconography: A rhetorical analysis of Twin Tower images after 9/11. *Texas Speech Communication Journal*, 33: 62-73.
- Hayes, D. & Lawless, J. (2013) "A Non-Gendered Lens: The Absence of Stereotyping in Contemporary Congressional Elections."
- Howard, C. (2012, August 22). The new class of female ceos. *Forbes*, Retrieved from <http://www.forbes.com/sites/carolinehoward/2012/08/22/introducing-the-new-class-of-female-ceos/>
- Huddy, L. (1996) Feminists and feminism in the news, in: P. Norris (Ed.) *Women, Media and Politics*, pp. 183–204 (New York: Oxford University Press).
- Kahlor, L., & Eastin, M. S. (2011). Television's Role in the Culture of Violence Toward Women: A Study of Television Viewing and the Cultivation of Rape Myth Acceptance in the United States. *Journal of Broadcasting & Electronic Media*, 55(2), 215-231.
- Karlsson, M. (2012). Charting the liquidity of online news: Moving towards a method for content analysis of online news. *International Communication Gazette*, 74(5), 385-402.
- Kautsky, Robert & Andreas Widholm (2008) "Online Methodology: Analysing News Flows of Online Journalism" in *Westminster Papers In Communication & Culture*, 5(2), 81-97.
- Koehler, E. M. (1998). Watchdog Concept: News Media Keeping an Eye on Government Officials. *History of Mass Media in the United States* (pp. 691-692).
- Krol, B. (2009). Framing Sarah Palin: Gendering a Vice-Presidential Nominee. Conference Papers -- National Communication Association, 1.
- Latu, I. M., Stewart, T. L., Myers, A. C., Lisco, C. G., Estes, S., & Donahue, D. K. (2011). What We "Say" and What We "Think" About Female Managers: Explicit Versus Implicit Associations of Women With Success. *Psychology Of Women Quarterly*, 35(2), 252-266.
- Len-Ríos, M. E., Rodgers, S., Thorson, E., & Yoon, D. (2005). Representation of women in news and photos: Comparing content to perceptions. *Journal of Communication*, 55(1), 152-168.
- Levie, H. & Hathaway, S. (1988) Picture recognition memory: a review of research and theory. *Journal of Visual Verbal Learning*. 8(1), 6-45.
- Lumsden, L. (2009). GOOD MOTHERS WITH GUNS: FRAMING BLACK WOMANHOOD IN THE BLACK PANTHER, 1968-1980. *Journalism & Mass Communication Quarterly*, 86(4), 900-922.

Manning, J. Congressional Research Service, (2013) *Membership of the 113th congress: A profile* (R42964). Retrieved from website: <http://www.fas.org/sgp/crs/misc/R42964.pdf>

Marcellus, J. (2005). Gender and Newsroom Cultures: Identities at Work. *Feminist Media Studies*, 5(3), 398-400.

Matheson D. (2004) 'Weblogs and the Epistemology of the News: Some Trends in Online Journalism', *New Media Society* 2004, 6: 443-468.

MediaWatch (1995) Global Media Monitoring Project. Press release, <http://www.mediawatch.com>, accessed 1 December 2003.

Meeks, L. (2012). Is She 'Man Enough'? Women Candidates, Executive Political Offices, and News Coverage. *Journal Of Communication*, 62(1), 175-193.

Mendes, K. (2011). Framing Feminism: News Coverage of the Women's Movement in British and American Newspapers, 1968-1982. *Social Movement Studies*, 10(1), 81-98.

Meyers, M. (1996). *News coverage of violence against women: Engendering blame*. Sage Publications, Incorporated.

Meyers, M. (2004). African American women and violence: gender, race, and class in the news. *Critical Studies In Media Communication*, 21(2), 95-118.

Newhagen, J. E., & Reeves, B. (2006). The evening's bad news: Effects of compelling negative television news images on memory. *Journal of Communication*, 42(2), 25-41.

