# Gender Bias In The Technical Disciplines 

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# GENDER BIAS IN THE TECHNICAL DISCIPLINES 

by

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A thesis submitted in partial fulfillment of the requirements<br>for the degree of Master of Arts<br>in the Department of English<br>in the College of Arts and Humanities at the University of Central Florida<br>Orlando, Florida

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#### Abstract

This study investigates how women are affected by gender bias in the workplace. Despite the increasing numbers of women in the workforce, women are still under-represented and under-valued in workplaces, which, in part, is due to their gender stereotype. This study demonstrates how gender bias in the workplace has been proven to limit women in their careers and potential in their occupational roles.

The media's negative depiction of women in their gender stereotype reinforces and perpetuates this image as a cultural norm in society. Women both conform and are judged and evaluated according to their weak and submissive gender stereotype.

Women face challenges and problems in the workplace when they are evaluated and appraised by their female gender stereotype. Women have been prevented from acquiring jobs and positions, have been denied promotions and advancements, failed to be perceived as desiring of and capable of leadership or management positions, as well as typically receive lower paid than their male counterparts. Furthermore, women's unique, indirect, and congenial conversational methods are perceived as unconfident, incompetent, and thus, incapable in the masculine organizational culture of most workplaces.

Through the investigation of gender bias in the workplace, professionals and employers will gain an awareness of how gender bias and socially-prescribed gender roles can affect the workplace and interfere with women's success in their career. Technical communicators and other educators will have a better understanding of how to overcome gender stereotyping and be encouraged to teach students on how to be gender-neutral in their communications in the workplace, perhaps striving for a more egalitarian society.


I dedicate this thesis to my mother, Gloria Campbell. I would not be the person I am today without her. She has stood by my side in all my endeavors, offering gentle guidance and loving support.

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## CHAPTER 1: DEFINING GENDER BIAS

The scholarship of gender bias in the workplace is significant because of the negative impacts that may occur for women in their careers and when striving to reach their full potential. As in many other disciplines, women in the field of technical communication struggle against gender bias, even more so, one might argue, in a field that has typically been regarded as a male's profession. Women have been denied promotions and career roles due to the negative evaluations that they have received due to gender bias and sexist attitudes. Gender bias is a socially-prescribed problem that stems from the media reproducing and reinforcing the traditional gender stereotype that renders women incapable of typical male positions and roles.

Research on gender bias in the workplace exposes how women have been denigrated by their gender stereotype. Women have not been treated as equals when compared to men in the workforce and have been denied employment, advancements, opportunities, as well as compensation. I question how women feel about the future of the fields of science, technology, and engineering, typical masculine occupations, and whether these fields will remain a masculine organizational culture or whether they can be accepting of women and their unique skills, talents, and different communication strategies. In addition, I reveal society's underlying gender bias against women in the hopes that people can begin to eliminate their gender bias against women when evaluating, judging, and valuing women's employment status.

Katherine Durack explains that there has been a general perception that women are not significant originators of technical, scientific, or medical achievement, and that women's work is not sufficiently important to warrant study of their supporting texts (37); thus, women are largely absent from the recorded disciplinary past. Because women are entering the workforce in
increasing numbers, gender bias becomes a significant issue to study in order to create an awareness of its impeding impact on society. Jo Allen regards gender issues to be worthy of study because of women's growing contributions in contemporary life. Allen argues that scholars fear being sexist and uncovering uncomfortable issues regarding gender differences in communication, which has encouraged research on gender issues in communication to be largely ignored. Allen states, "We have failed to study our own industry for the effects of a more diverse work group, one composed of more women than in previous decades" (372). The limiting affects that gender bias has on women in the workplace is in great need of research for individuals to become aware of their own gender bias and sexist attitudes and how these affect their judgment and evaluations of others.

While many scholars seek to provide operational definitions of masculinity and femininity by offering different characteristics and behaviors men and women are assumed to possess. There is a general consensus regarding the gender stereotyped roles men and women are categorized in, such as men expressing confidence, independence, and aggressiveness, and women are categorized as being more expressive, aware of others' feelings, and submissive. Masculine traits are valued more highly in society, and correspondingly, in the workplace, while feminine traits are perceived as negative and subordinate. It should be noted, however, that masculine and feminine personas are much more complicated and complex than minimizing masculinity and femininity into categories of gender stereotypical traits and characteristics. Each individual's idea of his or her own gender identity is an integration of several factors including: biology, natural tendencies, cultural beliefs and expectations, as well as personal experiences and familial nurturing. In addition, gender does not form the core of one's identity_individuals have
other factors that determine their personalities. There are several words that our culture uses to describe what it means to be masculine and feminine, but both men and women can express traits opposite his or her gender. By operationally defining gender roles, our culture teaches men and women to behave in ways opposite of one another.

Eun-Ju Lee describes how stereotypes offer an avenue through which efficient, if not normatively correct, information processing can occur, in "Categorical Person Perception in Computer-Mediated Communication: Effects of Character Representation and Knowledge Bias on Sex Inference and Informational Social Influence" (309). Essentially, people believe what they see in the media to be a reflection of reality. The gender stereotypes perpetuated and promoted in the media serve as information short-cuts in which people use to make evaluations and judgments regarding one's character, capabilities, and attributes. Women's traditional negative gender stereotype encourages people to perceive women unfavorably. Wayne Wanta and Dawn Legett suggest that negative portrayals may serve to denigrate individuals and groups in the eyes of audiences and to encourage gender stereotyping by reinforcing distorted images through the messages they transmit (105). Women have been socialized to accept their limited status and restricted gender role. Stereotypes offer generalizations about people on the basis of their group membership while simultaneously reinforce power relations of the dominant group. The male gender has traditionally been perceived as the dominant gender, as Martha M. Lauzen, David M. Dozier, and Nora Horan explain, "Traditional gender stereotypes posit that men represent the ideal or norm against which women are judged" (200). Gender stereotyping in the media also has a self-perpetuating effect on people. The media present gender stereotypes with specific personality traits and appropriate attitudes and behaviors restricted to males and females.

The reader, listener, or viewer responds to these portrayals with unhindered belief and simultaneously expect them. As a consequence, individuals adopt an identity that conforms to these gender stereotypes; thus, these stereotypical images become even more prominent in the media. The circularity of the self-perpetuating effect is how gender stereotypes become sociallyprescribed, perpetuated, and promoted in the media. For centuries, gender bias in the media has functioned to continue the reproduction and reinforcement of the gender stereotypes that has fueled the negative depiction of women that affects women's careers today.

People believe the information transmitted by the media reflects true reality. The media become a source of information in which people believe reflects reality. Individuals become socialized based on the behaviors, attributes, and social roles the media depict males and females in. The media serve to promote and disseminate the socially-prescribed gender roles that males and females are perceived to occupy. Individuals learn what is gender-appropriate based on what they see in the media, thus, when becoming socialized and acquiring their own identity, individuals reflect their gender stereotypical roles and behaviors. Ann Weatheral illustrates how children learn gender appropriate categories and express them when interacting in a conversation about which doll would be the train driver. Weatheral states that children's interactions may be especially interesting for studying gender categories because they are striving to become identified as competent members (776). Weatheral's study reveals that children place the boy dolls as being the train driver, thereby revealing that the children have been socialized to know gender identity categories and the category-bound activities associated with them. Males, as the dominate gender, have been associated with being a train driver, an accepted, gender-appropriate occupation for their gender.

Gender bias is the unfair treatment or discrimination of one based on one’s gender. Gender bias has stigmatized women with a negative, denigrating, and depowering gender stereotype. Gender bias in the media has encouraged negative evaluations of women and has hindered them from having successful careers, as well as having a marginal voice in government. Dan Jones agrees that gender bias is perhaps the most accurate term to reflect the whole range of stereotypes and other kinds of sexism in society, including sexist language (218). Few today would question the fact that both our culture and our language are biased against women (Jones 218). As a form of communication, the media reflects a traditionally male-oriented view of the world, which reinforces the low-status of women in society. Stacy L. Smith et al. agree that exposure to such distorted "reel" world images may have detrimental effects on youth’s genderrole socialization (774).

Jones discusses three gender stereotypes that Alleen Nilsen developed, all which serve to denigrate women and promote a negative perception of their capabilities, competence, and power: Women are sexy, whereas men are successful; women are passive, whereas men are active; and women are connected with negative connotations, whereas men are connected with positive connotations (220). The scholarship of gender bias is of significant value due to the detrimental impact it has on women.

Although women have become a growing population in the workforce and have made several advancements in their careers over the last centuries, in this study, I explore how women are still restrained to their gender stereotype and that this cultural problem is largely due to gender bias in the media. The representation of certain gender stereotypes in the media has become an orthodox action, perhaps an act that is not apparent, but nonetheless potent in the
messages that society receives. Negative connotations have been ascribed to women and have had detrimental impacts over others' interpretations and evaluations of them. Consequently, the negative attributes and characteristics ascribed to women have had devastating effects over the professions they can acquire and how successful they can become in their career. Children receive the message of women's denigrated gender stereotypes early in their socialization, when they are forming their identity, and are socialized into accepting and believing the false images and misrepresentations that the media promotes. Our sense of identity is so deeply rooted in our culture that traditional gender stereotypes continue to govern people's perception of reality and influence people's judgments of others and presumed acceptable attitudes and behaviors of men and women. The media, and consequently, our society has still not accepted women as equals to men and capable of the careers and positions that are stereotypically restricted to men.

What follows is a discussion of how gender bias in the media is still mainstream in the late twentieth and early twenty-first centuries and has negative effects on women in their potential and careers, predominantly in the field of technical communication, where women are largely absent from the history of. In Chapter Two, I identify key media forms that employ gender stereotyping. I analyze past literature that demonstrate gender stereotyping in the media. Different media genres are analyzed including: television commercials, television shows, children's video games, advertisements, computer clip-art, sports journalism, and newspaper articles. For instance, Lauzen, Dozier, and Horan analyze how the recent 2005-2006 seasons of popular television shows on primetime television employ gender stereotyping from the portrayal of the characters' interpersonal and work roles. Lauzen, Dozier, and Horan find that within the 128 television programs on six broadcast networks that they examine, more female characters in
inhibit gender stereotypical roles involved with romance, family, and friends than their male counterparts.

Chapter Three is a discussion of how women have been affected by gender bias in their work environment. This chapter focuses on how women negotiate their own capabilities in their career and whether employers are willing to accept women's unique characteristics or whether women must conform to a masculine approach to work-related communication and management strategies. For instance, Jane Jorgenson’s, "Engineering Selves: Negotiating Gender and Identity in Technical Work," shows how women have to negotiate their power and voice in the typical male-dominated professional workplace. Furthermore, men and women have been researched to use different communication strategies, as well. A look at how men and women differ in their management strategies in the workplace, and if these diverse management strategies are perceived as successful or not, is also analyzed. Women's overall attitude toward their career is discussed as well. Karenza Moore et al. find that despite the increasing number of women entering the information and communications technology (ICT) field, women in the field still feel the social construction of the field will remain masculine. Moore et al. discuss how traditional gender bias posits that the ICT field is a man's line of work that prevents women from entering.

Chapter Four continues the discussing of how women have been affected by gender bias in the professional work environment and workforce. Past literature has provided evidence that women are negatively evaluated when their job applications communicate agentic qualities rather than their gender stereotypical feminine and communal characteristics ascribed to women. James M. Tyler and Jennifer Dane McCullough’s article, "Violating Prescriptive Stereotypes on

Job Resumes: A Self-Presentational Perspective," proves that women are judged negatively on hiring-related judgments, which may consequently result in them not being hired for jobs. Chapter Three concludes with a discussion of women's salaries and positions in comparison to their male counterparts.

Lastly, Chapter Five concludes my thesis with a summary of key points of my discussion and recommendations for future research opportunities. I conclude with a remedy of how society may begin to eliminate their employment of gender bias when making judgments and evaluations; for instance, teachers have a responsibility to educate their students on how to be gender-neutral in their communications with one another. Dean G. Hall and Bonnie A. Nelson demonstrate that sex-biased language still exists in professional communication in the workplace, in their article, "Sex-Biased Language and the Technical-Writing Teacher's Responsibility." For example, letters are addressed to, "Gentleman," and the use of words such as, "draftsman," "workman," and, "manhours," are used quite a bit (Hall and Nelson 70). Sexbiased language can engender sexist attitudes, thereby maintaining the male-dominated workplace. Given the continued presence of sexist language and its negative effects, technical writing teachers do have some responsibility to alert students to this language as they prepare students to enter the workplace (Hall and Nelson 72).

Through the investigation of gender bias in the workplace, professionals and employers will gain an awareness of how gender bias and socially-prescribed gender roles can affect the workplace and interfere with women's success in their careers. The media's exploitation of gender bias can have severe and devastating effects on women as they strive to gain acceptance in the male-dominated professional work environment. The negative depiction of women by the
media has influenced individuals' evaluations and judgments of women's unique characteristics and skills and deemed them incapable of male professions and positions. Women have historically been plagued with a negative gender stereotype that has been perpetuated and promoted in various communication contexts and still believed today. Women learn the appropriate behaviors and acceptable roles for their female gender from the gender stereotypical messages and portrayals they see in the media. Through the misrepresentations of women in the media, women accept and adopt their submissive role in society and may only strive for the occupations and positions in society that the female gender has been confined to. Durack agrees when explaining how women have been bound by their own reproductive responsibilities. Women have been denied typical male roles in the workforce and have typically been underpaid compared to their male counterparts. Through the investigation of gender bias in the workplace, technical communicators will have a better understanding of how to overcome gender stereotyping and be encouraged to teach students on how to be gender-neutral in their communications in the workplace.

The current role that women play in our society is in need of a change. Society must become aware of women's unique contributions and accept them as equals to men and capable of success. Furthermore, as a final point, the scholarship of gender bias might instigate new research ideas or new methods on how to reduce the media's exploitation of gender bias and recreate a new image for women in the twenty-first century. Individuals may become aware of how gender stereotyping has influenced their own evaluations and begin to critically assess new communication contexts with a more objective perspective. Society may begin to eliminate gender stereotyping in the media and in the professional workforce, as well as alter the
traditional gender roles and professions that segregate men and women into equal representation from both sexes. Although it is a farfetched goal to have society completely eliminate gender bias and the exploitation of gender stereotypes, knowledge of gender bias's impacts is the key to instigate social action.

## CHAPTER 2: GENDER STEREOTYPES ARE SOCIALLY PRESCRIBED AND REINFORCED THROUGH COMMUNICATION

Stereotypes offer generalizations "about people on the basis of their group membership’" (Donelson, 1999, p. 40), often maintaining and reinforcing the power of the in-group while subordinating members of out-groups (Fiske, Xu, Cuddy, \& Glick, 1999, in Lauzen, Dozier, and Horan 201). Traditional gender stereotypes posit that men represent the ideal or norm against which women are judged (in Lauzen, Dozier, and Horan 201). When multiple programs across the broadcast and cable spectrum repeat these gendered roles, they assume the air of truth and credibility (Merskin, 2006, in Lauzen, Dozier, and Horan 201).

This chapter discusses how gender stereotypes are both promoted and reinforced through communication. I discuss how children are socialized into their prescribed gender stereotypes by the messages they receive in the media. Additionally, I analyze different genres of communication and the media to demonstrate that gender stereotypes are a persistent and impeding message that gets communicated to audiences, listeners, and viewers. Gender bias and gender stereotypes are socially-prescribed, reproduced, and reinforced in social interactions. When people interact, communication occurs. Communication includes a variety of different genres and methods-language, gestures, written communication, and images. One great communication method in our society is the media, including television, advertisements, and computer-mediated technology.

Historically, women have been confined to domestic roles due to their reproductive capabilities. Durack points out that there are almost no cultures in which men are the primary caregivers (36). Women have been defined by their low-status, domestic role, and have been
positioned in a society dominated by men. Gender bias results from these stereotypical gender roles developed in our culture over time. Women have not even been considered capable of having a voice in government and have not held political positions until 1917, with Jeannette Rankin, a Republican from Montana, who became the first women ever elected to Congress when she entered the House of Representatives ("Politics First, American Women, At a Glance").

Because children are exposed to a variety of messages from the media and learn to identify themselves as members of various social categories, socially-prescribed gender roles can have drastic effects on women. The most basic social status may be related to gender because society maintains a different set of normative roles for women and men and requires of them different responsibilities and kinds of work.

## Socialization of Gender Stereotypes

The negative portrayals of women in different social interactions have served to promote and reinforce traditional gender stereotypes that restrict women to domestic roles and attribute them to several submissive and inadequate characteristics. Weatheral demonstrates how children are socialized into distinct identity roles based on how they perceive reality to be. The gender bias that is communicated to children as they grow instills in them a sense of the acceptable behaviors and roles society deems men and women to fulfill. Weatheral analyzes the pervasiveness of gender in talk-in-interaction between young males and females categorizing dolls at a train station into certain gender categories. When children place androgynous dolls into different roles in the setting of a train station, both male and female children specify and agree that the train driver is a boy. When the female participant, which Weatheral labels, HAL, wanted
to play the train driver, she stated, "I'm a boy; I'm a boy," to emphasize why it was acceptable for her neutrally dressed doll be the train driver (Weatheral 776). Weatheral explains, "HAL displays her understanding that train driving is an activity bound to being a boy, or that the categories boys and train drivers belong together, whereas girls and train drivers don't, by loudly asserting that she is a boy" (777).

Similar to Weatheral's demonstration that males and females are socialized into learning and accepting their various gender stereotypical roles and characteristics, Johannes W.J. Beentjes and Loes Janssen also prove that children's identities are influenced by the media's representations of gender stereotypes. Beentjes and Janssen argue that media users tend to internalize gender stereotypes used to advertise information and believe they reflect reality. Beentjes and Janssen posit that because children spend much time using the media, they are susceptible to the stereotypes portrayed and can influence how they perceive themselves and others. Beentjes and Janssen study children's perceptions of adults and children in gender stereotypical advertisements. It appears that the media's portrayal of men and women into specific gender stereotypical categories has a great influence over children's perception of reality. The finding that children generally find stereotypical pictures of men and women as more true to life than nonstereotypical pictures verifies that children are socialized into various gender stereotypical categories and roles based on what they see in the media. For example, both male and female children found pictures of a male as a repair person as depicting reality. One interesting contrast to Beentjes and Janssen's hypothesis is the finding that children prefer tough girls to sweet girls (76). Possibly, children find the characteristic 'toughness'’ so attractive that they are not affected by the frequent exposure to stereotypical portrayals of sweet girls (Beentjes
and Janssen 76). The authors explain that perhaps the growing number of available popular culture "tough" role models, such as Pippi Longstockings and Xena, enables children to disregard the gender stereotypical portrayal of girls as sweet. Overall, Beentjes and Janssen’s findings, as well as Weatheral's, prove that the socialization of children into adulthood his heavily influenced by the media's exploitation of gender stereotyping. Even at a young age, children demonstrate their perception of an accurate reality by assuming the sex-role stereotyped occupations and gender roles that men and women are expected to fill. Girls may mature to conform to their gender stereotype and only strive for typical feminine careers, such as secretaries and hairdressers. The type of career choices women make has implications in the fields of science and technology in order to reduce women's under-representation.

## Television Shows

The media has, no doubt, perpetuated and promoted gender stereotypes. Research shows that many forms of media reproduce and display gender stereotypes in the messages they communicate to their audience. The following literature review identifies specific media forms in which gender bias is blatantly apparent. The depictions of gender bias in the media support my theory that society is bombarded and inundated with gender bias and how the media's influence is an unviable influence on individuals' cognitive schemas. The discrepancies in the media's portrayal of men and women negate women's professional and leadership roles in society and compromise their influence as agent members of society.

The majority of our nation's citizens derive a large part of their entertainment from television, movies, and films. During the day, soap operas and talk-shows take up a large portion of the television broadcasts, and the evening hours are replete with sitcoms, dramas, and reality
television shows. The fact that parents have put more restrictions on their children's television viewing in the past years may be related to idea that television viewing impacts a child's identity socialization, attitudes, and behaviors. From 1998 to 2006, parental restriction of television viewing for children ages three to seventeen had increased from fifty-five percent to sixty-three percent, as Jane Lawler Dye and Tallese Johnson describe in, "A Child’s Day: 2006 (Selected Indicators of Child Well-Being)" (2). Dye and Johnson explain how parents have placed rules about the type of programs children can watch, the time of day, and the number of hours they can watch. Analogous to my theory that children are influenced by gender bias in the media, Dye and Johnson's text, from the United States Census Bureau, reports that previous studies have pointed to an association between children's television viewing habits and aggressive behavior, as well as links between television watching and eating disorders among girls and junk food consumption (2). This fact proves how children's behavior, emotions, and identities are shaped and influenced by the media.

One great contributor to the misrepresentations of women that society is bombarded with, almost inarguably, daily, is primetime television. Television sitcoms, soap operas, as well as cinema films and movies have blatantly reproduced and reinforced gender stereotypes and the corresponding characteristics and roles of males and females. Females have been portrayed in domestic and clerical occupations, as having familial obligations, and as having emotional and submissive personalities. Men, on the other hand, have been portrayed according to their gender stereotype: they hold professional and management occupations, they have financial responsibilities, and they have aggressive, dominant personalities. These gender stereotypes are
not an epidemic confined to the United States; in fact, other countries have been researched to have gender bias rampant in their television entertainment as well.

Gilbert Motsaathebe articulates how the popular African soap opera, Generations, display men and women in their gender stereotypical roles. The running themes in Generations encompass a wide range of issues including feminine values, abortion, homosexuality, rape, prostitution, child abuse, family violence, women in politics and business, illegal smuggling, workplace demographics and the pursuit by women of such worthy courses as fighting for animals’ rights (Motsaathebe 432). One can see that Generations seems to be a fairly progressive soap opera with various controversial themes and characters holding a variety of roles. Despite the fact that Generations appears to be surmounting typical binary oppositions in a compromising, impartial manner, Motsaathebe detects several areas in which Generations exploit gender stereotyping. Motsaathebe agrees that gender bias in television shows contributes to individuals' perception of reality and acceptable roles and behaviors of each gender.

Motsaathebe maintains that gender stereotyping and misrepresentation in the media warrants attention because people tend to imitate what they see in the media without questioning it and this reinforces certain stereotypes, including gender stereotyping (433).