Newspaper Association of America, (2012). *Newspaper web audience*. Retrieved from website: <http://www.naa.org/Trends-and-Numbers/Newspaper-Websites/Newspaper-Web-Audience.aspx>

Patten, E. Pew Research, (2011). *Women in the u.s. military: Growing share, distinctive profile*. Retrieved from website: <http://www.pewsocialtrends.org/2011/12/22/women-in-the-u-s-military-growing-share-distinctive-profile/>

Quinn, S. (2012, July 29). Lolo Jones: Track sensation has slim chance at bringing home Olympic gold. *Bleacher Report*. Retrieved from <http://bleacherreport.com/articles/1265766-lolo-jones-track-sensation-has-slim-chance-at-bringing-home-olympic-gold>

Raja, T. (2012, August 12). US female Olympians have won more medal points than all but four countries. *Mother Jones*, Retrieved from <http://www.motherjones.com/mixed-media/2012/08/us-women-olympic-athletes-medals>

Rodgers, Shelley & Esther Thorson (2003) "A Socialization Perspective on Male and Female Reporting" in the *Journal Of Communication*, 53(4), 658-675.

Ross, K., & Carter, C. (2011). Women and news: A long and winding road. *Media, Culture & Society*, 33(8), 1148-1165.

Ryan, C. U.S. Census Bureau, (2012). *Educational attainment in the United States: 2009* (P20-566). Retrieved from website: <http://www.census.gov/prod/2012pubs/p20-566.pdf>

- Sage, M., & David, M. F. (1994). Coverage of women's sports in selected newspapers. *Perceptual and motor skills*, 78(1), 295-296.
- Saleem, M., Anderson, C. A., & Gentile, D. A. (2012). Effects of Prosocial, Neutral, and Violent Video Games on Children's Helpful and Hurtful Behaviors. *Aggressive Behavior*, 38(4), 281-287.
- Saltzis, K. (2012). BREAKING NEWS ONLINE. *Journalism Practice*, 6(5/6), 702-710. doi:10.1080/17512786.2012.667274
- Sandberg, S. (2013). *Lean in: Women, work, and the will to lead*. (1st ed.). New York, NY: Alfred A. Knopf.
- Schomburg-Scherff, Sylvia M. (2000) "The Power of Images: New Approaches to the Anthropological Study of Images" in *Anthropos* 95(1): 189-199
- Seelye, K. (2013, January 1). From congress to halls of state, in new hampshire, women rule. *The New York Times*. Retrieved from http://www.nytimes.com/2013/01/02/us/politics/from-congress-to-halls-of-state-in-new-hampshire-women-rule.html?_r=0
- Sheehy, M., & Hong, J. (2011). Framing the Ideal Woman in Esquire's "Women We Love," 1987-2006. *Journal Of Magazine & New Media Research*, 12(2), 1-17.
- Shepard, R. (2009). CONFRONTING GENDER BIAS, FINDING A VOICE: HILLARY CLINTON AND THE NEW HAMPSHIRE CRYING INCIDENT. *Argumentation & Advocacy*, 46(1), 64-77.
- Shields, A. (2011, January 07). Boehner Bias? Retrieved from <http://msmagazine.com/blog/2011/01/07/boehner-bias/>
- Smith, L. (2012) Shoot, Score, Strip? An Examination of Media Representations of Female Athletes and Their Impact on Collegiate Athletes. (2011). *Conference Papers -- International Communication Association*, 1-25.
- Stevens, Aubrey J., Henson, J., Hopper, M., & Smith, S. (2008) "A Picture is Worth Twenty Words (about the Self): Testing the Priming Influence of Visual Sexual Objectification on Women's Self-Objectification" *Conference Papers -- International Communication Association*, 1-37.
- Stocking, S. H., & Gross, P. H. (1989). *How Do Journalists Think? A Proposal for the Study of Cognitive Bias in Newsmaking*. ERIC Clearinghouse on Reading and Communication Skills, 2805 E. 10th St., Smith Research Center, Suite 150, Bloomington, IN 47405.
- United Nations, (1995). *The United Nations 4th world conference on women: Platform for Action*. Retrieved from UN Women website: <http://www.un.org/womenwatch/daw/beijing/platform/media.htm>
- U.S. Department of Defense, (2011). *Statistics on women in the military*. Retrieved from Women In Military Service For America Memorial Foundation, Inc. website: <http://www.womensmemorial.org/PDFs/StatsonWIM.pdf>

U.S. Department of Labor, Bureau of Labor Statistics. (2012). *American time use survey -- 2011 results*(USDL-12-1246). Retrieved from website: <http://www.bls.gov/news.release/atus.nr0.htm>

Wasburn, P. C., & Wasburn, M. H. (2011). Media coverage of women in politics: The curious case of Sarah Palin. *Media, Culture & Society*, 33(7), 1027-1041.

Willoughby, T., C. Adachi, P. J., & Good, M. (2012). A Longitudinal Study of the Association Between Violent Video Game Play and Aggression Among Adolescents. *Developmental Psychology*, 48(4), 1044-1057.

Woods, D. (2012, May 19). Equal pay? not on the basketball court. *The Indianapolis Star*. Retrieved from <http://usatoday30.usatoday.com/sports/basketball/story/2012-05-19/nba-wnba-basketball-salary-disparity/55079608/1>

Yun, H., Postelnicu, M., Ramoutar, N., & Kaid, L. (2007) “Where Is She?” in *Journalism Studies*, 8(6), 930-947.

Zoch, Lynn M. & Judy Turk (1998) “Women making News: Gender as a Variable in Source Selection and Use” in *Journalism & Mass Communication Quarterly*, 75(4), 762-775.

Appendix A.

Coding

V1. Source

- [1] New York Times
- [2] Washington Post
- [3] USA Today

V1a. Photo number _____

V2. Date _____ (format month/ day/ year)

V2a. Time (digital only) _____ (format 00:00 AM/PM)

V3. Format

- [1] Print
- [2] Digital

V3a. Prominence on page

- [1] Primary (Central photo)
- [2] Secondary (Top portion of page or 1st screen capture)
- [3] Tertiary (Bottom half of page or 2nd & 3rd screen capture)

V3b. Prominence in photo

- [1] Front
- [2] Background

V3c. Does the same photo appear in both the digital and print version of the same newspaper?

- [0] No
- [1] Yes

V4. Number of people / groups being coded in the photo

- [1] 1 person
- [2] 2 people
- [3] 3 people
- [4] 4 people
- [5] 5 people or more

V4a. Group or individual

- [1] Individual
- [2] Group (4 or more individuals)

V5. Gender

- [0] Unknown
- [1] Male
- [2] Female

[3] Mix (group)

V5a. Is this person (or group) an adult or child?

[1] Adult [2] Child [3] Unknown [4] Mix (group)

V5b. Is this person (or group) portrayed as lesbian, gay, bisexual, or transgendered?

[0] No [1] Yes

V6. Is this person (or group) portrayed in a stereotypical female role in the photo?

[0] No [1] Yes

V6a. If so, what stereotypical female role is this person (or group) playing?

[0] Mother or caregiver
[1] Sexual object/ focus on physical appearance/ covered, such as in a burka
[2] Victim [3] Wife or girlfriend
[4] Nurse, school teacher, librarian, secretary, maid or other typical female worker
[5] Other _____

V6b. Is this person (or group) breaking a female stereotype in the photo?

[0] No [1] Yes

V6c. If so, what counter-stereotypical role are they playing in the photo?

[1] Politician [2] Businesswoman [3] Physician [4] Academic (higher-ed only)
[5] Lawyer/ Judge [6] Clergywoman [7] Military/ Intelligence [8] Criminal
[9] Physical laborer (such as mechanic/ construction worker, but excluding sweatshops)
[10] Engineer/ Tech innovator [11] Athlete [12] Other _____

V7. Is this person (or group) playing a leadership role in the photo?