The media provide a depiction of behavior that is prescribed for men and women that is imitated and adopted by those that view the media. Motsaathebe analyzes the gender stereotyping in the popular African soap opera, Generations. According to sixty-nine percent of Motsaathebe's participants in a survey regarding the perception of gender in Generations, the soap opera did perpetuate gender stereotypes (443). This fact was indicated by respondents' views on women still being exclusively portrayed as receptionists and secretaries to male bosses
(Motsaathebe 443). The research results show that females scored far lower on positive personality traits compared to their male counterparts indicating that certain stereotypes relating to the image of women appear to be denigrated and compromised (Motsaathebe 444). The typical gender stereotypes found in Generations denigrate women and ascribe to them negative attributes. Women characters were portrayed as having such attributes as greed, jealousy, weak emotions, immaturity, arrogance and selfishness compared to their male counterparts (Motsaathebe 444). Even though Generations portrays women as having more dominant roles traditionally restricted for men, the behavior patterns that they are made to display in these roles still undermines their dominance in society—deeming them submissive and in need of men's support. For example, one storyline involves a woman collapsing during a minor crisis and ending up being dependent on a male character (Motsaathebe 445). Generations failed to improve the status of women based on the behavior patterns that they displayed (Motsaathebe 445). Despite women being portrayed in more roles outside the home, they are still constantly being "saved" by their male colleagues. The display of women being unable to hold their own in dominant male positions perpetuates their negative gender stereotype and compromises their place in society.

To validate further that gender stereotyping does occur in popular media television shows, Motsaathebe reveals that many actresses left Generations due to the unequal character portrayals. Motsaathebe recounts, "One of Generations’ top actors, Sello Maake ka Ncubeknown to viewers as Archie Moroka-complained on the Felicia Show (television talk show program hosted by Felicia Mabusa-Suttle) that often characters had to play parts that they felt were either stereotypical or unrealistic" (446). Motsaathebe's findings prove that television plots
symbolically denigrate women. Regardless of women being portrayed in leading roles, outside of the home, they are surrounded and continuously rescued by male colleagues. Motsaathebe concludes that the soap opera, Generations, fails to improve the status of women due, in part, by the behavior patterns they were made to display (445). Motsaathebe's study illustrates how the popular media form, which reaches a large audience, clearly displays women according to their negative gender stereotype. When individuals view television shows, like Generations, it can have severe limiting affects over women and their socialization. Women may be instilled with the behaviors and characteristics that their female gender stereotype deems appropriate and acceptable, thereby having drastic consequences over their potential and career. Motsaathebe agrees that much incidental learning takes place when such programs are viewed (446). Soap operas (and other television forms) stimulate and inspire viewers through the real life situations that are portrayed (Motsaathebe 446).

Other authors confirm Motsaathebe's conclusion regarding the gender stereotyping in popular television shows. Lauzen, Dozier, and Horan illustrate gender stereotyping in primetime television programs by examining the enactment of interpersonal and work roles portrayed by the characters. Lauzen, Dozier, and Horan argue from the social role perspective which maintains that gender stereotyping includes distributing of men and women into separate interpersonal and work roles. Traditional gender stereotypes posit that men represent the ideal or norm against which women are judged (Lauzen, Dozier, and Horan 201). Men have been ascribed agentic qualities manifested by self-assertion, self-expansion, and the urge to master. Women's communal qualities include selflessness, concern for others and relationships, and submissiveness. Women's communal qualities constrain them to domestic and low-status
positions in comparison to men. Lauzen, Dozier, and Horan claim that knowledge of an individual's social role can profoundly influence gender stereotypes regarding that individual (201). The presentation of the traditional social roles assigned to male and female characters in primetime television programs contributes to the construction and maintenance of gender stereotypes. The observation of men and women in their traditional roles constrained by their gender stereotype reinforces this perspective in the eyes and minds of viewers. Traditional portrayals of women thus serve the dual purpose of seeming '‘natural and normal,'" while simultaneously perpetuating the gender hegemony, thus having negative affects over women's socialization and future career.

During the 2005-2006 seasons, Lauzen, Dozier, and Horan find that within the 128 television programs on six broadcast networks they examined, more female characters enacted interpersonal roles centered on family, friends, and romance than male characters (208). Likewise, more male characters than female characters enacted work roles, such as professional occupations outside of the home. An interesting portion of Lauzen, Dozier, and Horan's research is the examination of the team of creators and writers of the roles of the characters. Lauzen, Dozier, and Horan find that in programs with mixed-sex teams, female characters enacted an average of 1.36 interpersonal roles (209). In contrast, programs with only male teams, female characters enacted an average of 1.05 interpersonal roles (Lauzen, Dozier, and Horan 209). Lauzen, Dozier, and Horan find that the opposite is true, as well: on programs with mixed-sex teams, male characters enacted an average of . 66 work roles; whereas on programs with all-male teams, male characters enacted an average of . 79 work roles (210). Lauzen, Dozier, and Horan's evidence similarly demonstrates what Motsaathebe also shows: gender stereotypes represented
and reinforced in the media serve to denigrate women by portraying them in low-status, domestic roles and as having submissive and negative attributes that deem them incapable of male positions.

Twenty-first century television continues to portray men and women according to their gender stereotypes. Women are depicted as being mothers and the caretakers of the household, while men are portrayed to be professionals with occupations in the business, science, technology, or engineering field. Female characters on television are submissive, emotional, and usually weaker than men, who are depicted to be strong, intelligent, and wealthy. For instance, two popular sitcoms on television today are The Middle and The Big Bang Theory. The Middle features the daily lives of a traditional American family. The father holds an occupation outside of the household and holds most of the financial responsibilities that support the family. While the mother does hold a position outside of the home, she is still responsible for taking care of the household chores and provides the meals for the family. The family knows the mother's role well when they constantly tell her she needs to go to the store to get food-a gender-marked task. The portrayal of the working mother demonstrates how women who choose to have occupations must also balance their familial responsibilities with their professional life. What's more, at work, the mother receives blatant gender discrimination when her boss tells her one day, "You forgot to make coffee again" (The Middle: Season 1). The woman responds, "How come I'm the one who is always asked to make the coffee? I'm beginning to think it's because I'm a woman" (The Middle: Season 1). The boss clearly perceives her only value is to perform domestic duties, those that women are only capable of, such as making coffee. The boss retorts to her, "Well, of course it's because you're a women. The day I start telling men to make coffee for women, you have my
permission to put a bullet in my head" (The Middle: Season 1). Rebecca L. Collins comments on significant themes in articles regarding gender roles in the media in, "Content Analysis Of Gender Roles In Media: Where Are We Now And Where Should We Go?." Collins explains how women in the media are typically shown in feminine, gender stereotypical roles: Women are portrayed as nonprofessionals, homemakers, wives or parents, and sexual gatekeepers (290). Collins's evidence supports the notion that The Middle portrays the mother in a traditional gender stereotypical role. While woman characters on television today might hold increasingly androgynous positions, as the mother does work outside the home, the depiction of a weak and submissive professional female increases the hegemony of the masculine organizational culture.

Additionally, each of the children in the family fit his and her gender-appropriate roles and characteristics. The eldest son excels in football; the middle daughter is portrayed as unintelligent and talentless, and lastly, the youngest son appears to be a genius. The characteristics and portrayals of the male and female characters in The Middle reinforce male's dominant, professional, wealthy gender stereotype and female’s denigrated, domesticated, submissive gender stereotype.

The Big Bang Theory, which first aired in 2007, and still a popular television show on today, highlights many typical gender stereotypes which serve to showcase men as intelligent and women as unintelligent and only capable of domestic positions. The main characters in The Big Bang Theory are four males and one female. The four males are all extremely intelligent individuals who all hold Ph.D.'s and Master's degrees. As expected, the males all hold positions in the fields of science, technology, and engineering. The female character is portrayed as a figure of sexual desire to one of the male characters. What's more, the television show draws
attention to the female's appearance, an expected and gender-appropriate trait for women to be beautiful and attractive. Collins describes what is clearly portrayed in The Big Bang Theory: Women are often sexualized-typically by showing them in scanty or provocative clothing (290).

In the pilot episode, the female moves into the apartment next to two of the male characters. When they invite her over to eat dinner, they find out that she is a waitress at a Cheesecake Factory, a low-status, low-paid, domestic position for a female, nonetheless, a gender-appropriate occupation that females are perceived to only be capable of. The female also breaks down in tears, expressing high emotionality—just as her female gender stereotype would have it. Collins finds similar evidence in her research of gender roles in the media. "Women are also subordinated in various ways, as indicated by their facial expressions, body positions, and other factors," states Collins (290). While one of the male characters finds her attractive and tries to pursue a relationship with her, the female uses her sexuality and attractiveness to get him to do a favor for her. Coincidently, the male comes to the rescue as the dominant gender that must save the weaker sex-females. One of the characters comments on why the male agreed to perform the favor, "You think with your penis" (The Big Band Theory: The Compete First Season); this comment objectifies women as sexual beings, reinforcing their reproductive capabilities and obligations.

Another episode of The Big Bang Theory titled, "The Hamburger Postulate," illustrates how women are bound by their negative female gender stereotype and assumed to be incapable and unqualified to perform masculine fields of work. When introduced to one of the male physicist's co-workers, a female scientist, the main female character states in astonishment,
"Wow, a girl scientist," as if this was an unordinary position for a woman. The remark demonstrates how society perceives it as absurd for women to be capable of man's occupational roles and positions.

While our society enters the early twenty-first century, and more women enter the workforce and occupy careers that have traditionally only been held by men, gender bias is still perpetuated and promoted in popular television shows. Television viewers are bombarded with messages that men are dominant and professional, and women are weak, submissive, and incapable of high status positions in the workforce. Consequently, the gender bias that individuals perceive in the media may influence their judgments and evaluations of gender appropriate roles, behaviors, and characteristics. The negative depictions of women in the media serve to perpetuate gender bias. Gender bias in the minds of employers and job hirers may hinder women from obtaining jobs, as well as advancements and promotions in the workplace.

## Films

Current research by Dawn England, Lara Descartes, and Melissa Collier-Meek support Motsaathebe and Lauzen, Dozier, and Horan's findings of gender stereotypical portrayals of characters in the media, specifically in children's Disney movies. England, Descartes, and Collier-Meek explain how the Disney Princess line was created, in 2001, as a marketing ploy targeting young girls, which aims to encourage children to personally identify with the characters in the Disney Princess movies. Just as Beentjes and Janssen warn about the influence the media has on the socialization process and identity formation of individuals, England, Descartes, and Collier-Meek emphasize how exposure to gendered material may influence children's gender role acquisition and expression (557). England, Descartes, and Collier-Meek say, "Consistently
portrayed gender role images may be interpreted as normal by children and become connected with their concepts of socially acceptable behavior and morality" (557). Despite parents’ ability to put restrictions on their children's television viewing, Smith et al. explain that a majority of children in this country have access to a variety of videos and/or DVDs in their homes and many are G-rated, which may be particularly gender biased (774). England, Descartes, and CollierMeek examine gender role portrays in both early and late Disney Princess films. The films spanned from 1937, with Snow White; to Beauty and the Beast and Aladdin, in 1991 and 1992; to a more recent film, The Princess and the Frog, in 2009. While several of the films that the authors analyze were first released several decades ago, both early and late Disney Princess films are similarly marketed and viewed by today's audiences and still remain a dominant source of social influence on children's gender concepts. Children's media viewing influences a child's socialization process and may have a direct affect on their cognitive schema and understanding of appropriate and socially accepted roles and behaviors.

Consistent with past research, Disney films have been shown to portray some stereotypical depictions of gender (England, Descartes, and Collier-Meek 556). The present study examines gender role portrayals in the Disney Princess movies and the gendered nature of climactic rescues (England, Descartes, and Collier-Meek 557). The characteristics of interest in this study include traditionally masculine (e.g., athletic, brave) and traditionally feminine (e.g., helpful, nurturing) characteristics exhibited by the prince and princess characters through their behaviors and actions (England, Descartes, and Collier-Meek 556). England, Descartes, and Collier-Meek find that the princes displayed 49.95\% traditionally masculine characteristics of their total characteristics, and the princesses displayed 65.32\% feminine characteristics of their
total characteristics (560). The gender stereotypical characteristics that the male and female characters display in the Disney films are many of the same that Motsaathebe find the male and female Generations' characters display, such as males being assertive, independent, brave, intellectual, and a leader. The female characters in the Disney films display similar feminine characteristics as the female characters in Generations: submissiveness, emotional, affectionate, nurturing, sensitivity, and helpfulness. In addition, resembling the female characters in Generations and The Big Bang Theory who were rescued by male characters, in the Disney films analyzed, the princess characters were rescued seventeen times and performed only thirteen rescues in the films, while the princes rescued thirteen times and were rescued thirteen times (England, Descartes, and Collier-Meek 560). That with said, the princes often performed the climactic rescue of the movie on their own, except in Pocahontas and Mulan, in which the princess was in a position of power during the final rescue (England, Descartes, and CollierMeek 560). The princesses in Pocahontas and Mulan incorporated more masculine characteristics than the earlier Disney films, and the most current film had the most androgynous princess (England, Descartes, and Collier-Meek 562).

While the increase in female characters displaying more masculine characteristics may reflect changing gender roles and expectations in society, the princesses' display of masculine characteristics only reflect how women today are expected to maintain their feminine characteristics while incorporating aspects of maleness if they are to succeed outside of the home. In addition, the female characters' display of androgynous characteristics was also depicted as troublesome and unordinary. England, Descartes, and Collier-Meek state that the princesses participated in stereotypically masculine activities, such as conducting diplomacy and
war, yet plot resolutions reflected traditionally valued outcomes for women, such as the princess being paired with the prince and choosing to return to family life rather than pursuing novel opportunities (563). Therefore, female characters in the media who display traditional masculine characteristics only serve to increase the salience of gender binaries and conflict with gender appropriate roles and behaviors. For instance, in, The Princess and the Frog, the princess was career-oriented, but this was presented as a worrisome trait, preserving society's caution of women's greater role in the workplace and how it may impede their role as the family caretaker. England, Descartes, and Collier-Meek conclude that the present study clearly demonstrates that there are both stereotypical and non-stereotypical gender role portrayals in the Disney Princess movies (565 \& 566). The princesses exhibited more feminine than masculine characteristics in all the films; however, the princesses demonstrated increasingly more masculine characteristics in the early, middle, and late movies, respectively (England, Descartes, and Collier-Meek 561 \& 562). Nonetheless, the gendered messages did not consistently move away from traditional themes in more recent movies (England, Descartes, and Collier-Meek 566). England, Descartes, and Collier-Meek's evidence clearly demonstrate gender bias is still prevalent in the media with most characters in television shows and films displaying typical masculine and feminine characteristics and gender stereotypical roles and behaviors. Despite the old age of some of the Disney films, they still are commonly viewed and popular among today's children, thereby, affect their socialization and identity process. Viewing depictions of gender roles contributes to a child's understanding of gender as they incorporate the gender stereotypes and ascribed roles and behaviors they the view in the media into their cognitive schemas. England, Descartes, and Collier-Meek agree, "Watching gendered content, such as that in the Disney Princess movies,
may influence a child's gender development" (566). Exposure to the media serves to perpetuate and reinforce gender bias and stereotypes in society.

Smith et al. expand on England, Descartes, and Collier-Meek's research by performing an examination of both animated and live-action G-rated films for gender-related portrayals. Analogous with other scholars, Smith et al. contend that seeing males and females on television or in film engaging in traditional actions or holding stereotypical occupations may inform young viewers about gender appropriate and inappropriate actions (775). Heavy viewing of such portrayals may function to perpetuate and reinforce children's comprehension of gender role schemas and skew children's attitudes, beliefs, and expectations about their own behaviors and occupational aspirations. Stereotypical messages found on television can have a negative impact on young viewers’ developing beliefs about gender.

Smith et al. investigate the gender stereotyping in 110 G-rated films theatrically released between 1990 and early 2005. The films are produced and distributed by twenty different companies (Smith et al. 776). In addition, Smith et al. also investigate whether portrayals of gender have changed over time. Out of a total of 3,039 single characters, 2,188 characters were male (72\%) and 851 were female (28\%) (Smith et al. 780). This means that for every 2.57 males depicted in G-rated films there was only one female portrayed (Smith et al. 780). Female characters are drastically under-represented as a central figure in children’s films. Smith et al. remark how the small proportion of females in these films is distressing for a number of reasons, including the fact that although women make up half the population, they take up very little space in movies for the general audience-the only movie rating many parents deem appropriate for their young children (783). When children fail to view an equal proportion of male and
female characters, it instills in them the idea that males are the dominant gender and increases the salience of gender binaries and discrepancies. Smith et al. also confirm that women are portrayed according to their domestic gender stereotype: Females (66.3\%) were significantly more likely to be depicted as a parent than were males (34.6\%) (780). The G-rated films depiction of more females as parents is consistent with the traditional female gender stereotype of being the caretaker of the household and bound by her reproductive duties. Additionally, more females than males were depicted as being married or in a committed relationship-perhaps instilling the idea in children that females must have a man to take care of her. Just as England, Descartes, and Collier-Meek describe how the princesses in the Disney films had to maintain their femininity while conforming to masculine characteristics in order to succeed outside the home, Smith et al. report similar evidence regarding female characters' occupational roles. It seemed that a larger number of female characters held counter-stereotypical jobs, while only $2.3 \%$ of male characters held traditionally feminine occupations (Smith et al. 782). This result illustrates that a sexual double standard for males and females is alive and well in G-rated content (Smith et al. 783).

Over the fifteen-year time frame of the films that were under examination, male characters continued to outnumber female characters. Smith et al. report, "Children viewing these films will see roughly 2.6 men for every one woman" (783). The lack of representation from women in the media effects the socialization of children as they begin to perceive women as insignificant and not valuable-both to be of substance for storytelling and, correspondingly, in the workforce. Smith et al. argue that such under-representation of females on screen can negatively impact both developing males and females. Girls’ perceptions of value and self-
esteem may be affected, and boys may be reinforced with a hegemonic view of girls and women. Similarly, Collins questions, "If young girls do not see themselves reflected in the media, will this diminish their sense of important and self-esteem?" (292). In addition, the underrepresentation of woman characters, as well as the finding that males were significantly more likely than female to work in the military belie real-world statistics. Smith et al. contend, "Despite the fact that women have been increasingly able to serve in the armed forces over the past fifteen years, representations of women in these positions is severely lacking" (783). What's even more discerning is that parents may regard G-rated films as safe viewing for their youngsters; however, psychologically, the films may be systematically encouraging children to see a world through a narrow perspective. Collins agrees that the disparity in portrayals of males and females has persisted over decades, during which the roles of women in society have broadly expanded (292). Smith et al. conclude that G-rated movies are plagued by issues of representation and tradition. Over exposure to the media's representations of gender stereotypes has serious consequences for children's information processing and schema development for gender. The relative absence of women in the media, coupled with their negative, denigrated female gender stereotypes presents a reality that is far from equal. Collins contends that the media-world is closer to the working-world reality of 1950 than to 2010 society (292).

Not only do children's films contain gender stereotyping, but today's adult films are still at fault for containing gender bias by portraying male and female characters in their gender stereotypical roles. In fact, one film recently released in theaters, February 24, 2012, is Tyler Perry's Good Deeds. The characters in, Tyler Perry's Good Deeds, are all depicted according to traditional gender stereotypes. The main male character is a wealthy business man, who is CEO
of a computer software company that his father began. Not only does this portrayal fit the male gender stereotype of holding a professional occupation, but also the nature of the company, being in computer software, fits the male gender stereotype of being more skilled at and more knowledgeable in the fields of science, technology, and engineering. The main female character is a single mother who has to work to support her child. The female holds a traditional gender stereotypical occupation; she is a "cleaning lady"-a clear domestic position for a female. Also, she had previously been pursuing a nursing degree-another gender appropriate and accepted occupation for a female. In addition, as several of the Disney princess films depict, the main female character in, Tyler Perry's Good Deeds, is rescued by the main male character after he supports her with money by giving her an apartment to stay in.

Other secondary male and female characters in the movie are depicted according to gender stereotypical roles. One male co-worker in the company even comments that he has to leave work because his wife is going out that night and, "I have to play, Daddy," he states, in a sarcastic tone, as if having to take on familial responsibilities is unordinary and even comical. Another female character comments to her fiancé that she does not want children. Her statement of, "Does that make me a bad person?" clearly shows her discomfort and anxiety about a worrisome trait for a woman. England, Descartes, and Collier-Meek describe this similar discomfort for women who contradict their female gender stereotypical roles and behaviors when regarding the princess in, The Princess and the Frog, being career-oriented. The movie's display of characters according to the tradition gender roles and accompanying characteristics and traits that are socially accepted demonstrates society's expectations for each gender and women's
place in the workforce. A close examination of Tyler Perry's Good Deeds illustrates how gender bias is still perpetuated and promoted in today’s cinematography.

## Video Games

Television shows, such as soap operas, communicate to society that women are weak and submissive, as their gender stereotype renders them to be. Similar evidence, established by Karen E. Dill and Kathryn P. Thill, validates that individuals’ socialization and gender identity formation is influenced by the portrayals and images they see in the media. Dill and Thill investigate the sexist portrayal of video game characters and young people's schemas about male and female characters (851). Dill and Thill's study is important because video games are a common element in children's popular culture and may impact how they perceive reality to be, thus influencing the attitudes and behaviors they think are appropriate for males and females. Video game characters have changed profoundly since the 1970's when they first appeared on the market (Dill and Thill 851). A gender bias in favor of males was already apparent with the first video games produced. Computerized voices were almost exclusively male; however, gender was represented quite unsophisticatedly with females being signified by a bow in the hair of the character, such as Ms. Pacman, or by damsels in distress. By the mid to late 1990's, however, gender stereotyping had become a blatant element in children's popular culture, including video games (Dill and Thill 851). Butt-kicking icons, such as Tomb Raider's, Lara Croft, stimulated debate over women's merits and place in society.