[0] No [1] Yes

V8. If so, what type of leader

[1] Politics [2] Business [3] Science [4] Medicine [5] Law
[6] Academia [7] Athletics [8] Arts/ Music/ Entertainment [9] Religion
[10] Military officer/ Intelligence [12] Engineer/ Technology/ Inventor
[13] Other _____

V9. Profession _____

V9a. Name (if a public figure) _____

V9b. Political affiliation (leave blank unless US politician is being coded)

[0] Unknown [1] Conservative [2] Liberal

V10. Race

[0] Unknown [1] Mixed [2] Black [3] White [4] Hispanic
[5] Native American [6] Southeast Asian (India) [8] East Asian
[9] Arab/ Persian (North Africa & Middle Eastern descent)
[10] Afghan or Pakistani [11] Pacific Islander

V11. Tone (In reference to the individual or group being coded; use caption, headline, & photo only)

[0] Unknown/ Neutral [1] Positive [2] Negative

Appendix B.

Definitions

- **Individual reference number:** The numerical order of each individual and group to be coded.
- **Source, Date & Time,** and **Format** (print or digital) denote the newspaper the individual appears in, the date upon which they appear, and the time they appear if in a digital version of the newspaper.
- **Photo number:** This refers to the order in which a photo is coded, but is not to be confused with the the number marking the order in which to code individuals. When encountering a composite photo where 2 or more images are spliced together, code as separate photos.
- **Prominence:** The photo that appears the primary (largest, central photo) is to be coded as 1 for both print and digital.
 - Print - secondary position is defined as above the fold (midsection) of the page and tertiary is below the fold for print.
 - Digital - For digital, secondary is all photos in the 1st screenshot aside from the largest central photo, which is coded as primary, and tertiary is any photo in the 2nd and 3rd screenshot.

Prominence in photo: A person or group who is in focus and at the forefront of the photo should be coded as Front, while those who are blurry, cut-off, tiny, and/or do not hold a central position in the photo should be coded as Background.

- **Number of people in photo:** Code the number of people/ groups that will be coded from the photo. Most photos will not contain more than 5 distinguishable individuals.
- **Group vs. Individual:** Groups comprised of 4 or more people in an audience or gathering will be coded as a unit. Any distinct individual in a photo (in focus, at the forefront) should be coded as an individual. When a composite photo is encountered, code the individuals who have been spliced together. Do not code as a group.
- **Gender:** Male, female, or unknown. Assumptions are made based on physical characteristics. If gender identity is obscured by costume, uniform, or the person is too small or blurry in the photo to make a judgement, the person should be coded as 0.
- **LGBT:** If the caption, headline, or photo indicates the person or group's sexual identity, this variable should be coded as positive.
- **Female stereotypes:** For questions about female stereotypes, code based on the role(s) the woman or girl is playing in the photo and the information in the caption or headline; not other knowledge or opinions you may have about the individual outside the context of the photo. A person may be coded as both

stereotypical, counter-stereotypical, and/ or a leader in the same instance. This will happen frequently with certain women.

- For example, Michelle Obama would be coded as Stereotype - Wife/ Girlfriend if standing next to her husband while he gives a speech because she is playing the role of wife. She would also be coded as Leader - Politics because she is playing the politically important role of First Lady, but she would NOT be coded as counter-stereotypical because First Lady is a role delegated only to women.
- If, in a different photo, Michelle Obama is at the podium speaking to a crowd about her efforts against childhood obesity, then she would be coded as a leader - a politician and NOT a Stereotype NOR a counter-stereotype.
- If Michelle Obama is shown as a lawyer in a courtroom, she would be coded as counter-stereotypical - law and leader - law.
- Women should be coded as Wife/ Girlfriend whenever they appear with their husband/ boyfriend, even if their children are present. A woman is only coded as mother if she is interacting with her children without the presence of her male counterpart.
- Grandmothers should be coded as Mother/ Caregiver.
- If the coder comes across another stereotypical role that is not listed, they may write it in the Other category.
- If the caption or headline describes the woman in a stereotypical role (e.g. “the mother of” or the “girlfriend of”) she should be coded as the corresponding stereotype.
- It is possible for a female to appear in stereotypical, counter-stereotypical, and/ or leadership roles all at the same time. In such a scenario, she should be coded accordingly in all categories. For example, a photo of Lolo Jones jumping over a hurdle in tiny shorts and a sports bra would be stereotypical as sexual/ physical (1), counter-stereotypical as an athlete (11), and a leader as an athlete (7). The proper combination should be coded based on the context of the photo, headline, and caption.
- Sexual object/ focus on physical appearance/ covered refers to instances in which the physical attributes/ appearance are the focus of the photo, caption, and headline.
 - Example: a photo of a model strutting the runway or a woman applying cosmetics.
 - Women in burkas or other types of coverings meant to hide the face and/ or diminish the role of females in society are also to be coded in this category, as their physical attributes are the reason for the coverings.