Dill and Thill analyze the sexist portrayals, aggressiveness, and stereotypical sex portrayals of the male and female characters in popular gaming magazines. Overall, Dill and Thill report that 59.9\% of female characters conformed to the sexualized, curvaceously thin
female portrayal and less than $1 \%$ of male characters were rated as being sexualized figures (857). Consistent with the male gender stereotype of being aggressive and dominating, more male characters were rated as being aggressive than female characters, and in terms of stereotypical sex role portrayals, Dill and Thill state, "Stereotypical images were common, with $33.1 \%$ of male characters rated as hypermasculine and $62.6 \%$ of females were considered visions of beauty (857). This data confirms that gender bias is prominent in the media and becomes socially-prescribed as it becomes more and more conventional. Individuals become socialized based on their cognitive schema of gender roles, thereby restraining themselves to their obligatory behaviors, characteristics, and roles. Dill and Thill agree, "Since video games are popular with youth, and since the popularity of video games is growing, it is important to understand them as an agent of socialization" (861). Furthermore, it is important to note that video game characters are an agent of gender socialization in youth popular culture, even for those who are not avid gamers (Dill and Thill 861). People receive information about video games from sources other than the video games themselves, such as magazines, advertisements, television shows, and Internet sites. Consequently, video games become a popular cultural medium that contributes largely to gender socialization and is a part of the cultural communication problem that ultimately becomes detrimental to women. Dill and Thill show how the media serves to disseminate the role of gender in society that stresses the importance of male aggression and dominance and female submission (862). Dill and Thill conclude, "This is particularly troubling, given that video game portrayals are targeted to a youthful audience who are actively developing social schemas, especially regarding gender" (861).

## Computer Interfaces

The media landscape is evolving at a startling pace, with a greater diversity in content, new types of media, and new platforms for delivering media constantly emerging (Collins 295). Janice Tovey argues that even computer interfaces and icons are sites of communication which serve to represent ideologies and cultural norms. She suggests, "The reality represented by the desktop or office metaphor privileges white-collar, corporate culture" (Tovey $64 \& 65$ ). Essentially, the visual nature of computer interfaces and electronic communication serve to reinforce cultural maps that guide and develop individuals’ cognitive schema. Tovey indicates that computer interfaces are sites within which the ideological material legacies of racism, sexism, and colonialism are continuously written and re-written (65). Because individuals rely mostly on visual elements as a means of obtaining information, the media has the potential to represent and reinforce gender ideologies which serve to set boundaries against certain groups. The negative portrayal of women in our visual culture has aided in the socially-prescribed gender stereotypes that are represented and reinforced in the media. As women adopt their gender stereotype, they also, coincidently, intensify the media's exploitation of gender bias. Gender bias has a circular nature - the more gender stereotypes become orthodox, the more women conform to these gender stereotypes, the more the media functions to perpetuate and promote gender stereotypes. It is clear that gender bias in the media has a severe affect over women's socialization.

## Advertising and Commercials

Another pervading media form that society faces every day is advertisements.
Commercials advertised on television and print advertisements have been found to exploit gender stereotyping, both in the images that they produce, as well as an assumption as to who
their audience will be—in striving to gear their rhetoric toward a specific audience. As evidenced by Alexandra Aronovsky and Adrian Furnham, marketers rely on the assumptions that arise from gender stereotyping that females, as mothers, are more likely to buy food than males. Constrained to their domestic role, bound by their reproductive responsibilities, females are perceived to be confined to their home, cleaning, preparing food, and taking care of the children. Advertising is the primary vehicle through which products are marketed to potentially wide consumer audiences (Aronovsky and Furnham 170). Marketers use conventional gender stereotypes as a basis for assuming their advertisement's audience, as well as the content they are promoting. The role portrayals in commercials are a depiction of social and cultural values, thus reinforcing and perpetuating the domestic and subservient roles that compromise the female gender stereotype. The media has a persuasive power over what people tend to believe, and one could argue advertisements are even more persuasive due to their rhetorical nature.

The advertising goal is to sell. Advertisements aim for adherence of the audience in their promotion of values, images, and concepts, including those of sexuality, romance, success, and even 'normality' (Aronovsky and Furnham 170). The concept of normal that advertisements promote powerfully reinforces and perpetuates typical gender stereotypes in which people come to believe. Because gender stereotypes have a powerful effect on ones’ judgment, as well as the speed at which they process information, advertisers are known to exploit gender stereotypes depending on what type of product they are promoting. Advertisers, along with other aspects of the media, are to blame for much of women's challenges in the workforce in being perceived as equals in capabilities and competence to men, as they continually exploit the female gender stereotype.

Aronovsky and Furnham insist that, although growing female representations extend the realm of the narrowly defined roles previously assigned to them, the superficiality of modern gender depictions has nonetheless continued in a great deal of advertising (171). Aronovsky and Furnham study how females are portrayed in food advertisements in comparison to men and whether they are stereotypically portrayed the same as in other advertisements for other products. In addition, the scholars also consider the importance of the audience in the way stereotypes are featured for chosen advertisements (174). Aronovsky and Furnham suggest that advertisers encourage stereotyping by making commercials to be of interest particularly to either male or female audiences (174). Based on the gender stereotype of the female housewife and caregiver, Aronovsky and Furnham predict that a more female audience would watch television during the day because females are the gender prescribed to be confined to the home. In addition, because of the large female audience, a female would be the salient central figure in the commercials airing during the day. Aronovsky and Furnham analyze forty hours of daytime and nighttime television for foodstuff commercial content, in November 2006. Results of Aronovsky and Furnham's analysis indicate that females are more frequently portrayed in dependent roles than males, while males were more frequently portrayed in independent/other roles (182). In fact, during the daytime, all male central figures were featured in independent or roles other than a dependent role, which corresponds to their dominant role in the household as the one with the career. Females were much more likely to be in independent roles than dependent ones in the daytime (Aronovsky and Furnham 182). In addition, especially during the day, females were more likely than males to be featured in the presence of children or other females. Aronovsky and Furnham conclude that, concurrent with other studies of advertisements, food products elicit
greater gender stereotypes: results confirm that a higher number of females are central figures, both during the day and at night (184). This keeps with the proposed feminization of foodstuff products (Aronovsky and Furnham 184). Females were found to be the central figure in 63.92\% of the daytime commercials analyzed and $63.10 \%$ of the evening commercials (Aronovsky and Furnham 184). In contrast, men were featured as the central figure in only $36.92 \%$ of the daytime commercials and $36.90 \%$ of the evening commercials (Aronovsky and Furnham 184).

Aronovsky and Furnham's study illustrates that gender stereotypes are pervasive and embedded in much of the social and cultural values that people use as cues to process information, but also in the formation of discourse. Thus, gender stereotypes are reinforced and perpetuated through this circular process. As people come to believe the sex-typed roles and characteristics that are ascribed to each gender that they see in the media, they incorporate it into their values and formation of their identity, thereby assuming their prescribed gender roles and behaviors. While content analysis gender studies of this sort may be criticized for overemphasizing the power of the media while subsequently underestimating the variety of ways in which people handle their experiences of stereotyping (Aronovsky and Furnham 186), it is clear that advertisements do use gender stereotypes as a basis for the content and their assumed audience. Given the persuasive nature of advertisements' rhetoric, coupled with the fact that gender stereotypes are salient in many media genres, I argue that the manifestation of gender stereotypes aids in maintaining the male-dominated society: "Certainly, it is possible that sexes may cultivate distorted internalized gender ideologies about appropriate social and professional roles, especially for women" (Aronovsky and Furnham 187). The submissive, domesticated
stereotypical image of women, promoted in the media, has serious implications for women as they strive to compete in the male-dominated professional workforce.

Women's gender stereotype constrains them to certain domestic and low-status positions. It is through the media's depiction of women in these roles that perpetuates and reinforces the accepted and appropriate occupations that women are to obtain when striving to become a member of the workforce. Despite more women entering the workforce in the late twentieth and early twenty-first centuries and occupying roles traditionally only held by men, women's gender stereotype still reinforces the idea that women are not capable of these positions. Women are socialized to adopt their appropriate gender stereotypical behaviors and may not strive to typical male occupations. With today's advancing technology, and as more positions open in the field of science and technology, it is important to forecast the idea that women are capable of entering the field. The media's depiction of women in specific occupations and careers has a great impact over encouraging, or worse, discouraging women from entering the science and technology field, as this has traditionally been perceived as only a man's work. The media's depiction of women may hinder women from entering typical masculine careers.

Similar to how Aronovsky and Furnham illustrate gender stereotyping in commercials and advertisements portraying women in their domesticated and caregiver role, Doris U. Bolliger exhibits similar evidence of women's negative gender stereotype in educational technology advertisements. Bolliger describes how women are under-represented in the information and technology field, both in the United States, as well as other countries. Computers and technology are a male-dominated culture; this fact is likely to have an influence on individuals' adoption and use of technology—hence affecting gender equity across the globe (Bolliger 46). Bolliger
explains that gender is a binary construct defined by society and cultural norms. Masculinity is associated with strength, power, aggressiveness, competence, and success; whereas femininity is associated with supportiveness, submissiveness, warmth, and nurturance (Bolliger 46). Women are perceived and depicted according to their gender stereotype, which consists of low-status careers and domesticated occupational roles. Bolliger agrees, "Due to the potential influence of images and perceived stereotypes in technology ads on individuals in the education sector, and a possible connection to levels of adoption and use of technology, this study focuses on ads published in the field of educational technology (47). Bolliger analyzes computer hardware and software advertisements in educational technology magazines, from June 2004 to May 2005. Bolliger's examination indicates that men were displayed in a more positive role than women (50). Remaining consistent with the social and cultural norms of being masculine and feminine, Bolliger illustrates how many of the males in the computer technology advertisements were portrayed as more powerful, successful, and professional than females (50). In contrast, women's degrading gender stereotype was depicted in many of the advertisements. Both men and women were often shown in traditional roles that reinforced perceived stereotypes (50).

I suggest that perceived gender stereotypes in advertisements, and by extension, commercials, influence the types of careers and occupations that men and women seek as they enter the workforce. Because computer literacy is an important skill for members of the workforce in today's economy, it is critical that both men and women be encouraged to learn and use technology, as well as feel that they have the necessary skills in order to do so. The maledominated technology and computer culture has hindered women from entering careers in the field of science and technology. According to Bolliger, how gender is represented in computer
technology advertisements can have an impact on existing and potential technology users-it may even have a significant influence on the adoption and use of technologies (51).

Similar evidence of women being depicted in denigrating and low-status positions, ascribed to them by their gender stereotype, is demonstrated by Marilyn A. Dyrud, in "An Exploration of Gender Bias in Computer Clip Art." Dyrud reports that textbook illustrations and graphics has indicated that gender bias is obvious in several academic disciplines, which helps explain why women are discouraged from disciplines that have been portrayed as male-only fields and knowledge. Dyrud's study extends to the field of business communication, which has typically been depicted and sex-role stereotyped as a man's occupational field. The issue of gender bias, so neatly illustrated by cookbook graphics, is not, of course, confined to the kitchen (Dyrud 31). While business communication and technical writing textbooks stress the importance of gender-neutral language in educating students to strive for gender bias-free writing and communication, these same textbooks have not extended this gender-neutral environment to their visual aids and graphics. Dyrud explains that several studies have demonstrated a gender bias favoring males in a variety of fields, such as psychology and geography. Dyrud states an obvious irony is operational here: As communication instructors, we expend much effort persuading our students that gender-free prose is the new paradigm (31). Visually, Dyrud contends, we still live in a traditional, male-dominated world (31). When women in the media are portrayed according to their gender stereotype, children form their identity based on these images they see. Women learn their appropriate behaviors and characteristics, and corresponding occupational fields and career positions, from what they observe in the media. Negative depictions of women, in their low-status and low-paid domesticated career roles, may discourage
women from entering traditionally male-dominated careers and disciplines. Dyrud’s literature demonstrates that gender bias is still a flourishing rhetoric and is available in many different genres of the media, including computer clip art.

Dyrud examines over 14,000 textbook illustrations and computer clip art files in order to find out to what extent clip art reflects gender bias, that is, favors the depiction of one sex over another in situations where gender is not necessarily an issue. Dyrud finds that in computer clip art, men prevail, outnumbering women roughly three to one (32). This is obviously an alarming statistic because, as Dyrud comments, "It is disproportionately smaller than the general population mix and alarmingly smaller than workforce statistics indicate as male/female ratios (32). Real world statistics belie the clip art numbers, Dyrud explains (33), because women outnumber men in regards to the world population, and women are also entering the workforce in greater numbers than men. According to the U.S. Census Bureau's, Table 648 Full-Time Wage and Salary Workers—Number and Earnings: 2000 to 2010, the number of females in the United States labor force increased from 44,103,000, in the year 2000, to 44,472,000, in the year 2010. The male population of the United States workforce actually decreased from the year 2000 to the year 2010, by 2,048,000 workers. As optimistic as these numbers are regarding women entering the professional workforce, and perhaps entering careers that have traditionally been only occupied by males, the media's depiction and perpetuation of negative gender stereotypical images of women has not changed to reflect the opposing cultural forces, and perhaps, social values.

Regarding Dyrud's examinations of illustrations and computer clip art, genderly speaking, it is a simple cosmos: men dominate and women are subservient (34). Computer clip
art and computer graphics reflect the stereotypical world in which most people feel comfortable in and use in order to make judgments and decisions. Computer clip art tends to reinforce stereotypical roles: as professional people, computer clip art males (CAMs) are depicted as doctors, dentists, managers (Dyrud 34). As tradespeople, images of CAM construction workers, technicians, plumbers, and electricians prevail. In contrast, computer clip art females (CAFs) are cast in stereotypical female roles: they are mothers, teachers, and nurses (Dyrud 35). Dyrud also makes significant mention that men vastly outnumber women in the professional arena, and businesswomen are typically portrayed as secretaries, rather than managers (35). Very few of the women in the visuals carried a briefcase, which would signify a professional role, and fewer were depicted as leaders. Dyrud explains that women were rarely shown in leadership positions, reinforcing the traditional perspective that men lead and women follow (45). Computer programing has been a male-dominated field, and Dyrud states that it stands to reason, then, that if most computer programmers are male, computer programs would thus reflect their world, peopled with male images (46). Dyrud's study shows that the media is a rhetorical force in today's society. When women are still portrayed according to their gender stereotype, it impacts their socialization and corresponding interest and entry into the workforce. Women may be socialized to only have an interest for or feel it is only appropriate to enter feminine occupations and fields, such as secretary or teacher. In addition, women may not feel they have the skills or behavioral styles necessary to strive for leadership or management positions. Dyrud suggests one solution: solving this particular problem means encouraging more women-from a very early age-to enter science and engineering fields. This means exposing women to gender-neutral images and rhetoric in the media. The media may need to alter their depictions and portrayals of
men and women before society can alter their cognitive schemata and social norms. The media is an active metaphor that has the power to translate images and experiences into reality. This is evidenced in the gender stereotypical depictions found in all media forms. In order to alter the state of reality, the media must alter their rhetoric.

## Computer-Mediated Communication

Lastly, another heavily used media form that gender bias and gender stereotypes have been researched to be a salient issue is computer-mediated communication. In two articles, "Categorical Person Perception in Computer-Mediated Communication: Effects of Character Representation and Knowledge Bias on Sex Inference and Informational Social Influence," and, "Effects of Gendered Language on Gender Stereotyping in Computer-Mediated Communication: The Moderating Role of Depersonalization and Gender-Role Orientation," Lee illustrates the widespread reliance of gender stereotypes as portions of one's cognitive schema to process information, more so in the presence of the lack of other identifying stimuli. In, "Categorical Person Perception in Computer-Mediated Communication: Effects of Character Representation and Knowledge Bias on Sex Inference and Informational Social Influence," Lee describes how stereotypes offer an avenue through which efficient, if not normatively correct, information processing can occur (309). People rely on stereotypes as cognitive shortcuts for which to make assumptions about others.

Given that assumptions about group membership and identities are often linked to visual cues of one's gender, Lee argues that the visual anonymity afforded by text-based computermediated communication (CMC) provides a means by which people can transcend various social stereotypes ("Categorical Person Perception" 310). However, Lee finds that gender stereotypes
are a salient, persuasive force in which other cues of one's group membership often evoke the use of gender stereotypes, even with the visual anonymity provided by CMC. Lee analyzes the extent to which people would assume the gender of an anomalous partner based on the arbitrary assignment of a male or female cartoon character and the answers to questions that pertain to sports or fashion. However, the predetermined character representation for each participant was designed to mismatch their actual gender. Lee argues in support of the social identity model of deindividuation effects (SIDE). According to SIDE, with the lack of social identifiers in CMC, people would be more likely to behave and be perceived as group members, thus increasing the salience of gender stereotypes. Lee's data indicate, in light of the absence of group revealing cues, participants still attributed greater masculinity to the partner when the partner expressed high confidence in sports questions than in fashion questions (Lee, "Categorical Person Perception" 320). Furthermore, even if participants responded in typical female style language, their partners still determined their gender to be male when expressing more knowledge on a sports-related question. Given that participants were presented with the verbal comments manifesting the feminine language style, the finding that people in the sports condition nonetheless attributed greater masculinity than femininity to the partner demonstrates the robustness of sex stereotypes in terms of presumed expertise in different domains for each sex (Lee, "Categorical Person Perception" 320). Lee’s study demonstrates how gender stereotypes are socially-prescribed and salient in our cultural norms. Lee concludes, "Given that participants were presented with an unambiguous sex-revealing cue in the form of verbal comments, the finding that this logically irrelevant visual cue triggered spontaneous sex inference evidences
how vigilant one's perceptions are to social category cues present in the immediate environment ("Categorical Person Perception" 323).

Individuals are socialized into their identities based on gender stereotypes and their prescribed behaviors, characteristics, and qualities. Because men are ascribed to be more knowledgeable and better performers in sports, even without visual cues to one's gender, the partners in the study that portrayed high confidence in sports questions were assumed to be male. Although the effect of character representation on sex inference was significant only among women, both men and women conformed more to the male- than female-charactered partner on sports questions (Lee, "Categorical Person Perception" 322). Based on the gender stereotype of "men-know-sports-better," conformity decisions were altered by only verbal comments, not visual proof that males were actually the people expressing more knowledge on the sports questions. That is, even with the unambiguous expressions of the partner's self-confidence, people were more likely to accept men's than women's opinions (Lee, "Categorical Person Perception" 323).

Lee reveals similar results regarding the persistence of social stereotypes in CMC, in his article, "Effects of Gendered Language on Gender Stereotyping in Computer-Mediated Communication: The Moderating Role of Depersonalization and Gender-Role Orientation." Instead of using an arbitrary verbal cue such as knowledge perceived to be either masculine or feminine, Lee investigates if and when gender-typed language use evokes corresponding gender inferences and activates associated stereotypes in synchronous, text-only CMC ("Effects of Gendered" 517). Again, arguing in favor of the SIDE theory, the depersonalization of individuals in CMC would increase the salience of group membership. That is, the more anonymous a
person becomes with the lack of sex revealing information, the more individuals rely on gender stereotypes with which to process information and make assumptions about others' genders. Depersonalizaton in CMC amplifies rather than attenuates social stereotyping. Lee analyzes participants' reactions and assumptions of their depersonalized partners' genders when only linguistic gender cues were given from the representation of either prototypical masculine or feminine style language. Just as masculine or feminine knowledge of a subject amplified individual's reliance on gender stereotypes to assume their partner's gender, Lee finds that traditional gender-role orientation indeed amplified the individual's tendency to infer their partner’s gender-related traits from language characteristics ("Effects of Gendered" 525). Specifically, gender-typed participants ascribed greater masculinity to their partner whose comments reflected the masculine than feminine language styles (Lee, "Effects of Gendered" 525). Lee's study proves that gender bias and gender stereotypes are a pervasive and omnipresent cognitive structure that is socialized into individuals' identities and cognitive schema. People use gender stereotypes as information cues with which they make judgments, evaluations, and perceived ways of behaving in situations. States Lee about the participants’ inference of their partners' genders, "When no personal information about the partner was available, they became more vigilant to the implicit gender category cues embedded in short comments and utilized such information to infer their anonymous partner's gender identity" ("Effects of Gendered" 528). Gender bias and gender stereotypes are instilled in people’s cognitive schema at an early age and may be used blindly throughout their life—even conforming to gender stereotypes-that is, adopting the accepted and appropriate characteristics, behaviors, and roles attributed to each gender. Consistent with the SIDE model, the present
research demonstrates that the lack of personalizing information, independently or in conjunction with the gender-role orientation, facilitates gender-typed person perceptions and conformity behavior (Lee, "Effects of Gendered" 528). The depersonalization provided by CMC accentuates the influence of group norms-those being gender stereotypical assumptions and expectations of a person to conform to the prescribed behaviors, characteristics, and qualities of each gender. Lee's texts show the salience of gender bias and its effects on one's evaluations and judgments. Employers and job hirers may make negative assumptions about women in regards to hiringrelated or promotion decisions when gender bias impacts their expectations and judgments.

The variety of media genres that I have examined exemplifies the pervasiveness and salience of gender bias and gender stereotypes in society. When uses as a reference for one's cognitive schema, the media's negative and degrading portrayals of women mark them as being weaker, emotional, less capable, and unqualified for traditional masculine roles. Women may receive negative evaluations and appraisals in the workforce and workplace simply by being a woman. Men have typically out-numbered women in the workforce, and women who try to compete in today's workforce face challenges and problems stemming from gender bias that is salient in society.

## CHAPTER 3: WOMEN'S DISADVANTAGED COMMUNICATION STRATEGIES AND NEGATIVE FEMALE GENDER STEREOTYPE

Researchers seeking to understand how and why many female engineers are disadvantaged in their positions are producing increasingly detailed pictures of the efforts of female professionals to gain legitimacy, drawing attention to the daily "performances" of women engineers as they negotiate everyday interactions in the technical workplace (Jorgenson 351). As more women have laid claim to opportunities for significant work in science and engineering, there has been a growing interest in how they learn and negotiate the categories of "difference" that characterize these historically male-dominated arenas (Jorgenson 351).

This chapter demonstrates how women's gender stereotype and diverse communication strategies negatively stigmatize them and place them at a disadvantage, especially in the workplace where the organizational culture has become male-dominated. Women's negative gender stereotype depicts an image of them as weak, incompetent, and unconfident, which creates challenges for them in the workplace. In addition, women face a double bind gender bias. They receive negative appraisals and evaluations when conforming to organizations' male communication style and also when displaying typical feminine characteristics.