- A woman with noticeable cleavage or about 50%+ of her skin showing (strapless gowns, swimsuits, etc) should be coded in this category, such as a starlet on the red carpet.
 - Victim is defined as a missing person, a victim of assault, a person who has murdered, or a person in unfortunate circumstances, such as a starving girl in the third world.
- **Non-stereotypical roles:** These roles are generally defined as a group or individual that takes on a role traditionally assigned to the opposite sex. Because we are focusing women, many of these roles are leadership positions traditionally ascribed to men, and thus there is some crossover with the following variables. Roles commonly ascribed to men that do not fall under leadership, such as criminal or physical laborer, are also included in this category.
- **Leadership roles:** Leaders have attained notoriety in their field of work, or are the head of a political or activist organization. Leaders are often defined by their profession. These individuals may hold influence in society on a small (community) or large (national/ international) scale. Some examples include famous actors, musicians, heads of state, CEOs, doctors, collegiate and national athletes, and so on.
 - Often leaders will go unnamed and untitled in headlines and captions if they hold a certain level of notoriety. Editors assume that the public knows the name and position of these people due to their fame or infamy. If the coder recognizes a leader but the leader is unnamed/ untitled in the caption/ headline, they should STILL code the person as a leader and code their appropriate role. If the coder know's the leader's name, they should write it in the Name variable as well.
- **Types of leaders:** This category provides more specificity about the leadership categories than an individual fits into as they are portrayed in the photo. The caption and headline may be used to determine the proper code.
 - Sometimes, a person or group will be described as a “political leader” or “pioneer of the arts” without their profession being entirely clear. The person or group may still be coded as a leader in the closest corresponding category, and the spaces for Profession and Name may be left blank.
- **Profession:** Those with a known profession, such as doctor, can be filled in here to show how a person's actual career may differ or align with the role they portray in the photo. Those with an unknown profession may be left blank, and those who are unemployed should be describe as such.
 - Certain professions, such as doctor, may be difficult to ascertain because hospital workers and nurses often also wear scrubs. A person must be wearing a lab coat or described as a doctor/ physician in the caption/ headline to be coded as a Medical leader. All others performing medical

activities will be assumed to be nurses or other lower-level workers and, if female, should be coded as Stereotype (4).

- **Name:** The name of the person being coded should be noted in V9a if they are a celebrity, elected official, CEO or other executive, a professional athlete, the head of state of any country, a famous criminal, or a person of great notoriety in their field (such as J.K. Rowling, the author of the Harry Potter series). If their name is not provided in the accompanying photo caption or excerpt but the coder recognizes the person, they may still write in their name. If the person does not meet the criteria listed above but are named, it should still be left blank.
- **Political affiliation:** If the person or group being coded is a U.S. politician, candidate or activist group (Tea Partiers), their status as conservative or liberal should be coded here. All other individuals and groups may be coded as 0 for unknown. If a U.S. politician is shown in the photo but their affiliation is not listed, it may be researched. For no other category should outside information be researched to make a coding judgement. This is to make controlling for partisanship more precise, as some individuals obviously belong to a certain party (Barack Obama - Democrat) but this will almost never be listed.
- **Race:** Each person in a photo will be categorized by race (when possible) to see how other demographics fare in news photos. The photo's caption/ headline can be used to determine an individual or group's race. No outside knowledge is to be used to determine race except for what is provided in the caption, the physical attributes of the person in the photo, and the article excerpt (when available). For example, President Obama should always be coded as black, not mixed race, unless his mixed ethnicity is explicitly stated in the caption or excerpt. When unsure about a person's ethnicity, or their ethnicity is obscured because they are too small or blurry in the photo to make a judgement, they should be coded as unknown (0).
 - A person's geography can often indicate race. For example, a photo of people in Syria should be coded as (9) and a photo of a villager in Afghanistan should be coded as (10).
- **Tone:** Tone refers to the subject matter and context of the photo. It should be based on the photo, caption, and headline only. Sometimes the tone of the photo may contradict the topic of the headline and caption. In this case, the dominant tone should be coded.
 - For example: If the photo is of person smiling, but the headline or caption explains that they are a serial killer etc, then the tone is negative.
 - If a person is scowling in a photo, but the headline explains that they have won the Nobel Prize, the photo should be coded as positive.
 - If the photo shows a politician and the caption/ headline describe both positives and negatives of the individual, tone is 0 because the positive

and negative cancel each other out. If tone is unclear, it should also be coded as neutral.

- *Negative*: If the individual or group appears stupid, violent, evil, the subject of scrutiny, or is criticized in the caption or headline, then the tone is negative.
 - A person may also be coded as negative if the photo/ caption/ headline is portraying a failure of that person or mocking them.
 - Sometimes quotation marks used in the headline or caption can indicate mocking. For example, take a headline reading: Obama's "changes" from the first 4 years. This is mocking the idea that the president has inspired change, and would thus be negative.
 - Anytime someone is being made fun of or made to look ridiculous (such as choosing a very unflattering photo), they should be coded as negative -- unless the caption/ headline describes them in an overwhelmingly positive way, such as a war hero or Civil Rights activist.
 - Any time a person is associated with a crime or other problem in which they hold some or all fault, they should be coded as negative.
- *Positive*: If the individual or group appears accomplished (such as receiving an award), kind, sympathetic, attractive, or any other desirable quality, then the tone is positive.
 - Sympathetic portrayals often occurs within photos including a victim, a parent or spouse of a person who has died, or a person who has endured suffering of another kind.
 - Physical expressions like smiling and handshakes may also be coded as positive, as long as they are not contradicted by the caption or headline (like the case of the smiling serial killer).
 - Obituary photos or other photos in memoriam will usually be coded as positive because they are sympathetic remembrances. If the caption/ headline describes the deceased as a difficult or unsavory person, though, it may be coded as negative instead.
 - A person experiencing a happy moment, such as getting married, should be coded as positive (unless overwhelmingly contradicted by the headline caption - e.g. the couple committed identity theft).
- *Neutral*: Tone may often be difficult to discern, in which case it should be coded as neutral. Sometimes, tone will also be canceled out by both negative and positive attributes, in which it should also be recorded as neutral. For example, a group of Egyptian protesters waving flags would be neutral (unless violence is portrayed) because they are trying to reform

a corrupt government (positive) but are part of a potentially dangerous mob (negative).

- When violence or aggression appears in the photo, such as yelling and waving blunt objects or holding weapons (except for military), the photo is Negative.
- Another neutral example is of a picture of a reformed crack dealer. He is still being portrayed as a criminal (negative) but has made positive steps in his life. Tone should also be recorded as neutral when the person or people in the photo are not referenced in a distinguishable way, such as a person walking down the street with a neutral expression on their face.

Appendix C.

Intercoder Reliability

Attaining intercoder reliability proved to be a particular challenge in this study due to the large number of variables, 23, and the highly subjective nature of the content (photos, along with their captions and headlines). Tone was particularly difficult (70.8% raw agreement and 51.5% after Scott's Pi), as captions and headlines sometimes contradicted photos by portraying, for example, a smiling man with a headline such as, "Mass-murder apprehended by police." Also, it can at times be difficult to tell if tone is mocking or literal, such as the below instance, where Joe Biden is depicted in a political photo-shoot at Costco, captioned "Joe Biden's Costco Adventure." I would code this as negative because the tone of the caption seems to be mocking Biden, and because the staging of the scene looks so contrived. Someone else may code this as positive, since he is smiling in the photo and the word "adventure" has positive connotations. In this study, one coder was more likely to code neutral than positive or negative in such scenarios of indecision. I still believe the tone results are useful, but acknowledge that even greater specificity in my definitions would have been beneficial to this portion of the study.