Research reveals that men and women have different communication strategies. Some may argue that these differences in conversational styles are biologically based, but many would agree that men and women are socialized and conform to the typical male and female gender appropriate behaviors and characteristics they see in everyday life-many reproduced and promoted in the media-but also from their daily interactions and observations. Overall, this
chapter establishes how women's denigrated gender stereotype has contributed to, and often causes, their lower-paid and low-status positions in the workforce.

## Gendered Communication Styles

In, Talking from 9 to 5 Women and Men at Work, Deborah Tannen suggests that people have different conversational styles, influenced by the part of the country they grew up in, their ethnic backgrounds and those of their parents, their age, class, and gender (11). One could argue that men and women's diverse conversational styles arise from their gender stereotype. Based on the assumption that we learn styles of interacting as children growing up and that children tend to play in sex-separate groups in which very different styles are learned, practiced, and reinforced, Tannen agrees (12). Gender is one element of people's identities that accurately gives them a sense of self. Women are socialized into adopting the female gender stereotype and accepting their submissive and communal qualities, therefore, reflect the associated behaviors and conversational styles. Communicating in a work environment can pose many problems when men and women's communication strategies do not send the right message, or more commonly, when women's communication strategies are perceived to be submissive and not of managerial qualities. What we say as we do our work becomes evidence on which we are judged. Tannen reasons that judgments may surface in the form of raises (or denials of raises), promotions (or their lack or their opposite), and favorable (or unfavorable) work assignments (12 \& 13). Tannen describes how men and women differ in the particular ritual conversational styles they use. Men and women learn to speak in particular ways because those ways have been associated with their own gender (Tannen 15). Women may be constrained to specific low-ranking and low-paying positions in their workplace not only because their gender stereotype mechanically ascribes them
to these roles, but also due to the confusion that arises when their ritual nature of conversations are not shared and therefore not recognized. "Clashing conversational styles can wreak havoc at the conference table as well as at the breakfast table, with consequences as frustration and even more dangerous, since people's welfare and even lives can be at stake," states Tannen (17). Everyone's frustration will be reduced, and companies as well as individuals will benefit, if we all begin to understand and accept each other’s styles (Tannen 17).

Conversational rituals common among men often involve using opposition such as banter, joking, teasing, and playful put-downs, and expending effort to avoid the one-down position in the interaction (Tannen 23). Tannen recounts that conversational rituals common among women are often ways of maintaining an appearance of equality, taking into account the effect of the exchange on the other person, and expending effort to downplay the speaker's authority so they can get the job done without flexing their muscles in an obvious way (23). Margaret Ann Baker agrees regarding the conversational style of men and women. Baker confirms that men's style emphasizes competition, has winning as the basic objective, and uses a rational approach to solve problems (114). The style of women emphasizes cooperation, values quality output as the basic objective, and relies on intuition to solve problems (Baker 114). Men whose oppositional strategies are interpreted literally may be seen as hostile when they are not, and their efforts to ensure that they are avoiding appearing one-down may be taken as arrogance. When women use conversational strategies designed to avoid appearing boastful and to take the other person's feelings into account, they may be seen as less confident and competent than they really are. As a result, both women and men often feel they are not getting sufficient credit for what they have done, are not being listened to, and are not getting ahead as fast as they should
(Tannen 23). Most workplaces that have previously had men in positions of power have already established male-style interaction as the norm (Tannen 23 \& 24). Because the workforce and professional workplaces are typically male-dominated and the prescribed and accepted form of behaviors and communication strategies are male-oriented, women, and others whose styles are different, are not starting out equal, but are at a disadvantage.

## Reciprocal Accommodation

Women's different communication strategies and concern for others promotes a negative image in the minds of their peers. Employers do not perceive women to desire or deserve power and the associated management positions. Women's affable and expressive conversational style, which strives to be egalitarian and lets others take the credit for work done, has been perceived as too weak and incapable of managerial and high-status positions. This stereotypical thinking has made it difficult for women to be treated as equals to men, capable, and deserving of power. Coincidently, as Baker points out, although women are entering the workforce in increasing numbers, they are entering low-level or dead-end management positions (113). Baker quotes a statistic from the US News and World Report, 1986 issue, explaining how less than one percent of working women make over 50,000 dollars while nine percent of men make that much (113). Clearly women are at a disadvantage in the workforce, dominated by men, and unable to obtain the same high-power, high-salaried professions as men. Baker contends that women are denied by the depowering communication strategies society expects them to use and partly by society's unwillingness to believe that women want assertive power (113 \& 114). Similarly, Tannen regards that men feel women do not belong in positions of authority, certainly not in authority over them (133 \& 134). Tannen defines the glass ceiling: an invisible barrier that seems to keep
women from rising to the top (133). The glass ceiling effect is clearly a result of gender bias. Tannen does not doubt the fact that men might not want women to advance, "They may see every woman who fills a job in their field is taking that job from a man" (133). Baker argues that women would achieve power in management with reciprocal accommodation. That is, a collaborative effort in which effective, mutually satisfactory communication between two differing language groups is achieved when each group uses or respects the communication strategies used by the other group. Baker states, "Reciprocal accommodation suggests that women's best chance of managerial success occurs when women practice communication strategies that are perceived to be empowering, while at the same time those already in top management acknowledge women's right to those strategies and the power they represent" (114).

A redefinition of the workplace and workplace communication must be changed to be accepting of both male and female's different conversational styles and perceive them to both be desiring of and deserving of power. Value accommodation is also necessary for women to achieve the power and high-status that they deserve and are capable of. Value accommodation holds that society must change and be open-minded as it learns to value and be respectful of the unique communication strategies associated with women. This theory of value accommodation also has support in the business world from those who believe that women should be encouraged to use communication strategies traditionally associated with their gender (Baker 122). However, proponents of this theory also believe that businesses should recognize women's unique conversational styles and managerial styles and create specific roles for them. Why, though, should jobs be created just to fit women’s characteristics when they are already capable of doing the jobs that already exist? Creating specific roles for women in the workplace seems like
businesses or organizations are only changing to fit women into their already male-oriented normative society. Baker claims that this intricacy of language suggests that it both creates and reflects women's roles in society and business (122).

Similar to Tannen's explanation, Baker describes the gender stereotypical characteristics and communication strategies associated with each gender and assumed by most people. Women have been depicted as being reactive, while men are portrayed as task-oriented and proactive. Society has come to perceive women as being childlike, eager to soothe hurt feelings, flatterable, gentle, gullible, shy, and yielding; whereas, men have been perceived as self-reliant, assertive, analytical, competitive, and ambitious (Baker 114). In order to include women as managers and in powerful work roles, as well as gain a voice for women in technical communication, the business world needs to be restructured to allow for both male and female's styles of leadership and management strategies to be accepted as powerful. Because traditional perceptions are pervasive and often unconscious, all facets of management may need to engage in a reciprocal or collaborative effort to reduce gender bias in communication (Baker 124). Reciprocal accommodation works on the premise that communication is collaborative. The intent and communicational style of those that want power should be the same as those that can grant them power. Baker explains that reciprocal accommodation proposes that women who want power monitor and, if necessary, modify their communication strategies while those who have the authority to grant that power monitor and, if necessary, modify their behavior and perceptions about women's roles in business (123). Assuming that women already accept the values of those in power, they can reinforce that commitment and encourage accommodation from those in power by practicing powerful communicative strategies (Baker 123). This equal environment
that is accepting of both male and female's communication strategies, and perceives them both as capable and desiring of power, might ultimately shrink the gap of communication and authority between men and women in the workplace.

Allen also indicates managers' gender bias thinking: some managers will argue that women do not want high-power, upper-level management jobs because they prefer less stressful roles that allow them to balance their careers with their familial roles (376). Tannen agrees that the argument that women don't really want high-pressure jobs has been used to avoid giving them the chance (159). Women are still being held to their gender stereotype that has been consistent since history; they are bound to their reproductive capabilities, assumed to be the caretaker of the household, and perceived to be of lower-status than men.

## Management Rituals

When interacting with colleagues and subordinates women use communication strategies which make them appear more affilitative than men (Baker 117). While having the same management goals and philosophies, men and women obtain these in quite different ways. Women's people-oriented strategies enable them to foster a more personal relationship with subordinates and use rewards as incentives. In contrast, men's prestige-oriented strategies, in which they display their expert influence to execute their authority and reach their initiatives, has been granted greater power in a workplace environment in competition with women's affilitative strategies. Tannen regards this as the workplace having already been male-dominated and the male-style communication strategies are now conventional. Tannen concurs that women and men's philosophies of management are different. Women focus on people as the best way to get the task done, whereas male managers are autonomy-invested and image-engrossed. Because of
their experience playing in groups of boys when they were children, many men develop sensitivity to being told what to do (Tannen 185). High-status boys get and keep their status by giving orders. However, women strive to make their employees happy and maintain a relationship with them. Women's people-oriented strategies stems from girl-groups, in which girls found it desirable to be liked and not singled-out. Wanting to be liked may be one reason many women find it appropriate to be extra nice when they're in a position of authority, assuring others they are not throwing their weight around (Tannen 190). Despite women's managerial success using their unique communication strategies, they are still perceived as incapable of authority, especially by their male co-workers. Tannen asserts, "While it may work well for them by making them more likeable, this ritual can work against them by interfering with a demeanor that exudes authority" (191). Baker explains that using affilitation to direct subordinates implies weakness because it commits the superordinate to maintaining a personal relationship with those of lower-status (117). This can cause severe damage to women's relationship with male peers when their communication styles do not match. While men use their power to direct authority, they typically believe that people-invested communicative strategies reflect a lack of confidence. Furthermore, even in as a manager or supervisor, women many times take the position of a novice or listen to their subordinates in order to make them feel smart. Taking the position of one with less authority is a demonstration of women's caring for others' feelings and egalitarian approach to management and communication.

As children, girls are socialized in groups that strive for equality. Boy groups are hierarchical, where one is always in the one-up position and must showcase his authority in order to maintain his leadership and power. Women in leadership positions tend to downplay their
authority in order to maintain an egalitarian workplace environment. Tannen suggests that creating their demeanor in a position of authority is yet another conversational ritual growing out of the goal of keeping everyone on an equal footing (177). However, if we hear people asking lots of questions and being lectured to, an impression takes root that they don't know much and that those lecturing to them know a lot (Tannen 144). People use this information cue to assume that the person getting spoken to is lacking in ability or inferior to their peers. Onlookers who view this behavior from women, especially those that make promotion decisions, which again, are usually men, underestimate women's abilities and perceive this as a lack of confidence and competence. Tannen explains how the conversational rituals common among women are designed to make others feel comfortable, and this often involves the speaker taking a one-down role herself (146). In contrast, since men's characteristic rituals have grown out of the assumption that all relationships are inherently hierarchical, it is not surprising that many of them either see less reason to downplay their authority or see more reason to call attention to it-to ward off inevitable challenges (Tannen 177). When men view this communication behavior from women and do not understand their goals and rituals, women are perceived negatively and are hindered from being promoted or advanced to high-status positions. Baker's literature demonstrates how the female gender stereotype both reflects and creates their submissive communication strategies that, consequently, hinder them from advancing in their career. Femaleness is associated with softeners, mitigation, and politeness, whereas maleness is associated with authority (Tannen 168).

In concert with women's people-oriented managerial strategies and concern for others, most female managers' indirect communication style invokes the image of a "mother." Because
the domesticated role of the mother is one of the few images we have of a female authority, this stereotype is often attributed to women in management positions. Because of American’s egalitarian ideology, mothers tend to downplay their power and authority relative to their children; thus, the "mother" stereotype is predominantly a negative image for women, particularly when reflected in the workplace. In addition, Tannen states that the way many middle-class American women talk to their children helps create the image of mothers as relatively powerless (162). American mothers tend to use over simplified language and "baby talk" when talking to their children. As a manager giving orders or directions, subordinates may feel like children supplicants. In contrast, men in authority, given their aggressive and direct method of communication, are more likely to suggest a military commander or a sports coach or captain metaphor. Clearly, men's authority stereotype is an image of power and leadership, whereas women's authority figure stems from her domesticated, weak, motherly role in the household. Likewise, obvious physical characteristics in appearance are culturally recognized as authoritative and powerful. Men are generally taller, more muscular or heftier, and have deeper voices. Part of the reason images of women in positions of authority are marked by their gender is that the very notion of authority is associated with maleness (Tannen 167). Slighter, higherpitched voiced females are unable to compete with the male image of power. Tannen contends that anyone who is taller, more heftily built, with a lower-pitched, more sonorous voice begins with culturally recognizable markers of authority; whereas anyone who is shorter, slighter, with a higher-pitched voice begins with a disadvantage in this respect (167). Regardless of equal qualifications, or even if the case may be, equal communication styles, women's appearance alone places them well behind men before the race even begins in the competition for
advancements and leadership opportunities in the workplace. Simply the image of women affords them low-status roles. Expectations about women, based on preconceptions, can affect and determine how they are evaluated regarding confidence, competence, leadership capabilities, and aspirations.

In contrast to the agreed upon finding that men and women do, in fact, have different communication strategies, Barbara Mae Gayle, Mike Allen, and Raymond W. Preiss build on these findings by reviewing literature regarding masculine and feminine conflict management strategies, in their article, "Embedded Gender Expectations: A Covariate Analysis of Conflict Situations and Issues." Gayle, Allen, and Preiss find inconclusive and variant literature regarding a gendered difference in the selection of conflict management strategies and the use of gender bias in the selection process. Gayle, Allen, and Preiss report that some studies identify gender as a salient issue; researchers do not agree on patterns of, or situations involving, gender differences in the preference for particular conflict management strategies (379). Other scholars have suggested that men and women employ quite similar conflict management strategies across a variety of situations and settings (Gayle, Allen, and Preiss 379 \& 380). Gayle, Allen, and Preiss set out to confirm the theory that males use competitive or controlling strategies more than females, and females engage in compromising strategies more than males (380). While these styles may be different, they both can be successful in getting people to do what one needs or wants or what is needed in the workplace. Competing for status for a man means establishing a one-up position with his subordinates-that is his way of getting them to do things, due to his higher-status. However, a woman's focus on building relationships, ties, and connections with her subordinates may also enact their acceptance of orders or instructions because of the
woman's interest in their lives and feeling like they are valued as a person. Tannen states that men focus on having clout, "Having clout means being one-up, so you can get others to do what you want" (205). Women focus on connections. Perhaps analogous to their communication strategies, which illustrate their gender stereotypical characteristics, males are more controlling and dominating, while women remain submissive and more concerned with others.

To determine if conflict management strategies, as well as different contexts or situations are perceived to be more masculine or feminine, and consequently, more or less successful, Gayle, Allen, and Preiss distributes a questionnaire regarding different conflict management strategies used in different situations to see if participants respond positively or negatively in favor of one gender over the other. This is pertinent information because gender constructions and cognitions guide the selection of appropriate conflict behaviors, as evidenced from Chapter Two, and how individuals utilize their cognitive schemas in order to make judgments and guide their behaviors may affect others in different ways. The authors place the results from 5,478 respondents into five different conflict management categories: avoid, accommodate, compete, compromise, and collaborate. Gayle, Allen, and Preiss find that males are $27 \%$ more likely than females to use competitive strategies; whereas females are $27 \%$ more likely to use compromising strategies than males (381). Gayle, Allen and Preiss suggest that males and females may select compromising and competing conflict management strategies based on their "appropriate" gender role behavior, rather than to the processes that emerge over the duration of the interaction (381). Gayle, Allen and Preiss conclude that females and males in some situations may act according to their prescribed gender roles, and in other situations, the norms associated with the social roles they occupy (such as membership in an organization or family) may regulate and
alter their behavior (381). Gayle, Allen, and Preiss illustrate how gender differences and gender bias do exist in the workplace and alter the behavior of both men and women based on their gender stereotypical roles that have become embedded in society. The different management strategies of men and women tied to gender bias in the workplace can have negative and limiting affects over the success and influence of females in their career.

## Double Standard Gender Bias

While some people believe that if women are to achieve power and high-status roles in the professional workforce, they must learn to use men's prestige-oriented and authoritative communication strategies, both Tannen and Baker prove that this is not so. Not only are women deprived of career advancements and promotions in the workplace because of their gender stereotype and associated characteristics of being submissive, unintelligent, and only capable of domestic roles, women who project masculine characteristics and competitive and authoritative conversational styles are also evaluated negatively. It appears women confront a double standard—although the workplace has become male-oriented and men's managerial styles are the prescribed behaviors, women who conform to male's communication strategies are also denigrated for contradicting their feminine qualities. Baker recognizes the fact that women's use of empowering language may be perceived differently than a man's use of identical communication strategies (122). Because this style was expected of and associated with men, women who adopted it were seen not as trying to be efficient, competent, and businesslike, but as trying to be like men (Tannen 195). Tannen depicts the response of a man from a woman's use of male's communication strategies, "She’s got a pseudomasculine style" (195). In addition, Tannen expresses that if one tries to adopt a style that does not come naturally, one leaves behind
intuitions and may well behave in ways inappropriate in any style or betray the discomfort one actually feels (131). Perhaps this is why women many times feel flustered in confrontations and appear unconfident because they are not use to direct communication of their ideas or selfpromotion. A woman who contradicts her female gender stereotype is perceived as "not feminine enough." That with said, the female gender stereotype has not been perceived to be capable of high-status, high-power positions. Baker examines the communication and conversations of people in different levels of management. Baker's results indicate people will sometimes accept a woman's use of expert, task-oriented strategies, while at other times traditional perceptions of women may lead people to criticize or ignore empowering strategies (123 \& 142). Baker concludes that the obvious implication of this inventory is that men are more suited than women to hold positions of power in business, positions that can demand evidence of all the masculine traits (114). For these reasons, women are disqualified and discriminated against in their workplace, both when portraying their feminine qualities and when displaying masculine characteristics. Tannen concurs how individual men or women who speak in ways associated with the other gender will pay a price for departing from cultural expectations (16).

Other scholars express similar evidence of women's double bind gender bias. Tyler and McCullough illustrate how women are perceived negatively when their resumes communicate agentic qualities instead of their gender stereotypical characteristics of submissiveness and passiveness. Tyler and McCullough maintain that the resume is a self-presentational tool that allows people to communicative a particular identity to employers or job-screeners. Selfpresentation is a communicative act that involves people regulating information about themselves to influence the impression others see of them. Employers and job-screeners judge
resumes based on both descriptive and prescriptive stereotypes. Descriptive stereotypes describe what members are typically like and prescriptive stereotypes describe the behavior standards group members must uphold to not be segregated or scorned. Essentially, prescribed behaviors are the gender-appropriate behaviors that society has accepted as being typically normative of males or females. Tyler and McCullough confirm Tannen and Baker's notions regarding the male gender stereotype: men are agentic and achievement-oriented. Conversely, the prescriptive stereotype reserved for women is communal and refers to social and service-oriented traits (Tyler and McCullough 275). Tyler and McCullough examine participants’ reactions to resumes based on whether the resume communicates agentic or communal qualities and whether these qualities of the respective resumes are evaluated positively or negatively based on the gender of the applicant. Results of Tyler and McCullough's study indicate that when women's resumes violate gender stereotypic prescriptions by communicating agentic rather than communal identity images, men evaluated them more negatively on hiring-related judgments (283). Tyler and McCullough's evidence proves that when women project qualities and behaviors that contradict their female gender stereotype, they are judged negatively.

Tannen also describes women's double bind gender bias in their communication styles. Tannen regards that when women in management positions try to enhance their assertiveness by engaging in male-style communication, they risk undercutting their femininity in the eyes of others. However, everything she does to fit expectations of how a woman should talk risks undercutting the impression of competence that she makes (Tannen 203). In addition, Tyler and McCullough also state that their findings give insight to the decision-making process involved in the prescreening of gender-identified resumes (283). The authors' data further indicate that male
decision makers' ratings of the agentic applicants’ social skills mediated the relationship between applicant gender and the evaluation of the applicants on the various hiring-related measures (Tyler and McCullough 283). Female applicants are viewed as less socially-skilled and addressed more negatively when a male decision-maker perceives them to have agentic traits instead of traditional communal traits. Women are both bound by and restricted by their traditional female gender stereotype.

## Negotiation of Capabilities

Despite the gender bias that women face in the workplace, they still desire the same positions and authority as men and even try to deny the challenges they face in light of their gender being perceived as weak and incapable in many workplace cultures. Jorgenson reveals how women in the field of information technology feel in a highly masculine career where men outnumber women. As more women have laid claim to opportunities for significant work in science and engineering, there has been a growing interest in how they learn and negotiate the categories of "difference" that characterize these historically male-dominated arenas (Jorgenson 351). Women seem to have to negotiate their capabilities and authority in the prototypical masculine profession. A female secretary is rarely seen as incapable of her position duties; however, a woman in the field of engineering faces a more difficult fate in demonstrating her competence and capabilities. Jorgenson seeks to understand how and why female engineers are disadvantaged in their positions by producing a detailed picture of the efforts of female professionals to gain legitimacy (351). Jorgenson draws attention to the daily "performances" of women engineers as they negotiate everyday interactions in the technical workplace by exploring the narratives of women engineers. Jorgenson interviewed fifteen woman engineers and found
that most of the women did not initially present themselves as gender pioneers or fearless nonconformists, nor did they frame their experiences in terms of being women in a predominantly male field (362). At first sight, these initial results may insinuate that the field of science and technology may be perceived as an egalitarian field and that the discrepancy between the number of men and women entering the field is diminishing, but upon closer examination of the women's narratives, Jorgenson finds that their experiences were highly situational. Women position themselves differently in different workplace situations and either emphasize or minimize their gender when it is beneficial for them or not. Results from Jorgenson's study indicate that participants positioned themselves as intellectually and emotionally career identified, organizationally adept in coping with male-dominated workplace cultures, nonfeminist in the sense that they were reluctant to organize as women, good mothers pained by conflicts between work and family, and singular selves resistant to being perceived as members of a homogenous group (362).