Fig. 2 Coding Example: Joe Biden



Another challenge -- perhaps the most influential in my intercoder reliability results -- was the necessity of both coders to code all cases in the exact same order.¹⁴ This was mostly solved by numbering each person or group that appeared, but it appears that occasional incorrect order still occurred, which caused two cases of disagreement for multiple variables in each instance. Altering coder data would have been necessary to correct this issue, so this error is present in the intercoder reliability results shown here. I am not entirely sure of the number of times this occurred, as the content is subjective and what may appear out of order could theoretically be a coder's perception, but I estimate about 10 occurrences, resulting in up to 20 extra disagreements in some variables. The variable of group vs. individual works as a baseline for this estimate because the cases that were to be coded as groups were explicitly tagged as "group" in each photo. One might assume that many of these disagreements were due to incorrect order of coding.

¹⁴ Samples used for intercoder reliability were be marked with numbers to ensure that photos are coded in the same order. This means that there is no intercoder reliability as to which individuals and groups are included, but this researcher did her best to include all discernable people. Groups were also marked alongside identification numbers as needed to avoid confusion over whether a person or group of people are being identified for coding.

Scott's Pi was especially poor in variables with a low-instance, high-disagreement discrepancy, such as LGBT. Race was another variable with less than desirable reliability (68.8% raw agreement and 53.4% after Scott's Pi), but with an easily isolated explanation. There were about 40 instances in which my second coder selected "white" when I selected "unknown." This implies that one coder was more likely to make an inference than the other -- another indicator that more specificity was needed in the definitions of my coding scheme. I still believe the race results are valuable as well, since my full dataset errs on the side of "unknown" rather than "white" when race is not immediately clear.

The reliability of the remaining variables is detailed in Table 7. The variables that included time and date stamps or were entirely write-in were excluded from the intercoder reliability analysis, as they were simply for identification purposes and extra details about the specific individuals (name, profession) who appear the most. It also should be noted that there was no measurement of intercoder reliability as to who should be coded (e.g. one coder might miss an individual who appears in the background, while another includes it as a case). Because I had to number and order the cases (individuals and groups) to ensure that each case was coded in the same order, or at least as close as possible to the same order, I could not have my second coder making judgments about who to code and who not to code. To the best of my ability, I included every distinguishable individual and group from all of the photos in this study.

There is definite room for improvement in my overall intercoder reliability, but had all cases been coded in the exact same order, these results would have no doubt been somewhat better. The reader can thus assume that actual reliability falls somewhere

between the raw % agreement and Scott's Pi for the variables with large discrepancies. In future studies, a more precise coding and organizational system could avoid these issues.

	% Agreement	Scott's Pi	N Agreements	N Disagreements	N Cases	N Decisions
Variable 1 - Publication	100.0	100.00%	288	0	288	576
Variable 3 - Print v. Digital	100.0	100.00%	288	0	288	576
Variable 3A Prominence on page	94.1	90.30%	271	17	288	576
Variable 3B Prominence in Photo	93.1	61.70%	268	20	288	576
Variable 4 Number of people	91.3	86.60%	263	25	288	576
Variable 4A Group or Indiv.	91.7	47.70%	264	24	288	576
Variable 5 Gender	88.2	75.50%	254	34	288	576
Variable 5A Adult v. Child	96.9	58.00%	279	9	288	576
Variable 5B LGBT	99.0	39.50%	285	3	288	576
Variable 6 Stereotype	93.4	52.20%	269	19	288	576
Variable 6A Stereotype Roles	92.7	48.60%	267	21	288	576
Variable 6B Counter-stereotype	99.0	86.40%	285	3	288	576
Variable 6C Counter-stereotypical roles	98.6	79.50%	284	4	288	576
Variable 7 Leader	79.5	59.60%	229	59	288	576
Variable 8 Leader type	78.8	67.10%	227	61	288	576
Variable 9B Political Affl.	93.1	67.90%	268	20	288	576
Variable 10 - Race	68.8	53.40%	198	90	288	576
Variable 11 - Tone	70.8	51.50%	204	84	288	576