While women are socialized into finding more attractive and pursuing the sex-role stereotyped careers that are deemed gender appropriate, Jorgenson reveals how many of the participants cast themselves not only as academically proficient in math and science, but also as singularly called to the profession (363). Some of the participants even regarded how engineering was an unusual talent prefigured in childhood (Jorgenson 363). However, the word, "unusual," may also indicate that women perceive an aptitude for math and science as an abnormal talent and fondness for a female, in contradiction to the female gender stereotype. Jorgenson even states, "Her story conveys her sense of herself as going against the grain of typical childhood patterns" (363). Many of the woman engineers found is necessary to master the
social requirements of the occupational culture, emphasizing their successful survival strategies rather than vulnerabilities or self-doubts (Jorgenson 364). The women engineers sought to emphasize how they were confident and successful in their capabilities. Many positioned themselves as efficacious agents rather than as helpless victims; they sometimes also invoked traditional feminine stereotypes to underscore their differences from other women (Jorgenson 364). Because the workplace culture is largely male-oriented and may only accept and use malestyle, direct, and authoritative communication styles, women engineers find it necessary to present a disciplined and assertive persona in the workplace. Tannen supports this maledominated organizational structure in which women have to conform to the masculine norms in order to compete for advancements and negotiate their capabilities. Tannen states that women who speak assertively may get more negative response than men who speak in similar ways; nonetheless, many women in positions of authority, and women in the business world in general, do gradually adapt their ways of speaking to the norms of the world they inhabit—norms that may be different from those they previously followed (198 \& 199).

Women in the field of science and technology face gender bias when challenged with having to alter their natural communication strategies to meet the male demands of the workplace. Research attests that when females and males get together in groups, the females are more likely to change their styles to adapt to the presence of males (Tannen 119). Engineering culture prescribes a masculine model of comportment; therefore, women feel they have to conform to this organizational structure. Despite these intrapersonal demands that are not of consideration for men, the women seemed to welcome these challenges, with phrases such as, "It challenged me, you know, pushed my envelope. How could I relate to a male environment?

Would I give in under pressure? Could I keep up with them?" (Jorgenson 365). It was a developmental opportunity. However, women who alter their communication styles to sound authoritative are inherently at risk of sounding male. Realizing that the very image of authority is associated with masculinity makes it easier to understand the images of professional women in our society (Tannen 169). At the risk of sounding masculine, just to be perceived as assertive, valuable agents in the workplace, women are also at risk for contradicting their female gender stereotype, which is also perceived negatively. Again, women who wish to demonstrate that they are both capable of a man's position and an asset to companies and businesses face a double standard gender bias when they are perceived negatively when both portraying masculine and feminine characteristics. The prevalent image ambush professional women as they seek to maintain their careers as well as their personal lives-and their femininity (Tannen 169).

Jorgenson's account of women's professional legitimacy and expertise being belittled signals unmistakable evidence of gender bias in the workplace. Two-thirds of all the participants made reference to episodes in which they were not well received or their professional legitimacy was challenged (365). For example, one comment made to a woman by a man was, "Honey, you really don't have a degree do you?" (Jorgenson 365). Tannen illustrates a similar example of a woman construction worker operating a derrick. A man passing by called out to her, "Hey Mama, what's for supper?" (Tannen 118). Women who step outside of their expected occupations and positions are met with gender bias and sexist remarks and attitudes. Tannen states that when our expectations are not met, we call it sexism—responding to old patterns of gender that no longer apply, or no longer apply in all instances (118). Although women strive to emphasize their capabilities and competence in the male-dominated world, one factor is still
clear: they are women and many times cannot sidestep their gender stereotype. In order to compete in the masculine organizational culture of the workplace, many women strive to disassociate themselves from their gender; for example, one participant tried to disassociate herself from a "very ditzy" female engineer in the same office who was widely perceived as incompetent and who sat at her desk each day "painting her nails" (Jorgenson 366). While striving to accentuate professional competence in opposition to stereotypically feminine traits, women may inherently emphasize the tacit understanding that the "ideal" worker is male. Although the field of science and engineering has typically been considered a male-dominated profession, the women engineers position themselves as nonfeminists and recount how engineering is a gender neutral profession. This might be an indication of women not wanting to "stand-out" in their profession as a female and to convey that they are nonthreatening and allied with other engineers. Jorgenson agrees that the reluctance to risk heightened visibility as members of a women's organization as well as the reluctance to appear to have benefited from affirmative action policies seem consistent with assimilation strategies widely observed among female scientists and engineers to disqualify their femininity by muting their visibility as women (369 \& 370).

Despite trying to minimize their femininity in the workplace, women engineers are direct in expressing their struggles to negotiate family responsibilities around work demands, especially in the organizational culture where the ideal worker is a male with no family responsibilities to interrupt his work. This is clear from one participant's account, "There was not a question, in his opinion, if you've got family obligations, if you've got a kid who's got pneumonia, then you need to have another job and let men build ships" (Jorgenson 370). That with said, the women
resist the idea that this is gender discrimination holding to the contention that the engineering profession is a meritocracy, in which each pave their own way. It seemed that while many of the women have the same experiences with gender bias in the workplace, they all heavily emphasize that they are their own individual, not a feminist, and not part of a woman-group. It seems that positioning oneself as a singular seems to disqualify women's femininity and resist the problem Jorgenson's study is focusing on: the female gender and the challenges they face in the workplace. The women's professional identity spills over into their daily lives-they seem to struggle constantly with the fact that they are a woman in a man's world. The denials of sexism in engineering do not necessarily signal an absence of reflective critique but rather are tied to the participants' perceptions that this research (on "women engineers") is by definition a challenge to their professional legitimacy (Jorgenson 374). In this sense, the discourse of gender neutrality may constitute a demonstration of one of the various distinctive practices cultivated over time through which they position themselves as qualified engineers (Jorgenson 374 \& 375). The confrontation of women's professionalism from merely the study of gender bias in the workplace parallels Allen's argument that scholars resist doing gender workplace studies for fear of uncovering uncomfortable issues regarding gender bias and discrepancies. The main findings of Jorgenson's narratives indicate strong evidence of gender bias in the workplace, perhaps even more so in the traditionally masculine field of science, technology, and engineering. Women have to negotiate their capabilities by conforming to the male normative in communication style and organizational structure, as well as deemphasize their feminine qualities, while at the same time reinforcing the female gender stereotype.

Future of ICT

In order to increase the number of women entering the tradition masculine sector of information and communications technology (ICT), Moore et al. find it necessary to find out women's experiences and feelings about their position in ICT and about the future of the field, as women are still largely under-represented. Just as Jorgenson studies women's narratives about their experiences in the workplace, Moore et al. investigate women ICT professionals. Science, engineering, and technology has been sex-role stereotyped and prescribed to be a male's occupational field. Even though more women are entering what was typically considered to be masculine careers, the ICT sector still remains under-represented by women. Moore et al. state that women remain under-represented in the information and communications technology (ICT) profession in the UK, and this seems likely to continue in the future (523). Although this study is conducted in the UK, the results still hold true in the United States, as Jorgenson indicates with her study. Helen Hatchell and Nado Aveling’s article, "Those Same Old Prejudices? Gendered Experiences in the Science Workplace," describe how the lack of a female voice in the sciences field is a world-wide problem: Feminist educators in the 1970s and 1980s identified the problem of the under-representation of women in the science workplace as a worldwide phenomenon (356). In fact, more recent data provided by the United States Department of Labor indicate that the number of male technical writers, in the United States, in the year 2010, was 23,000, in comparison to only 22,000 female technical writers ("Household Data Annual Averages 39. Median Weekly Earnings of Full-time Wage and Salary Workers by Detailed Occupation and Sex"). The lack of a female voice in the ICT field has serious implications for women in the workplace, as far as obtaining traditional masculine careers, but also specifically in the field of technical communication, as many new innovations and technologies that require documentation
are used by both men and women and must be made to accommodate both communication styles. What's more, every aspect of our lives is touched by sociotechnical systems; thus, without women's contributions, men will continue to be the dominant agent in society. Hatchell and Aveling agree that as society continues to become more dependent on science and technology, the under-representation of women in the sciences, not only in terms of absolute numbers but also in terms of visibility in the upper levels of the professions, represents a waste of human capital and continues to alarm policymakers and educators (356). Thus, Moore et al. argue that through research with female ICT professionals, it is possible to begin exploring the ways in which women's everyday lives intertwine with socio-technical change, for better and for worse, while steering a course between utopian and dystopian visions of the future (526).

Women's perceptions of the future of the ICT sector is important because if more women perceive the ICT field to be inclusive and accepting of women as equal participants in a field that has been previously male-dominated, then perhaps this will encourage more women to enter the field, thus reducing the discrepancy between the number of male and females in the field. In addition, perhaps female students will be more likely to seek the education necessary to enter the ICT field if they see it becoming a more neutral occupation, capable by both sexes. Women have been socialized into accepting and adopting the typical female gender stereotypical behaviors and accepted and appropriate roles. Hatchell and Aveling describe the narration of a woman with her Ph.D. in the science discipline, "By conforming to a feminine stereotype which excludes science, they are moving towards traditional women's occupations and the low pay and low status which frequently accompany such occupations" (356). Women must be encouraged to sidestep their female gender stereotype and reach for careers in the fields of science, engineering,
and technology. Furthermore, businesses and organizations are changing to require more "soft skills," those that are unique to women, such as building relationships and affilitative communication rituals. Moore et al. recall that changing working environments and practices creating further demand for "soft" skills is generally presented as an opportunity for women, given their supposedly "natural" attributes, such as empathy (529). The ICT industry not only requires one to have the technical expertise, but workers who also possess social and communication skills are becoming valuable—being termed, "hybrid," or, "bridge," workers. Thus, women could be these rapidly recruited and retained workers. In response from a questionnaire and results from interviews of women in the ICT sector, Moore et al. indicate that female ICT professionals hold a very mixed view of the future of the ICT industry, particularly in relation to the position of women within it (531 \& 532).

Although most of the participants were positive about the future reduction of the female under-representation in the ICT sector (Moore et al. 523), they were still pessimistic regarding the industry's image becoming more female-friendly in the future. Females may still be judged and criticized because of their female gender stereotype not being considered capable or having the skills necessary for the fields of science and technology. Moore et al. regard that the strength of the social construction of technology as masculine is clear (523). The number of women in the ICT sector may change to become more equal, but the masculinization of technology remains the norm. Women seem to think that the future of the ICT field will remain a male sex-role stereotyped career.

The increase in the number of women in the ICT sector is fundamentally instigated by businesses and companies demanding more workers that have both "hard" and "soft" skills. The
ability to communicate well, especially with more businesses off-shoring to geographically distant groups, has prompted a greater need for employees that have good intrapersonal communication skills, which are typically women. Regarding women's unique communication styles, Tannen states that failing to recognize the achievements of those with styles that do not call attention to themselves is a loss not only to the individuals but also to the companies (159). Respondents see opportunities for women growing in the ICT sector as technologies and the communication strategies used by women come to be seen as more of a business tool. Many women saw ICT as becoming increasingly integrated with business needs and processes, an integration that would require both "soft" and "hard" skills from ICT professionals, forming this demand for the ideal gendered hybrid worker (Moore et al. 533). While these changes in the ICT field may benefit women's representation, the emphasis on their unique social and communication skills may still accentuate their gender and underscore their equality in the masculine organizational culture. Women who obtain careers the ICT field because of their femininity may inaptly be increasing the salience of a negative female gender stereotype-one that has become obdurate in our society. Here we see the reconstruction of gender binaries of naturalized attributes, made sense of through talk about the future of ICT work and the ICT sector (Moore et al. 537). As women benefit from the move away from a purely technical work towards business integration and offshore contract management, they might also be negatively affected when gender stereotypes are reinforced and perpetuated. Moore et al. argue that such essential discourses, future-oriented or otherwise, serve to reinforce gendered assumptions about women’s relationship with technology (537). Moore et al. conclude that the future is produced through discourse as a realm in which disadvantageous gender relations are challenged and
reinforced simultaneously (537). Is the professional workforce able to view women's distinctive characteristics and skills as both essential and equal? By exploring individuals’ personal futures, in the ICT sector and beyond, we can explore how gender relations shape what individuals think possible in the future, what they feel they should be doing in the future, what they wish they could be doing in the future, and what plans are viable for them, given assumptions of contemporary gender (and technology) relations (Moore et al. 538).

While the integration of women's unique people-oriented skills and their scientific and technical education may have opened up new and more opportunities for women in the sciences fields, Hatchell and Aveling explain how this "pipeline effect" is not holding true. While women may have overcome their reluctance to enter the sciences fields, they still hold lower-status and lower-paid occupational roles than their male counterparts. In addition, more women scientists, engineers, and those in the ICT field are more likely to work in part-time positions. Hatchell and Aveling argue that the masculine organizational cultures of the sciences fields are at fault for the under-representation of women. Hatchell and Aveling present the stories of seven science PhD graduates to showcase how overt and covert sexism and gender discrimination was the cause of their negative experiences in their fields and how they had to negotiate their capabilities to gain credit for their work. The fields of science, engineering, and technology have been traditionally recognized as a man's line of work; therefore, the organizational cultures of the fields have become male-dominated. In a masculine organizational culture, gender stereotypes hinder women's success. Women are perceived to be less career-oriented, and the perception of the male scientist continues to pervade society's expectations. In addition, this male scientist perception manifests itself into such things as males being more likely than females to be hired
or given credit for their work or ideas. Women are "marked" as the gendered "other" and positioned less than men in the male-dominated organizational culture. Women's gender stereotype of being a caring, nurturing mother positions them less than men who are perceived to occupy the dominant, economic role. In other words, the genders are positioned in opposition to each other, with one being valued more highly than the other (Hatchell and Aveling 360). Hatchell and Aveling comment:

One quote from a woman Ph.D. scientist illustrates how women are always and already represented as a sexed category within the context of a masculinized—read powerfulculture, "But it’s mainly the aggressiveness, being in a seminar where all the men attack each other and try and establish status by showing the other person's wrong. That's how the men operate. That's the male world to me. But I just hate that, the male adversarial way of doing things. (360 \& 361)

Hatchell and Aveling contend that these quotations graphically illustrate the ways in which gender-based harassment continues within a field that can often be totally masculinized (361). Hatchell and Aveling also indicate that retention rather than recruitment is an increasing problem for women's under-representation in the field (359). Although anti-discrimination laws are in place to fight against sexism and gender discrimination in the workplace, much of the gender discrimination that women face in the workplace goes unnoticed by these anti-discrimination laws because of its covert nature, as well as women not speaking up about their experiences, or worse, feeling that is just a part of being a professional. Results from Hatchell and Aveling's study of narrations from women scientists with their Ph.D.'s confirm that much of the discrimination is covert (362). The women in our study talk about continued sexual
discrimination, sexualization, evidence of male privilege, and the existence of a boys' club, as well as an obvious glass ceiling (Hatchell and Aveling 362). Although the women scientists with their Ph.D.'s were capable, worked hard, and had the necessary education to compete in the traditional male-dominated field of science, aspects of organizational culture tended to generate feelings of powerlessness and also anger in these scientists (Hatchell and Aveling 362), which eventually drove many of the women to resign from their positions. Hatchell and Aveling report instances in which women scientists received both overt and covert gender discrimination. Overt discrimination is the type of discrimination that is blatant and includes instances of verbal abuse and sexualization (Hatchell and Aveling 365). One women scientist spoke about a senior postdoc male colleague, "Taking his lead from our mutual supervisor, he treated me with a reasonable amount of contempt, which was usually combined with breast-talking and posturing such as hands on head or crossed ankles with his feet resting on a table" (Hatchell and Aveling 365). Hatchell and Aveling find that many of the women scientists experienced covert sexism, as revealed by one statement from a woman participant in their study:

There are times when I have felt penalized for being too feminine, and I have seen other women also penalized. It’s like if you're female, you need to "be" a certain way. You need to look a certain way, dress a certain way, and talk a certain way, and all of these are what our society is generally pushing how females should act, look, and talk; such role models can be found in common women magazines. But then, at the same time, if you are "successful" at being all these things, then you are expected to be an idiot who can't think (and who wants to get married and have kids). People are happy when you act your gender, when you dress, look, and talk a certain way. (366)

A great deal of covert sexism becomes such subtle discrimination that it goes unnoticed by the anti-discrimination act and is also perceived as a norm in the masculine organizational culture. Many male's feel that they are more important and more dominant in their field of study, thereby, can denigrate women based on their femininity. In addition, because many women seem to accept covert gender discrimination as something they have to endure from being a female professional, they do nothing to discontinue their stigmatization in the workplace. When females do not speak out about their experiences of gender discrimination, it has a self-perpetuating effect, as males are allowed to discriminate against women, it happens more frequently, thereby, becoming a part of the normative culture. Through the process of sexualization, women are tolerated because they are women, but they are not necessarily treated as serious scientists (Hatchell and Aveling 370). From the women's narrations, Hatchell and Aveling are able to clearly identify many instances of covert discrimination in the form of sexual discrimination, sexualization, male privileging, and the existence of an obvious glass ceiling (368). Hatchell and Aveling conclude that sexualization and actual sex-based discrimination remain dominant in the science workplace (369).

Just as Tyler and McCullough reveal that women receive a double bind gender bias, Hatchell and Aveling express similar evidence. Women are perceived negatively both when portraying agentic, masculine qualities and also when displaying their femininity. Hatchell and Aveling describe how the women were disadvantaged if they acted in too feminine a fashion (and thus treated as if they were not able to think), but also if they did not act in a feminine enough fashion (in which case they were "pushed to the bottom of the ladder") (370). The combination of the masculine organizational culture with the pervasive representation of women
as the gendered "other" is a powerful force in how women perceive themselves as capable scientists and women. Hatchell and Aveling’s research validates Jorgenson's testimony of women in the ICT field having to negotiate their capabilities and style of communication they have to conform to in order to compete in the masculine field. Just as Jorgenson emphasizes how women engineers found it necessary to present a disciplined and assertive persona in the workplace, Hatchell and Aveling recount how the women scientists had accepted the liberal feminist pronouncement that women can do anything, but they also understood that this required them to become more like men, that in order to succeed they needed to adopt a "male" style of working and being (370).

The future of the fields of science, engineering, and ICT for women can be predicted from the narrations and experiences of those women already in the field. Both Moore et al. and Hatchell and Aveling find that the sciences fields are to remain masculine. This negative prospect for the fields of science, engineering, and technology has serious implications for the future of the science industries to include women as a dominant force. Women need to be encouraged to and strive for occupations in the sciences fields. Hatchell and Aveling contend that the privileging of the male over the female represents, in stark form, an imbalance between those who have power and those who do not (369 \& 370). In addition, in order to retain the women who are already in the fields of science, engineering, and technology, organizations need to rethink their masculine culture to include women's communication strategies, treat them with equal opportunities and wages as their male counterparts, and not allow overt or covert gender discrimination to take place. An egalitarian and mutually respectful and supportive organizational workplace culture is significant because Hatchell and Aveling reveal that the
women in their study felt that they had little or no choice but to leave workplaces that denigrated them as scientists and as females (371). The retention of females in these male-dominated sciences fields may also participate in encouraging women to enter these fields. If women see other women entering and staying in the field, they may be more likely to do the same.

Gender bias has much to do with the organizational structure and normatives of the workplace. People rely on cognitive schemas in order to process information, and gender stereotypes act as information short-cuts used to process information quickly, as well as which to base future experiences and expectations. When relying on gender bias and sexist attitudes, whether consciously or unconsciously, the organizational structure of a workplace can favor one gender over the other, giving power to the dominant gender, and allow gender discrimination to become a norm. Organizations, and workplaces in particular, are fundamental to the allocation of societal rewards and stratification among social groups, declare Kevin Stainback, Thomas N. Ratliff, and Vincent J. Roscigno, in "The Context Of Workplace Sex Discrimination: Sex Composition, Workplace Culture And Relative Power" (1165). Because traditional gender stereotypes render men as the dominant gender, outnumbering women in the workforce, as well as typically holding positions of higher-power and status than women, organizational structures and cultures have become masculine and thereby have negative impacts on women's competition for advancements and experiences of gender discrimination. Stainback, Ratliff, and Roscigno build on Hatchell and Aveling's evidence of gender bias in the workplace due to the masculinity of the organizational culture. Stainback, Ratliff, and Roscigno explain that schemas are grounded in culture and that gender stereotypes and patriarchal biases are reinforced via institutions, interactions, the media, and gendered patterns of socialization. The process of social
categorization involves taking information in particular social settings, such as the workplace, and constructing cognitive schemas for application for future experiences and actions. As social actors categorize themselves in the social and cultural context of workplace organizations, they position themselves according to their cognitive schemas. When males, in their masculine organizational culture, act on gender bias as a schema for their behavior, women may be the victims of gender discrimination. Stainback, Ratliff, and Roscigno state that whether intentional or not, both automatic and deliberative cognitions are conditioned and given meaning by the culture within which they emerge (1166).

Because organizations and workplaces are contextual arenas within which sex categorizations can be enacted and differential treatment may manifest, Stainback, Ratliff, and Roscigno find it necessary to study individuals’ experiences with gender discrimination. Given women's under-representation in the fields of science, engineering, and technology, as well as these fields being a mostly masculine organizational culture, as supported by Hatchell and Aveling, women become an easy target for gender discrimination as men are the dominant group and hold the most power. Sex composition can influence the likely experience of sex discrimination in two important ways: One, by inducing a sense of threat and competition between status groups once a particular compositional threshold is reached, or two, by creating visible tokens in a given workplace that are easily targeted for abuse and hostilities (Stainback, Ratliff, and Roscigno 1167). In the sciences field, men outnumber women and become the dominant group, thereby feel more powerful due to their sheer numbers, as well as their gender stereotypical higher-status than women. Because women are the minority group, or as Hatchell and Aveling describe, the gendered other, they become the victims of gender discrimination.

Tannen explains how women become the gendered other, minority group because men are socialized to strive for leadership and power in group organizations. Furthermore, as more women enter careers and fields that have typically been only male-occupied, the majority group feels increasingly threatened and often acts accordingly to protect advantages. The majority group, males, may discriminate against women in order to preserve their dominance and power. As Hatchell and Aveling demonstrate, when the workplace culture supports masculine normatives, women receive gender discrimination due to the behaviors and implications for conduct men learn as a result of their socialization into the organization. Stainback, Ratliff, and Roscigno state that behavioral meanings emerging during social interactions must be consonant with the norms and values of particular groups (1169). In addition, when the workplace culture supports such covert gender discrimination that Hatchell and Aveling describe women scientists receive, and coincidently when women professionals disregard gender discrimination as corresponding with being a professional, men perceive their covert discrimination as normal and accepted workplace practices. Dissonant actions relative to workplace culture and normative expectations, in contrast, arguably result in tension-tension between coworkers and/or with supervisors (Stainback, Ratliff, and Roscigno 1169). However, Stainback, Ratliff, and Roscigno also mention how work environments with supportive cultures and histories are likely to reduce the likelihood that workers will interpret work-related experiences and tensions as sex discrimination (1169).

Sex-role stereotypes segregate men and women into different occupations and careers that are gender appropriate and accepted in society. Males have typically dominated the workforce and have held higher-status positions than females. Women, stemming from their
reproductive capabilities, have typically held lower-status, domestic positions. Males have come to be perceived as the "ideal" worker-one who has no responsibilities that might take his focus away from his work - such as familial responsibilities. Because women are more likely to have familial obligations, they have also been the victim of gender discrimination when employers and organizations perceive them as not committed to their work. Stainback, Ratliff, and Roscigno express that although work-family conflict and sex discrimination are different experiential outcomes, to be sure, there is significant sex-based discrimination linked explicitly to parenting, motherhood, and how such obligations are perceived by employers (1169). Women may not be hired, not promoted, or worse, fired due to pregnancy. In addition, mothers may receive lower wages. Stainback, Ratliff, and Roscigno argue that in effect, it is largely about employers' perceptions of what makes a good employee and stereotypical assumptions of "dependability" (1169). In contrast to a masculine organizational structure, workplaces with supportive work-family environments, which embrace equal opportunity, are more tolerant of work-family balance, and as a result, women are less likely to experience gender discrimination.

In order to demonstrate that gender bias is a common workplace norm, in all occupational areas and disciplines, predominantly in masculine organizational structures, Stainback, Ratliff, and Roscigno analyze a random sample size of 2,555 male and female phone interviews, from the 2002 National Study of the Changing Workforce. According to the data, Stainback, Ratliff, and Roscigno indicate that women are more than twice as likely to report experiencing sex discrimination relative to men (1175). Consistent with the assumption that the majority group is the dominant group who holds the power, respondents are less likely to experience sex discrimination after a majority threshold is eclipsed (Stainback, Ratliff, and Roscigno 1176).

This evidence explains why women, who are outnumbered by men in most workplaces, experience more gender discrimination than men. In addition, Stainback, Ratliff, and Roscigno also express that larger organizations bolstered the experiences of sex discrimination. In such workplaces, given the sheer larger numbers, there may simply be more potential perpetratorsperpetrators who, in the face of larger numbers of employees, may feel shielded by anonymity and from direct, ongoing supervision (Stainback, Ratliff, and Roscigno 1177). In addition, larger organizational structures usually have a human resources division that practices diversity training and therefore, more employees would be sensitive to recognizing such covert gender discrimination that Hatchell and Aveling describe. Women may be more willing to initiate legal ramifications when they perceive such covert behavior as unfair workplace conduct.

The women managers, in Stainback, Ratliff, and Roscigno's study, report greater instances of sex discrimination on their jobs compared to women in non-managerial jobs (1179). This fact demonstrates that women experience sex discrimination both when they are a part of the minority, female group, as well as when they are a part of the majority, dominant, male group. Stainback, Ratliff, and Roscigno state, "Notable in this regard is that women are most likely to experience sex discrimination when occupying both token jobs (defined as less than $25 \%$ women) and jobs where women were approaching men's majority status (25-49.99\% women)" (1181). Women in higher-status, leadership positions may experience more gender discrimination because when females hold a position of power, they are perceived negatively by both male and female peers. Male peers perceive the woman as contradicting her weak and submissive gender stereotype, and female peers feel that the woman is trying to appear authoritative and act outside of her feminine qualities of equality and congeniality. Women who
were more masculine were treated with disdain and rarely helped or made to feel a part of the group, leading to isolation (Stainback, Ratliff, and Roscigno 1183). Tannen regards that women who refuse to take a subordinate role, essentially, those who do not fit their stereotypical images of self-deprecating femininity, are judged negatively. A woman who is simply trying to be appropriately feminine in her manner is seen as submissive, and a woman who is not is seen as dominating is reviled for it (Tannen 200). Conversely, women who were perceived as more feminine tended to experience discrimination in terms of both sexual harassment and paternalism (Stainback, Ratliff, and Roscigno 1183). Stainback, Ratliff, and Roscigno also attribute this as a function of a female manager's relative power threat to men, the fact that a female manager likely has more education and knowledge of legal rights pertaining to sex discrimination, or a combination of both (1182).

By examining the organizational structure, sex composition, and relative power of majority and minority groups, Stainback, Ratliff, and Roscigno’s data provide significant implications for the future of women entering the workforce and competing against men for positions of authority, as well as for typical masculine occupations (science, engineering, and technology, etc.). If organizational cultures are to remain masculine, as Moore et al. propose the ICT field will, women may continue to experience gender discrimination and may not receive the proper recognition for their work, accomplishments, or leadership capabilities. Women may be discouraged from entering the sciences fields and may adopt their gender stereotypical behaviors, roles, and prearranged career fields. This is most concerning for the field of technical communication because it already lacks a female voice and females’ people-oriented and collaborative techniques. In addition, as the workplace culture supports such covert gender
discrimination, as Hatchell and Aveling also emphasize, women already in the field may feel that they have no choice but the leave their positions and seek other employment-perhaps occupations that are sex-role segregated for their gender.

## Communication Writing Tasks

Members of society are socialized to believe the gender stereotypical images they view in the media and categorize males and females into the different gender roles prescribed for them. Gender stereotyping has limited females’ progress in the male-dominated workforce, as well as has hindered females from advancing and developing their careers. Deborah S. Bosley, in, "Feminist Theory, Audience, Analysis, and Verbal and Visual Representation in a Technical Communication Writing Task," agrees that gender differences in communication do, in fact, exist between males and females. Gender differences in communication content, style, and reciprocity may be the result of males and females being socialized to behave and act in certain ways based on the gender stereotypical images they see and hear in the media. Based on their psychological development, women may have embedded the myth that they are to be submissive, quiet, and more concerning of relationships than men, which promotes a very different communication method from men, who have developed an egocentric or autonomous sense of self. Bosley affirms that gender bias does have effects on women in the workforce; however, she also points out that there are certain characteristics that differ between males and females.

Because the technical communication field involves a great deal of writing, women’s unique communication strategies may prove beneficial and successful in the field. This fact is significant because, traditionally, women have been under-represented in the field of science and
technology and their documentation needs. Women's gender stereotype confines them to specific low-status, domestic occupations, such as nurse and secretary; therefore, women are not as likely to seek a technical communication career. In addition, Moore et al. indicate that the future of the ICT sector is predicted to remain masculine; thus, the technical communication field may remain in need of a female voice, as their affilitative and gentle communication strategies may be more accommodating to different audiences and would serve the technical communication field well. Bosley describes how females are socialized into the role of audience and would develop a capacity for attending to the needs of audience/others (298). Bosley explains that research into written language use by males and females indicates substantive differences in content, in approach, and in evaluation; however, little research on writing examines the relations among gender, writers, and audience (295). Because females are socialized into the role of audience, we would expect that they also develop a capacity for attending to the needs of audience/others in writing situations as well (Bosley 298). While women use language to strengthen connections with others, males use language to solve problems. These gender bias and stereotypes have become embedded into society's social consciousness and scholars have only focused on these characteristics when reporting on the writing of males and females. Bosely even states, "We must acknowledge that gender studies tend to find differences" (300). Bosley argues that when male and female technical communicators focus on the audience when writing technical documents, there will be minimal differences in the style, content, and approach of their written communication. Bosley states, "A technical writer's ability to create an effective, usable document is partially a result of his or her ability to focus both on the actual and on the implied readers" (296).

The success of a technical document often rests on its ability to align itself with the appropriate audience using the appropriate verbal and visual language (Bosley 296). Bosley analyzes whether gender is factor in how males and females created visual and verbal instructions relative to the needs of an audience (300). In contrast to previous findings regarding gender differences in communication, Bosley finds that both genders construct the visuals in similar ways relative to audience considerations (302). Bosley's research demonstrates that although males and females have different communication strategies, female subjects did not exhibit more of an awareness of audience than did the male subjects (Bosley 302). In terms of employment, females would be as capable and as successful as a technical communicator as their male counterparts, perhaps more so due to their concern for their audience and understanding their feelings and response to what is communicated. Bosley describes how the current psychological theory predicts that females are more concerned with the self-in-relationship and with interdependence and that such behavior may be situational (302 \& 303). The expectation that women will be better able to connect with their audience and understand their needs and reactions prompts the belief that women may be better able to accommodate and alter their writing for different audiences and situations. Women's writing incorporates different attitudes of cooperation, negotiation, and community, Bosley insists (298). Organizations and businesses would be better off to recruit and retain more women technical communicators. Because females are conditioned to believe that they underperform compared to males, gender-related differences that appear in research may be the result of the female respondents' own expectations of their abilities. Bosley’s article illustrates how gender bias in technical communication hinders females' success and potential in their career, perhaps by rendering them to underestimate their
abilities. Bosley's research corresponds to Tannen's text regarding how women refrain from selfpromoting or taking the credit for their accomplishments to maintain a congenial group environment. Women who are socialized to believe that they are not capable of what has typically been associated with a man's work will not strive for careers in the field of technical communication. Furthermore, women's denial of their accomplishments or abilities may also obstruct them from advancing in their career and being prominent professional members in the ICT field.

The evidence that I have provided in this chapter proves that women have faced challenges, problems, and limitations in the workplace due to gender bias. Women are perceived negatively both when displaying masculine characteristics, in order to conform to the maledominated organizational cultures of most workplaces, but also when maintaining their femininity and affilitative and congenial characteristics. Furthermore, women have been the victims of both overt and covert gender discrimination in the workplace, which has come to be perceived as a normative of the masculine workplace culture, but also as something professional women must endure. Women have even been forced to leave their employment when faced with consistent gender discrimination and having no legal aid. Women's negative gender stereotype, perpetuated and reinforced in the media, has disqualified their qualifications, competence, and capabilities in the workplace, limiting them in their careers.

## CHAPTER 4: WOMEN'S NEGATIVE EVALUATION IN THE WORKFORCE AND CAREER ROLES

There are those who claim that what's really important is economic issues like the salary gap-equal pay for equal work (Tannen 30). Why do women still make less than men, on the average, and why, if efforts are made to equalize salaries in a given setting, is it only a few years before the women's pay once again falls behind? (Tannen 30).

This chapter demonstrates that in the late twentieth century and early twenty-first century, women still remain underpaid and undervalued in the workforce compared to their male counterparts. This chapter explains how women are still perceived according to their gender stereotype and are ascribed to be in lower-status and lower-paid positions than men. Sex-role stereotyping segregates the type and accompanying pay associated with the careers and occupations that men and women enter and are perceived to perform better in. Women today, although many now entering more masculine positions, are still undervalued in organizations and many still ascribe themselves to be only able to enter specific female gender stereotypical positions. This chapter will exhibit many of the negative and destructive effects that gender bias has on women in the workplace.

## Sex-role stereotypes and Salary Gap

Historically, women have been restricted to domestic roles based on their reproductive responsibilities. Women took care of the family and household; whereas men held the occupations that provided the financial support of the family. The continued portrayal of women, by the media, in their gender stereotypical domestic and low-status position has enabled this perception of women to become standard in the workplace. Employers rely on gender
stereotypes as information short-cuts to make evaluations and assumptions of others-the individuals they hire, the positions they place male and female employees in, as well as the compensation for these individuals. As a result of women's gender stereotype, pervasive in the media, employers assign women to lower-paid and lower-status positions. Many jobs traditionally identified as women's work continue to pay lower salaries than those historically classified as jobs for men ("‘Women’s Annual Earnings Are Substantially Lower"). For instance, according to the U.S. Census Bureau, in the year 2000, the average full-time male earned 641 dollars a week (Table 648: Full-Time Wage and Salary Workers—Number and Earnings: 2000 to 2010). In the year 2000, the average full-time female worker only earned 493 dollars a week (Table 648: Full-Time Wage and Salary Workers—Number and Earnings: 2000 to 2010). Jump ahead to the year 2010, and the average full-time male in the workforce earned 824 dollars per week; their female counterpart only earned 669 dollars per week (Table 648: Full-Time Wage and Salary Workers—Number and Earnings: 2000 to 2010). It may well be that some people have a gut-level, not-logically-thought-out sense that women should get less, either because they are expected to have lower abilities, or because they do not display their abilities, or because their rank and salaries are being measured against those of other women rather than their male peers (Tannen 32). In addition, there may also be an unarticulated sense and assumption that women need less, whether an individual woman is self-supporting or the main or sole support of her family, the image of women does not readily suggest "breadwinner." All of this is to say that results like the salary gap may result from a range of factors, including ways of speaking, as well as preconceptions about women and men (Tannen 32).

Gender bias against women has negative impacts over the roles that they fill, as well as their corresponding earnings. Women have been undervalued as a professional and have not been perceived as capable of typical male roles. In addition, women who do succeed at achieving positions that are typically reserved for men are still making less than their male counterparts. The social role theory holds that the male gender stereotype is associated with wealth, in contrast to women's negative gender stereotype that associates their labor with insignificance. Melissa J. Williams, Elizabeth Levy Paluck, and Julie Spencer-Rodgers, state in, "The Masculinity Of Money: Automatic Stereotypes Predict Gender Differences In Estimated Salaries," that the differential valuing of men and women has a long history (7). The differential association of pay between genders is a significant issue because as Allen recognizes, "One resource that has been traditionally underused, or even ignored, is women" (371). Allen agrees that there has been a growing number of opportunities opening for women; however, the number is still unsatisfactory (371). Correspondingly, Williams, Paluck, and Spencer-Rodgers recognize that the gender gap in wages remains one of the most intractable inequities faced by American women (7). Williams, Paluck, and Spencer-Rodgers argue that observations of men as higher earners than women has led to a stereotype that associates men (more than women) with wealth, and this stereotype itself may serve to perpetuate the wage gap at both conscious and nonconscious levels (7).

The disparity between the earnings of men and women can be accounted for from a variety of reasons. Joel T. Nadler explains that a sizable proportion of variance in men and women's earnings suggests that discrimination or bias is a plausible explanation for wage disparities (2). Women's gender stereotype has traditionally constrained them to domestic and low-status occupations illustrated by the over-concentration of women in the service sector, as
well as the persistence of care-giving duties for employed women (Williams, Paluck, and Spencer-Rodgers 7). Twenty years after women began receiving M.B.A.’s and entering businesses where they had not been before, they still make up only a small percentage of higherlevel executives (Tannen 130). One respondent from the "Wyndham Vacation Ownership Technical Communications Department Survey" even indicates that the very top executive positions in the company are held by men, "We have many high-level positions held by women, but the very top are held by men." A study by Lea Stewart revealed that women are often given different task assignments than men with similar positions and qualifications, and the ones they are given are not those that lead to advancement (Tannen 158). Furthermore, the segregation of men and women into their corresponding gender stereotypical fields of study, such as men in the science and technology field and women in the education and artistic fields, also contributes to the wage gap. Durack explains that traditionally, women were not allowed to be educated in the fields of science and technology, and their areas of work were not considered to be real occupations that earned money. There has been a general perception that women are not significant originators of technical, scientific, or medical achievement and that women's work is not sufficiently important to warrant study of their supporting texts (Durack 37). Historically, women have been bound by their reproductive capabilities. Scientific inquiry and technological innovation have been primarily the work of men; therefore, the contributions of women have consequently been subsumed, lost, or overlooked (Durack 36). The same respondent from the "Wyndham Vacation Ownership Technical Communications Department Survey" also states, "I feel in IT, in general, there are more men than women."

In today's society, the media communicates and reinforces the insignificant status of women by depicting them according to their gender stereotype—in only "acceptable" areas as art, music, dance, writing, and cooking. "Real" work is done by men. Consequently, women's capabilities are still defined by their female gender stereotype and are underestimated, unappreciated, and unrecognized in the workplace. In addition, high-level positions usually include management and supervisory positions, those that society finds men more qualified for and have been traditionally occupied by men, which earn higher salaries. Nadler considers how the small additive effects of discriminatory stereotypes may well explain gender-based pay and position inequity in the workforce (61).

Gender bias in any one managerial decision may only account for a very small amount of the variance, but these differences accumulate over individual's careers (Nadler 61). Tannen mentions three scholars: Barda Bowman, Beatrice Worthy, and Stephen Grayser, who show that managers believe women just don't have the decision making skills or aggressiveness needed to succeed in managerial positions (158). Women’s weak and submissive gender stereotype hinders them from obtaining these positions; thereby, they do not get paid the higher salaries. A one percent bias favoring men over women at each level of a company's promotion decisions explains the "real world" gender disparity and glass ceiling effects present in businesses today (Nadler 61). Williams, Paluck, and Spencer-Rodgers concur that the social role theory states that stereotypical descriptions of men and women emerge from repeated observations of men and women in different social roles (8). Because these variables only account for macro-level rationales for the wage gap, Williams, Paluck, and Spencer-Rodgers analyze the micro-level reasons that females are typically underpaid, even though there is a growing population of
females in the professional workforce. To reveal why men are assumed to earn more than women, Williams, Paluck, and Spencer-Rodgers argue that salary estimation was mediated by the unconscious gender stereotype that links men with wealth. The social role theory linking men with wealth emerged from repeated observations of men occupying breadwinning roles, holding the highest-earning occupations, and managing household income at a greater frequency than women (Williams, Paluck, and Spencer-Rodgers 8). As a result, the guiding salary estimates of people can perpetuate real gender salary differences. Williams, Paluck, and Spencer-Rodgers suggest that people may assign higher salaries to men than women based on automatic stereotypic associations; that is, wealth may belong to a general stereotype of men, but not of women (9). In addition, Williams, Paluck, and Spencer-Rodgers also propose that the salary estimation effect, in which men are assumed to earn more than women, has the potential to become self-fulfilling and thus perpetuate the national wage gap (13). When people rely on their gender bias to assume, with or without awareness, that men make more than women, and this is reinforced in reality by the actuality of a real national wage gap between men and women, this perpetuates the actual disparity in earnings between men and women because more employers and job-hirers will continue to pay men more than women. The researchers' results reveal that automatic associations between maleness and wealth are the best predictor of the salary estimation effect. Williams, Paluck, and Spencer-Rodgers state that most people do not appear to deliberately apply it to their estimates of male and female salaries (17). Automatic gender bias can be severely pernicious for women in the workplace when employers who, even when consciously seeking to be egalitarian, may in fact be gender biased in their hiring and compensation decisions (Williams, Paluck, and Spencer-Rodgers 17).

Real-world gender disparities are caused by the stereotypic associations in the minds of individual employers who offer higher salaries to men than women. In addition, this contributes to the self-perpetuating or self-fulfilling effect when female employees, who associate wealth more strongly with men than with women, do not expect or demand salaries equal to those of their male counterparts. It seems that women may have adopted and accepted their female gender stereotype and do not even strive to surmount their low-status position in society. Nadler indicates that processes such as job segregation, prescriptive and descriptive stereotype bias, and disparity in opportunities all restrict women's forward career advancement (61). Williams, Paluck, and Spencer-Rodgers conclude that the salary estimation effect is caused by the combination of an implicit link between maleness and wealth and repeated observations of men more than women occupying paid employment outside the home and earning higher salaries than women.

## Technical Communication Salary Gap

Just as Williams, Paluck, and Spencer-Rodgers point out the salary discrepancy between men and women, this national wage gap is consistent in the field of technical communication. The female gender stereotype insists that women are better in the arts and writing than men are, and men are better in the fields of science and technology. However, Allen points out a survey conducted by the Society for Technical Communication that revealed that over a fifteen-year period, the number of female technical communicators had increased: fifty-four percent of women in 1985, compared to only twenty percent of women in 1970 (373). Allen contends that this trend both parallels women's gender stereotype, but attempts to circumvent it, as well. Allen states that females are still being socialized and educated to accept and prefer writing (English
studies) over math and science, but at the same time, this preference is also expanding to include writing about science and technology (373). A "Wyndham Vacation Ownership Technical Communications Department Survey" respondent agrees, "In general, technical writers are usually female; in the past thirteen years, at four different companies, I've only worked with four male writers." Furthermore, Allen also highlights how women are moving into traditional male occupations (373).

Although women are now entering male occupations, they are still being valued, and correspondingly compensated, according to their gender stereotype. The surveys show that although women are working as technical communicators, their salaries remain less than their male counterparts’ salaries (Allen 373). In 1985, the average salary was 27,500 dollars for women, compared to 34,000 dollars for men in the field of technical communication (Allen 373). This trend continued into the year 2010 with males in management and professional occupations earning an average of 1,256 dollars a week ("Household Data Annual Averages 39. Median Weekly Earnings of Full-time Wage and Salary Workers by Detailed Occupation and Sex"). In the year 2010, women managers and professionals earned only 923 dollars a week ("Household Data Annual Averages 39. Median Weekly Earnings of Full-time Wage and Salary Workers by Detailed Occupation and Sex"). Even more concerning is the fact that as a profession, the feminization of technical communication had a slower rise of salaries in comparison to the salaries of women in the fields of engineering, nursing, teaching, and social work (Allen 373 \& 374). Allen emphasizes how studies in education have revealed that women tend to be better writers than males (374). Why then, if promotions and salaries reflect performance, are women still getting paid less than men in the field of technical communication, where writing is a large
factor determining success? In a role where women may perform better than men and still remain underpaid compared to their male peers is an indication of Williams, Paluck, and SpencerRodgers's salary estimation effect and social role theory. Given that men are expected to make more than women, this occurs in reality. Allen asserts how traditions-such as valuing seniority—favor men (374). Therefore, although they may not deserve it, the male gender stereotype prescribes them to make more than women, and in contrast, women's gender stereotype deems them to make less than men.

## Encouraging Women to Enter Science, Engineering, and Technology

While the growing number of women in the workplace has stimulated many studies in its effects on businesses and economics, especially on the effects of women in management, there have been very few specifically studying women in the field of technical communication. In order to rectify this absence, and to bring an awareness of how women are affected by gender bias in technical communication, Allen highlights the kinds of changes that practitioners, researchers, and teachers should anticipate to occur as women enter the technical communication workplace and practice. Florence P. Haseltine exposes the gender bias and inequalities the women faculty faced in the School of Science, at the Massachusetts Institute of Technology (MIT). Haseltine, like Allen, proposes changes for the future that would encourage women to enter this male-dominated field. It is no wonder that the particular area of study that women face obvious discrimination is one of the many science and technology areas-traditional masculine areas of study. Haseltine reveals that salary inequities pertaining to the women faculty were identified, a finding that is the most obvious (429). Beyond the blatant difference in the salaries of the male faculty and the female faculty are the emotional impacts that gender bias and
discrimination have on the women faculty. When women feel underappreciated and unvalued in their occupational roles, it has severe implications for the future of the field of science and technology in encouraging women to participate and enter in the field. Haseltine declares that past inequities negatively affect not only those who were directly hurt, but also the coming generations (430). Haseltine quotes a note from the MIT Committee's Report regarding the female inequalities and the proposed solutions: This collaboration of faculty and administration could serve as a model for increasing the participation of women...on the faculty of other Schools of MIT (430). Perhaps by recognizing females’ contributions to the fields of science and technology and acknowledging their equal capabilities and wages as their male counterparts, this may reduce the under-representation of women in the field of science and technology and encourage future female technical communicators. In fact, the MIT reported a comment from a woman in the School of Science after implementations were made to have the female faculty more equally compensated for their positions in comparison to the males on the faculty. The woman who commented felt she had finally been recognized more appropriately for her work. She stated that she even felt better about getting up each day (Haseltine 429). Haseltine counters that salary adjustments at least give the affected faculty members some tangible recognition of their work and contributions, which extends into the future (429).

## Gender Stereotypes and Sex-role Stereotyped Occupations

The low salary estimates for women run parallel to the gender-segregation and stereotypical occupational roles men and women occupy. At a young age, boys and girls learn their specific gender norms and roles based on what they see in the media, as well as what they see in their everyday lives. Occupations in the United States, as well as other countries, remain
sex-segregated. As children age, they perceive and prefer occupations that are clearly sex-role stereotyped and considered gender appropriate based on the domination of their own sex in those careers. Gender-segregation of careers and occupations has a self-perpetuating effect. Children are socialized into their own identity, but their identity is formed based on gender stereotypes and the occupations, behaviors, and characteristics that are attributed to and acceptable for their gender. As adults, people choose the appropriate, sex-role stereotyped careers that they feel they have more knowledge in and are expected of them-thus perpetuating the domination of either gender into the specific careers that are assumed to be either masculine or feminine. Sex-role stereotypes are the result of the segregation of men and women into different occupations and social roles. Four of the five respondents from the "Wyndham Vacation Ownership Technical Communications Department Survey" indicate that they find occupational roles to be sex-role stereotyped with women occupying careers such as secretary, administrator, and homemaker and men occupying careers such as sales, information technology, and sports.

People make assumptions about individuals based on their beliefs concerning traits they have associated with a social category of which the target individual is a member (Nadler 7). Nadler also explains how stereotypes affect how individuals perceive and feel about themselves (7). Thus, men and women are socialized into their prescribed gender categories and ascribed characteristics, behaviors, and appropriate occupations and careers. Linda Miller and Rowena Hayward claim that the majority of such segregation appears to arise from the expectations and beliefs prevalent in a society regarding the different qualities that the two sexes bring to their work (71). People believe that one sex will perform better than the other in a particular job, therefore, ascribe that job to be appropriate for that gender. The occurrence of sex-segregated
occupations leads to the tendency for individuals to prefer what they see as gender-appropriate jobs, which serves to perpetuate such segregation. Furthermore, gender bias is often evoked implicitly or unconsciously, thus increasing the salience of gender stereotypes that categorize people into different occupational roles and positions. In other words, occupational segregation serves to perpetuate occupational stereotypes, and vice versa (Miller and Hayward 71).

Traditionally, men hold higher-status and higher-paid careers than women. Miller and Hayward state that despite the development of more liberal views regarding which sex should perform various jobs, when asked about the jobs they personally would like to do when older, most children and young people continue to prefer gender-appropriate jobs (69). Females typically hold occupations such as secretary, hairdresser, school teacher, and males are more inclined to prefer and go into careers such as police officer, scientist, and air traffic controller. Miller and Hayward add that occupational sex-role stereotypes are formed early on (68). Tannen even insists that children seem to pick up norms as surly as adults do (116). Tannen describes a young boy's reaction to his doctor mother's profession at a medical school, "You're not a doctor, Mommy. You're a nurse" (Tannen 116). While occupational sex-role stereotypes primarily are beliefs concerning which sex should perform certain jobs, occupational gender segregation is the extent to which the workforce within an occupation is actually segregated along gender lines-in other words, performed largely by either females or males (Miller and Hayward 70). Nadler describes that implicit bias refers to a cognitive preference for one category over another. Gender bias impacts organizational decision making regarding women-it takes longer to associate females with managerial roles. Furthermore, sexual harassment also plays a role in limiting women's advancement by creating a hostile work environment (Nadler 2).

The current state of our workforce blatantly illustrates that gender-segregation is alive and well. As children grow to adulthood and become a part of the workforce, they cannot be held at fault for perceiving reality to be as it is: men and women segregated into different careers and occupations, because this is what they have seen, and this is what they have learned. Children will adopt their gender appropriate identity which affects their career choices, perceptions, and knowledge in certain areas. In fact, the extent to which occupations are seen as sex-stereotypes is one of the most influential factors affecting individuals’ choices (Miller and Hayward 68). Miller and Hayward remark that children gradually integrate information about the ability required to perform various jobs, the status of those jobs, and the people (men or women) who would typically perform them (69). Negative stereotypes held against an individual not only affect the evaluations of others, they also affect self-evaluations and self-defeating behaviors, Nadler explains (8). Women may demote themselves to the specific lower-status and lower-paid careers that they believe they are only capable of occupying. At first, the range of jobs women will consider increases, but then the salience of their gender reduces their potential choices. The difficulty with this theory for young women is that there are few high-status, gender-appropriate occupations (Miller and Hayward 69). Miller and Hayward find that as more women enter the workforce and aspire to more high-status occupations, which entails aspiring for traditional masculine positions, females become less stereotypical in their choice of jobs with age, while boys became more stereotypical in their choices (69 \& 70). Furthermore, because men have typically dominated the workforce, they have been perceived as the ideal worker-one whose focus will not be taken off of their work due to familial obligations or reproductive responsibilities. As a result, males have been perceived to be more productive. Nadler agrees,
productivity has been suggested as a possible reason for pay inequity (65). Male's self-promoting characteristics also prompts them to highlight their accomplishments and take credit for work; thereby, recognition is received through promotions, advancements, and raises. Men tend to gravitate to higher visibility jobs, are more devoted to work, and more willing to travel and forgo family obligations in favor of work (Nadler 65). Nadler argues that these traits lead men to actually be more productive, explaining pay and promotion discrepancies between the genders. In addition, men resist obtaining gender stereotypical female occupations and roles. Moving into a female area of work would mean a male would have to lower their employment status.

Sex-role stereotyping and gender segregation of occupations and earnings has serious consequences and creates problems for women in the workforce. If women continue to choose the low-status and low-paid careers they assume are appropriately suited for females and that they have the knowledge for, the fields of science, technology, and technical communication will continue to lack a female voice. Additionally, the national wage gap will continue to have males come out on the top. Miller and Hayward contend that the impact of sex-role stereotyping and segregation on children and young people's job preferences; the way in which individuals' stereotypes and preferences develop and change with age; and the relationship between sex-role stereotyping and gender segregation of jobs all negatively affect women in the workplace (68). Because the information and communications technology sector (ICT) is a growing new occupational field, Miller and Hayward further assess young peoples' knowledge of the new jobs and the extent to which these jobs were seen as gender-segregated and stereotyped. While this is a fairly new sector of occupations, especially in the late twentieth century and early twenty-first century with the advancement of technology, women still remain far below men entering this
field. This of significant consideration for females to be aware of, as well as employers, because despite anti-discrimination laws and the increasing number of females entering the workforce, females still hold a gender-stereotypical viewpoint regarding which careers they prefer and are suitable for them to enter. Gender disparity, although decreasing, is still a reality of the modern workplace (Nadler 1). Miller and Hayward emphasize that the pattern of preferences expressed by girls in the late 1990s has changed little from those reported in the 1960s (69). Nadler concurs, "Although women make up half the workforce, there are very few at the top levels of corporate America" (1). Females still seem to prefer only those occupations deemed genderappropriate. Perhaps this stems from history, when men and women were educated in different areas, as Durack reports how the technical and mathematical training necessary to build models of invention and patent them was not available to women because of gender-segregated education (38). Miller and Hayward also attribute the lack of women entering education and employment in the ICT sector to the fact that women are less likely to gain experience with computers at a young age (72). While girls play with dolls, boys play video games on computers, therefore, have more knowledge and experience with computers. In addition, the perception that females are not knowledgeable or capable of ICT occupations may also be attributed to the general societal perception of the "male scientist." Traditionally, the field of science, engineering, and technology has been a male-dominated and masculine career.

Miller and Hayward's examination of the influence of occupational sex-role stereotyping and perceived occupational gender segregation on job preference in pupils between the ages of fourteen to eighteen demonstrates results concurrent with past research, as well as today's exhibition of gender-segregation in occupations. Miller and Hayward find that the occupations
they asked children about were viewed as strongly sex-stereotyped (82). Highest among the jobs rated as strongly masculine sex-stereotyped were software engineer, computer engineer, and webmaster; these were, unsurprisingly, most strongly preferred by males. Among girls, the jobs most strongly stereotyped as female remained the most popular: secretary, physiotherapist, hairdresser, and occupational therapist (Miller and Hayward 82). Miller and Hayward also reveal that most of the twenty-three jobs they asked the children about were perceived to be jobs performed by only one sex. Miller and Hayward also find that preference for particular occupations was more strongly correlated with the extent to which the job was perceived as being congruently gender-segregated (85). Boys preferred jobs that they believed were, and should be, performed by males; girls preferred jobs that they believed were, and should be, performed by females (Miller and Hayward 85). However, Miller and Hayward are quick to point out that girls’ stereotypical preference for occupations weakened with age (85). The data suggest that by the time girls reach the sixth form, they have become much more liberal, not just in their views of jobs, but in the extent to which they find these jobs potentially attractive (Miller and Hayward 85). The suggestion that women become less constrained to gender stereotypical careers and occupations with age may indicate a hopeful future for women in the ICT sector and for higher-status occupations that earn a higher salary. If women can consider aspiring to careers that are outside their traditional sex-typed, gender stereotypical occupations, perhaps they might seek the education necessary for these positions and then enter these fields. That with said, Miller and Hayward's data also suggest that while perceptions of occupational gender stereotyping change with age, perceptions of the extent to which an occupation is gendersegregated do not (86). Miller and Hayward argue that stereotypes are networks of beliefs and
subject to revision as the child's world view matures; estimates of gender segregation are based on fairly accurate perceptions of the working environment and therefore, do not change unless the environment itself changes (86). In parallel, Miller and Hayward indicate that although girls believe that most jobs should be done by either sex, they do not find the atypical jobs particularly attractive, at least until they reach the older age groups (87). On the contrary, boys retain their preference for segregated, masculine jobs (Miller and Hayward 87).

Miller and Hayward's results have significant insight into the emerging field of science and technology and the inclusion of women in this field: The data show that new and emerging jobs in male-dominated sectors, such as information technology (IT), have rapidly become identified as "masculine" jobs in which the majority of the workforce is male (87). Miller and Hayward's claim that jobs in the IT field are becoming sex-role stereotyped as masculine jobs suggests that the ICT sector, as gender stereotyping would have it, continues to include jobs that are more attractive to boys and significantly less attractive to girls. Despite the increase access to computers in schools, and both girls and boys learning how to use computers and the Internet, girls still do not view jobs using computers as gender appropriate or attractive. Miller and Hayward conclude by asking the question: If young people are drawn to jobs in which they see their own sex predominating, how can we promote the attractiveness of those jobs, while, at the same time, trying to overcome stereotypes regarding the types of individuals who can do these jobs? (Miller and Hayward 88). The question of how gender bias can be reduced in the workplace is a question that has not had a solution for centuries, as women are still negatively affected by their gender stereotype. Miller and Hayward note the influence the media has on young people's awareness. How best to raise young people's awareness of a wider range of jobs
will need to be a central research issue for careers theorists, professional associations, and teachers in the future, if current patterns of segregation are to be challenged (Miller and Hayward 88). In order for our society to change, the media must change to promote a more equal depiction and portrayal of men and women into equal representation of men and women in all occupations and career roles.

## Double Standard Gender Stereotype

Miller and Hayward report on how society has sex-segregated men and women into specific occupational roles and careers that their gender stereotype prescribes them to be in. Men and women are perceived to be better in certain positions. The problem with this gender segregation of career roles is that males have dominated the professional arena and have typically held higher-level and higher-paid positions. Nadler adds that gender bias is pervasive in our society based on expectations of people and occupations based on gender roles (54). This has led to the men as wealth stereotype that Williams, Paluck, and Spencer-Rodgers regard. In addition, the male and female gender stereotypes ascribe specific behaviors, characteristics, and communication strategies to each gender. Men are more aggressive, dominant, and competitive. Women, on the other hand, strive for egalitarian environments, are more concerned for others’ feelings, and use indirect communication styles. Women's gender stereotype, as well as their assumed roles and positions in the workplace, has limited them from being perceived as confident, competent, and able to perform in typically male, managerial positions. Stereotypes are built into one's cognitive schema from one's socialization and identity formation process. Stereotypes are information cues that people use in order to make judgments, evaluations, and decisions on how to act in situations. Nadler states that implicit measures examine automatic
processing that is not tied to purposeful practice, but built over a lifetime of stereotype reinforcement (15). Women trying to succeed in a masculine work role, such as upper management, will face obstacles based on their gender (Nadler 1). That with said, women who strive to use more aggressive approaches to negotiate their capabilities and conform to the male norms of a business or organization also receive negative evaluations. To be perceived as competent, women need to exhibit agentic behaviors, however doing so leads to a backlash where they are viewed as less communal and therefore, less likeable (Nadler 21).

Research illustrates that women who do not live up to others' expectations of their femininity and female gender stereotypical characteristics are also negatively impacted in the workplace. Nadler contends that both male and female gender roles can lead to discrimination when those roles are in conflict with expectations of social or work roles (1). That with said, gender bias against women is more pervasive and has deeper implications for women in the workforce. The bias measured by implicit measures is most likely formed through repetitive use of stereotypes to make judgments (Nadler 15). Men’s past experiences and socialization processes have instilled in them the notion that women are weaker and deemed to be in positions lower than men. In addition, the men as aggressive and agentic and women as nurturing and communal stereotypes offer prescriptions and descriptions of how each gender is supposed to be. Nader states that women can either confirm or validate cultural held stereotypes of how women should act or violate these same expectations (Nadler 17). Women who try to conform to the male-style organizational culture and portray typical masculine characteristics have been denied positions because they confound their female gender stereotype and conflict with employers' and job hirers' expectations. As mentioned in Chapter Three, Tyler and McCullough demonstrate
how women's communication of agentic characteristics received negative evaluations from job hirers. Tyler and McCullough regard the study of gender bias used to evaluate resumes an important research question because resumes determine whether an applicant is interviewed and because, in general, women suffer negative sanctions when their behavior violates stereotypic prescriptions (272). Women, who try to sidestep their gender stereotype and exhibit masculine characteristics in order to fit into the masculine culture of the workplace, may still receive negative evaluations when they do not meet the expectations of their employer or those that may hire them. One respondent from the "Wyndham Vacation Ownership Technical Communications Department Survey" states that in the workplace, men are portrayed at the head of the company and if a woman is, she is portrayed as "tough." Another "Wyndham Vacation Ownership Technical Communications Department Survey" respondent expresses how women’s gender stereotype may be portrayed as "bitchy." Women face a double standard in the workplace: women receive negative evaluations when both adopting their gender stereotype, as well as when portraying masculine characteristics. Either women face the problem of seeming unconfident and incapable of male's positions, or they are faulted for rejecting their femininity. Analogous to Williams, Paluck, and Spencer-Rodgers's and Miller and Hayward's description of how sex-role stereotyping ascribes women to lower-paid and lower-status occupations than men, sex-role stereotyping may also explain how employers assume women have and should portray communal characteristics, and when they do not, they are judged negatively. For example, women who draw attention to their accomplishments and self-promote may be perceived as deficient in social skills-the qualities that women are assumed to possess. Because resumes are
the initial self-presentation tool that job hirers review for hiring-related decisions, they offer a potential employee the chance to verbally communicate their identity and personal attributes.

Tyler and McCullough explain how stereotypes offer both prescriptive and descriptive standards, behaviors, and typical characteristics of group members. In brief, descriptive stereotypes describe what group members are typically like (women are gentle) (Tyler and McCullough 274). Prescriptive behavioral standards of group members must be upheld to avoid derision by the perceiver; for instance, women should be gentle. Nadler agrees, descriptive stereotypes reflect the beliefs or expectations about how people are; whereas, prescriptive stereotypes are expectations of how people ought to be (3). Gender stereotypes act as social norms for the gender appropriate behavior and characteristics that men and women should portray-they are like social rules. Those who do not meet the expectations of their perceiver, or in other words, do not portray the prescriptions and descriptions of their gender stereotype, face social ridicule and negative evaluations. Nadler regards that stereotype activations affect judgments, evaluations, and outcomes for the targets of negative stereotypes (5). This has severe implications and poses challenges for women in the workplace who strive to compete with men by conforming to their aggressive and competitive nature and communication strategies-they are perceived negatively, in violation of their gender stereotype of being communal, indirect, and gentle.

While it is worthwhile to study explicit gender bias, people may not be as willing to admit socially unacceptable attitudes or may alter their attitudes under experimental conditions; thus, it is perhaps more significant, accurate of reality, and practically applicable to study implicit gender bias, as they are more real to everyday stereotype use. Implicit measures infer
prejudice and bias by assessing the degree to which people automatically and unconsciously associate the target category with stereotypical or negative attributes (Nadler 13). Tyler and McCullough find that when women's resumes violate gender stereotypic prescriptions by communicating agentic rather than communal identity images, men evaluated them more negatively on hiring-related judgments (283). Women are usually the target of gender stereotypes, as women are typically the minority group in the workplace that is male-dominated. Men are the majority or dominant group. These findings are significant because it demonstrates that, despite the lack of face to face interaction, identity images are embedded within a resume that impact the job-hirer's evaluation of the individual. The current data also suggest an underlying factor that may help to explain the decision-making process involved in the prescreening of gender-identified resumes (Tyler and McCullough 283). The gender of the applicant mediated the employer's evaluation of agentic traits. Men, who are assumed to be aggressive, self-promoting, and dominant, are viewed less negatively when portraying these agentic traits than women. Put differently, when female applicants were perceived as agentic, they were viewed as less socially skilled and consequently were assessed more negatively than their male counterparts (Tyler and McCullough 283). Tyler and McCullough’s research proves that gender bias and sexist attitudes do promote problems and challenges for women in the workforce. Although done unconsciously, job interviewers may hold gender stereotypic belief patterns that do impact their evaluation and judgment of job applicants. Females may be perceived negatively when both adopting their "weak" gender stereotype and when conforming to male's dominant and agentic stereotype.

Consistent with the social role theory, Williams, Paluck, and Spencer-Rodgers argue that gender stereotypes segregate men and women into socially and culturally appropriate and acceptable occupations and roles; coinciding the observance of men and women in these roles, gender stereotypes are perpetuated and promoted. Nader also supports the social role theory stating that descriptive stereotypes indicate what a job or person is like and prescriptive stereotypes indicate what a job or person should be like (19). Role congruity theory predicts gender bias when women violate descriptive and/or prescriptive stereotypes (Nadler 19). Nadler provides evidentiary support for Tyler and McCullough’s demonstration of women receiving negative evaluations when portraying agentic-typical masculine traits. Nader agrees that disparate impact can result from violations of descriptive stereotypes and results in hiring and promotion practices that are biased against individuals based on group membership (20). Women have faced significant challenges in the workplace, being the target of prejudicial hiring, compensation, evaluation, and promotion decisions. Women are hired and promoted less often when a work role is seen as masculine (Nadler 20). Nadler analyzes the role congruity theory by testing implicit measures of automatic endorsement of traditional women's roles and traits associated with management ( $70 \& 71$ ). After watching a video tape of a man or woman interviewing for a job, displaying either agentic or communal traits, participants then rated the interviewee on competence, likeliness to hire, agentic traits, communal traits, and likability (explicit measures) (Nadler 71). Additionally, participants completed an implicit measure (IAT) using agentic and communal words matched with male and female names, along with explicit measures of sexism (Nadler 71). Nadler’s study validates Tyler and McCullough’s results in finding that there is a significant difference with men scoring higher than women on the scale of
hostile sexism (85). Nader's results also indicate that men scored higher on the gender authority (GAM) than women (85). The interviewees who negotiated were rated higher on agentic traits and those who were rated lower in the negotiation condition were perceived to have communal traits. Employee gender was not related to agentic traits, but did have a relationship with communal traits with women being rated more communal than men (Nadler 92 \& 93). Other data Nadler points out indicate that the negotiation main effect showed that employees who negotiated, regardless of gender, were rated lower on the composite measure than those who did not negotiate (Nadler 93). This evidence contrasts Tyler and McCullough's findings to the degree that people rated employees who negotiated as having agentic qualities, no matter what gender. However, these same individuals were also rated lower on the scale of likability and willingness to hire. That with said, it should be pointed out that women were rated as more communal than men. In a workplace situation, women's communal traits and desire of likeability may inhibit them from negotiating for promotions or advancements, and therefore, they may not receive the compensation or credit for their work, whereas men with agentic traits do. Nadler's evidence proves that women's different communication strategies and feminine characteristics receive a negative gender bias that is used against them and limits them in the workplace. Negotiation had a strong relationship with the perception of employees that negotiated as more (negatively) agentic, less (positively) communal, and lower in overall ratings (Nadler 94). Consistent with the social role theory that holds that men and women are sex-role stereotyped into specific occupations perceived to be gender-appropriate, Nader contends that implicit gender bias favors congruent descriptive gender roles (94).

Nadler also analyzes how participants matched images of men and women with agentic or communal terms. There were significant main effects of gender with women being seen as more attractive, warmer, and more likable than men across the familiarity conditions (Nadler 97). Although women maybe more concerned with being liked, and their gender portrays more likeable traits than men, which may be seen as a positive attribute, it is these same characteristics of likeability and congeniality that hold women back in the workplace. Women are hindered from obtaining advancements and promotions in the workplace when they refrain from "standing out" and fear "boasting" about one’s accomplishments or deny themselves credit for their work. Men, in contrast, have been socialized in boy groups that strive for leadership and maintaining one's authority by self-promoting and highlighting of one's accomplishments. Men get rewarded for their contributions with higher salaries and higher-level positions. Men's agentic traits are the prescribed characteristics of appropriate and acceptable behavior in most workplaces. Women, whose communication strategies do not match the organizational culture of the workplace, face gender bias. Furthermore, Nadler indicates that there is a strong implicit bias found against matching women with agentic terms and men with communal terms across familiarity conditions (101). Nadler demonstrates how even though employers and those responsible for promotions in the workplace may be familiar with the individuals they are evaluating, this has no affect over implicit gender bias that ascribe men and women as having certain gender stereotypical characteristics. Men are aggressive and women are nurturing. Participants’ lack of differentiation between individuals they are familiar with and those they are not on the gender bias rating demonstrates that gender bias has a significant effect on women in the interpretation and processing of positive and negative information used to make organizational decisions. Nadler
determines that familiarity does not have a direct mitigating influence on implicit bias of culturally accepted gender roles (101).

In Nadler's last examination of gender bias, participants were asked to read through a performance evaluation of a manager containing both positive and negative comments (103). Participants remembered more positive traits/events when the employee was male compared to when the employee was female (Nadler 109 \& 110). Generally speaking, participant’s sexist attitudes prompted them to remember less positive traits regarding the female employee even though both genders acted the same in the scenarios the participants had read. Nadler’s data prove that gender bias does have significant effects on individual's evaluation of women in the workplace. Women's gender stereotype ascribes them to be in lower-status and lower-paid positions than men, with the assumption that they are the weaker, less capable gender. Women's gender stereotype receives more negative attention in the workplace. Nadler's findings reveal that as benevolent sexism increased, the amount of positive traits/events remembered decreased for female employees (111). Implicit bias may be responsible for women receiving more negative attention in workplace situations. Nadler also finds that as implicit bias increased the amount of negative traits/events remembered increased for female employees (113).

Overall, Nadler provides quantitative data that illustrate how women's gender stereotype creates problems for them in the male-dominated workplace. The organizational culture of most workplaces supports male's communication styles and characteristics that lead them to advancements and promotions. Furthermore, women's negative gender stereotype ascribes them to lower-status and lower-paid occupations and careers than their male counterparts, despite their capabilities or knowledge, women are not perceived as able to perform in typical masculine
positions. Despite employers' familiarity with the individual they are evaluating, women's characteristics are negatively received in the workplace and limit them from obtaining advancements and promotions. Positive traits/events were less likely to be remembered, and negative traits/events were more likely to be remembered when the manager under evaluation was a woman, states Nadler (141). Regardless of women's high likeability rating, they do not receive recognition for their work or contributions in the workplace. Because negotiation qualities are required for advancements and promotions, men's agentic characteristics enable them to be successful in gaining the recognition they need to advance in the workplace. Nadler's data illustrate how negotiating qualities increased ratings of agentic traits, reduced communal traits, and resulted in lower overall ratings of favorability (141). Women's communal traits, even though increased their likeability, were not seen as positive traits for use in the workplace. Explicit gender bias may be able to be controlled, but Nadler provides substantial evidence that implicit gender bias is still a concerning issue for women in the workplace. Nader argues that moderate implicit bias supports prescriptive and descriptive stereotypes of men as agentic and women as communal (141).

## Maternity Leave

Because the workplace has become male-oriented and held to masculine standards as far as time-off and sick-leave, women face a double standard and are the victim of gender discrimination when they are not promoted or offered the same positions as males, but also when they are held to the same standards as males when it comes to maternity leave and not being offered enough paid time-off that is healthy for both the mother and her offspring. Julie C. Suk's "Are Gender Stereotypes Bad For Women? Rethinking Antidiscrimination Law And Work-

Family Conflict," regards how the conflict between work and family responsibilities remains a significant barrier to women's equality in the American workplace (1). Americans reject the presumption that every woman should take a long maternity leave because that assumption is premised on paternalistic gender stereotypes, rather than respect for a woman’s choice (Suk 4). Suk argues that because the anti-discriminatory law has pushed family and medical leave into a single regime, women who give birth are not allowed the proper paid time-off for fear of showing favoritism toward one gender, as well as due to the costs and fears of sick-time abuse. Suk points out that other nations, such as France and Sweden, have successfully combated this issue by giving women the proper maternity leave, and less generous sick-time is administered separately. After all, French women are entitled to take sixteen weeks of paid maternity leave, and most employers are prohibited from allowing women to work two weeks before and six weeks after childbirth, declares Suk (3). Whereas, the American, male-dominated workplace has not guaranteed women the proper amount of paid maternity leave after the birth of a child. In fact, it seems that women who begin work immediately after the birth of a child are perceived as more professional and work-focused. Perhaps women feel this is required and expected of them if they are to gain the same promotions and positions as their male counterparts. Women are held to the same sick-time standards as men, even though men could never occupy the role of giving birth. In contrast, Suk explains how European countries seek to protect the special relationship between mother and child and see paid maternity leave as beneficial for women and their families (4).

Despite the media craze over the issue of unfair maternity leave in the United States and promotion of the methods used by Europe and France, Suk states the media fails to point out the
real issue at hand: the separation of maternity and parental leave regimes from all other forms of family and medical leave, gender-differentiated entitlements, and paternalism (5). Instead of acknowledging these two instances of time-off as different, and therefore, requiring of different standards and length of absence, America regards these issues as situations using gender stereotypes and neglect to give women the proper time-off after child birth for fear it will show gender favoritism. The fact of the matter is that these occurrences of time-off are different for women due to their reproductive responsibilities. I argue that if women are held to their gender stereotype and still considered to be constrained to their domestic and subservient positions under men in the workplace, demonstrated by the positions they obtain and their lower pay, then the maternity leave granted to them should abide by their gender stereotype of being the household caretaker and having familial responsibilities. Women should receive the proper paid maternity leave that takes into account the mother-child relationship and the health of both the mother and the child. Suk states that the European models demonstrate the wisdom of separating maternity leave from the legal regime that administers medical leave, especially since medical leave in the United States involves unique and controversial costs (5). In addition, European models shed light on the ways in which American law's primary concern with gender stereotypes can undermine gender equality by intensifying the dynamics that make work and family conflict (Suk 5 \& 6). Although neither is perfect, as Suk points out that the European models might be at fault for perpetuating traditional gender roles, it is unarguable that women do face the burden and joy of giving birth, and they should be compensated with the proper paid time-off.

In the United States, the goal of the Family and Medical Leave Act of 1993 (FMLA) is to provide equal opportunity employment for all men and women. FMLA grants covered
employees with twelve weeks of unpaid leave annually to care for a newborn baby or an adopted child, and ill family member, or their own serious health concern (Suk 7). While this does combat the negative effects of gender inequality, it does not consider the fact that the primary responsibility for family caretaking often falls on women and affects the working lives of women more than men. Stated bluntly: the federal statute does not distinguish between maternity and paternity leave (Suk 7). Women, in the United States, are faced with a decision to either go without pay for several weeks in order to properly care for their new offspring or return to work immediately to receive the same opportunities, advancements, and pay as their male counterparts who will never have to face the burden of childbirth. In so doing, it does not distinguish the medical incapacity to work as a result of pregnancy and childbirth from other medical conditions that might require an employee to miss work (Suk 7). While avoiding gender discrimination in equal opportunity employment, FMLA fails to resolve professional women's conflict between work and familial responsibilities. While I do acknowledge the fact that there may be several single fathers that might also need time-off to care for their family, these roles traditionally fall onto a women's plate—and both men and women should be granted the proper amount of paid time-off for this specific circumstance of sick-leave.

Some may argue that women are allowed up to twelve weeks off without the worry of losing their job; however, most individuals do not take their full leave of absence. Suk asserts that the most common reason for not taking available leave is the inability to afford it (8). Women face challenges in their workplace and gender discrimination when they cannot afford to take the proper time-off to care for their family. Joan Williams regards the work-family conflict as a consequence of designing the workplace around masculine norms (in Suk 13). Employers
tend to view ideal employees as those that can work full-time and take the least amount of timeoff. This is a masculine role as very few women fit this description because it relies on the assumption that the employee has a stay-at-home spouse that cares for the family. The traditional female gender stereotype personifies women as the family caretaker. Thus, when an employer requires employees to perform as "ideal workers," they are imposing masculine norms that are difficult for women to achieve, thereby discriminating against women (Suk 14). In addition, Suk describes how when returning to work after childbirth, women frequently are faced with hostility due to employers assuming that they will have extra responsibilities that take their focus or time away from their work. Since the female gender stereotype upholds responsibility to reproduce, based on the simple fact of motherhood, rather than work performance, women with young children are passed over for promotions and other opportunities (Suk 14).

The apparent gender gap with regard to long-term leave taking clearly has important implications for women in regards to equal employment opportunities in the workplace. Suk states, "When women are the primary consumers of maternity or parental leave, employers have an incentive to discriminate against women, particularly mothers, in hiring and promotion" (64). By taking the anti-discrimination law too literal, the United States is failing to account for basic biological gender discrepancies. Four out of the five respondents from the "Wyndham Vacation Ownership Technical Communications Department Survey" mention concern regarding maternity leave for women. The four respondents insist that women should be allowed the full twelve weeks off with pay. In fact, one respondent even went so far as to state, "Maternity leave is different and should definitely be allowed full twelve weeks with pay (and actually more weeks)."

Suk describes how in the United States, the law makes it problematic for employers to treat women differently based on the belief that women tend to have family responsibilities that conflict with their ability to meet the demands of the workplace (54). Yet this belief is precisely the type of generalization that constitutes a gender stereotype (Suk 54). The American antidiscriminatory act attempts to provide equal opportunity employment, but fails to give women a chance to prove themselves when it ignores the gender barriers that prevent women from doing so. Since women tend to do more family caregiving than men, even in dual-career families, according to the anti-discrimination act, employers are left to apply the same standards to differently situated individuals (Suk 57). Nonetheless, when employers make the same demands on women and men, without regard for their caregiving responsibilities, people who are primary caregivers (usually women) will find it more difficult to meet the employer's expectations than people who are not primary caregivers (usually men) (Suk 57). The United States could learn a lesson from France and Sweden who acknowledge that fact that women's reproductive responsibilities should make a difference in the amount of paid-time off for maternity. In doing so, France and Sweden paint a different image of women in the workplace. Instead of women having to compete with men in the workplace, who have already distinguished the work norms as masculine, in terms of proficiency and taking little time-off, women are viewed as equal employees who deserve and merit time-off for familial responsibilities. France and Sweden focus on making it easier for women to combine work and family without striving to give women the same opportunities in the workplace that are available to men (Suk 54).

A lenient anti-discrimination law also has implications in other areas, as Suk insists, while gender stratification with regard to caregiving and working persists in all three countries,

France and Sweden boast higher rates of female labor market participation and smaller gender wage gaps (54). This lightens manifestation of one of the greatest indications of gender bias in the workplace, the national wage gap. France and Sweden’s portrayal of women being the childbearers has reduced their national wage gaps. Suk reveals that in the United States, the average annual earnings of females of all ages and levels of education, age thirty to forty-four, is sixtythree percent that of males, as compared to seventy-four percent in France and seventy-two percent in Sweden (59). Again, without regard for women's reproductive responsibilities, American women are getting paid less than men. Suk argues that the gender wage gap reinforces women's primary caregiving role in the American unpaid family leave regime: When the leave is unpaid, it is rational for the lower-paid parent, usually the mother, to take time-off of work to care for children (57). The Supreme Court insists that gender stereotyping poses barriers for the hiring, the occupational roles, and the advancement of women in the workforce. However, by acknowledging the fact that women have a gendered biological differentiation than men that grants them the right to paid time-off from work, as well as equal opportunities upon return, women would not have to compete between their familial and professional roles just to be treated as equals to men in the workforce. By mimicking France and Sweden, and reconciling the workfamily conflict, in the United States, women may be more likely to take up gender neutral parental leave because the law facilitates this path by requiring them to take paid maternity leave (Suk 67). When men refrain from taking parental responsibilities, this reinforces the female gender stereotype restricting them to domestic roles and familial obligations. By opening the path for a more gender-neutral paternal time-off, it may offer a strong initiative encouraging fathers to do more caregiving.

Although the United States might want to scrutinize the distinguishing of paid maternity time-off and regular paid sick time-off as gender stereotyping, it is clear that pregnancy is different from other temporary disabilities and unique to women. When the United States does not treat pregnancy as a distinct paid sick time-off, and more generously than regular sick-time, it hinders pregnant women from competing fairly for employment opportunities. Perhaps if employers regarded maternity leave as a necessary and required time-off of work for all parents, in general, they might view women who take their full time-off after giving birth (hopefully with pay) as a part of their benefits for being an employee and not as negatively affecting their work or position. Suk explains how the comparative employment outcomes for women in the United States, as compared to women in France and Sweden, indicate that women fare better overall when employment policy facilitates work-family balance, instead of ignoring it (66).

This chapter discusses how women’s gender stereotype and sex-role stereotyping segregates men and women into different acceptable and gender-appropriate professions. Women are typically evaluated and appraised based on their negative gender stereotype and assume lower-status and lower-paid positions than men. Furthermore, Tyler and McCullough also demonstrate how women get negatively evaluated both when conforming to the masculine organizational culture of most workplaces, as well as when displaying their feminine qualities. Lastly, by not treating pregnancy and maternity leave as a separate paid-time off in comparison to regular sick-leave, gender binaries become more salient in the workplace when the ideal worker is perceived to be a male, who most often have no familial responsibilities. Gender bias and sexist attitudes, both explicit and implicit, have hindered women from obtaining higherstatus and higher-paid positions in the male-dominated work arena.

## CHAPTER 5: RESOLUTIONS, LIMITATIONS, AND FUTURE RESEARCH

This concluding chapter focuses on the key points I discussed in the previous chapters regarding how women's negative gender stereotype is perpetuated and promoted in the media and how women's negative portrayal puts them at a disadvantage in the workplace. I emphasize some of the major challenges women face in the workplace and provide a resolution as to how gender stereotypes may become less pervasive or eliminated in organizational cultures, as well as in individuals' own cognitive schemas. Finally, I discuss possible areas of fruitful research regarding gender bias in today's society.

Many of women's accomplishments have been obscured by having been misclassified, trivialized, or attributed to men (Durack 37). As I explain in previous chapters, women’s gender stereotypical conversational rituals and unique styles have limited their success and advancements in their careers. Durack points out, cultural stereotypes discourage women from claiming credit for their achievements, and even worse, encourages them to be generous and giving, resulting in sharing ideas rather protecting and profiting from them (38). Although it is clear that in the late twentieth and early twenty-first centuries, women have made significant contributions to technology and science, women's gender stereotypical affilitative and peopleoriented management strategies are still negatively affecting women in the workplace and have hindered them from achieving equality and the same success as professional males. Women's desire to be liked promotes them to give into competitive situations, most often profiting a man. Tannen provides an example in which a male profited from, and even took advantage of, a woman's collaborative negotiation style. Tannen explains how a male in a company threatened
to resign if his female co-worker did not agree to his choice when hiring a new employee. Even though the two managers were of equal rank in the company, and the choice was to be mutuallyagreed upon, the male and female's negotiation styles worked in isolation of one another. Tannen states that even though the female was an ardent and persuasive advocate for her view, she respected the male co-worker and had no choice but to take his feelings into account, yielding to his decision. Tannen regards how when one talks to someone who has a similar style, one can fairly well predict the response he or she will get. However, when two people’s conversational styles do not match, most often a male and female's, they do not know how the other is going to react in a conversation. Tannen reasons that the male in the example did not predict the impact that personalizing his argument would have on the female (34). Their different approaches to negotiation put her at a disadvantage in negotiation with him (Tannen 34).

Historically, women have held domestic and subservient roles in the household, while men were the "breadwinners" and those that worked. Perhaps due to their reproductive responsibilities, as well as their congenial, egalitarian communication styles, women have received a negative stigma in the workplace. Women's gender stereotype attributes them to being unconfident and incapable in typical masculine positions. The media proves to be, at least partially, if not fully, responsible for the reproduction and perpetuation of gender stereotypesdisplaying men as professional, aggressive, and dominant and women as domesticated, submissive, and emotional. Most genres of the media depict men and women according to their gender stereotype. For men, their gender stereotype has benefited them, organizing workplace cultures around male's communication styles and perceptions. Women face challenges in the workplace and may be denied promotions and advancements when the organizational culture is
dominated by men. Furthermore, people believe what they see in the media to be true of real life and coincidently become socialized to accept the characteristics, prescribed behaviors, and acceptable occupations and fields ascribed to their gender stereotype. Women may fail to even enter typical masculine occupations and fields such as science, engineering, and technology. Including women and women's work in a history of technical writing requires that we contest two assumptions that lead to their exclusion from our disciplinary story: First, that women are not significant originators of technical, scientific, or medical achievement; and second, that women's tools are not sufficiently technical, nor their work sufficiently important, to warrant study of their supporting texts (Durack 37).

Mutual Understanding and Respect of Communication Styles

The purpose of this thesis is to demonstrate the pervasiveness and agency of gender bias in the workplace and it's limiting effects on women. Knowing the how and why of gender bias is of value in addressing and ending gender discrimination (Nadler 66). The literature I provide on gender bias makes a persuasive argument for how gender and role expectations interact and lead to unfair evaluations. Through the investigation of gender bias in the workplace, professionals and employers will gain an awareness of how gender bias and socially-prescribed gender roles can affect the workplace and interfere with women's success in their careers.

The media's exploitation of gender bias can have severe and devastating effects on women as they strive to gain acceptance in the male-dominated professional work environment. The media's negative depiction of women has influenced individuals' evaluation and judgment of women's unique characteristics and skills and deemed them incapable of male professions and positions. In order for women to receive equal opportunities in the workplace and sidestep their
negative gender stereotype, members of society must alter their perceptions of women. Women must be respected as equal and agent members of society. Perhaps Baker's notion of reciprocal accommodation is the beginning of society becoming aware of both explicit and implicit gender bias that may hinder their judgments and evaluations of women. By becoming aware of the pervasive and impeding effects gender bias has on individuals' cognitive schemas and the resulting detriment to women in the workplace, society may begin to learn to accept and understand women's unique communication strategies and value them in the workplace as equals to males.

We must continually remind ourselves that the world is changing, and women and men no longer can be depended upon to stay in the narrowly prescribed roles we were consigned to in the past (Tannen 119). In order to combat gender bias in the workplace, people must become aware of their own gender bias and sexist expectations that might impede their judgment and evaluation of others. Baker warns that businesses and managers must be aware of gender bias and discrimination in their companies, access and implement opportunities for mentoring and networking, and open avenues of communication and power for women. Baker concludes that before CEOs or managers attempt to improve opportunities for women in their companies, they need to verify the existence of gender discrimination (124). One of the major ways that expectations impede us is in the strong associations we have of how women and men should speak and behave (Tannen 119). In addition, people must be aware of how different communication strategies evoke meaning in different ways and be open to understanding how different people, either men or women, might be saying something in a different way than expected, or in a way that one is not use to, and strive for mutual respect and understanding-
which may promote effective collaboration and teamwork in the workplace. Tannen contends that with women entering situations that were previously all male, where established norms for behavior are based on the ways men behaved in those roles, expectations must give way-either expectations for how someone in that role should behave, or expectations of the women who move into those roles. The media, organizations, and employers must change their norms of how each gender is depicted, portrayed, and culturally recognized and establish new expectations for the roles men and women come to fill.

As companies and businesses learn flexibility and mutual understanding and begin to include of a variety of different communication styles in their organization, this will make for better businesses as most organizations rely on outside communication with either vendors, customers, or clients, as well as co-worker teamwork and collaboration. Having the ability to correspond with and accommodate many different styles of communication will enable a company to be more successful. Tannen reasons that if more people understand the workings of conversational style, they will be able to adjust their own ways of talking and stand a better chance of understanding how others mean what they say (159). Comprehensive training and awareness are needed until everyone is working to make the workplace a world where differing styles are understood and appreciated (Tannen 131). In correspondence, if more people understand different communication styles, it will be less necessary for others to adjust their styles when speaking to different audiences. The frustration of both genders will be reduced, and companies as well as individuals will benefit, if women and men understand each other's styles (Tannen 126). If more people's styles are accommodated, more talents and ideas will be available to the company (Tannen 129).

Tannen describes a situation when a male subordinate learned to understand how a female superior gave directions and orders in an indirect style when previously there were misunderstandings and work not accomplished because the subordinate did not know what the superior meant when she used indirect methods. Tannen remarks that the ease with which the manager learned to understand how she meant what she said is evidence that there is nothing inherently incomprehensible about indirect communication (106). Perhaps more of women's ideas and concerns will be acknowledged and women might come to have a valuable role in the workplace and a larger voice in technical communication if companies and organizations learn women's alternate communication strategies. While women must also strive to be accommodating and alter their communication strategies to meet half way with their audience's expectations in demonstrating that they have desired qualities-there demeanor must also be met with deference. In other words, when women show that they desire and possess certain qualities of an occupational role or career position, other people, employers and peers, must also acknowledge that they have those qualities—even if it means that their communication of these qualities is different from their audience's. Regarding women in leadership and masculine occupations, Tannen argues that if others refuse to treat you as deserving of authority, you can't "hold up" your face on your own (181). With all the elements of conversational style, flexibility is the key to success—along with mutual respect (Tannen 106). If supervisors learned to perceive outstanding performance and women's conversational style as an alternate method of leadership and motivation, then it will be less necessary for women to have to adjust their style to using one that is uncomfortable and unnatural for them. In addition, women's accomplishments and
credentials may be recognized without them having to self-promote or risk the loss of promotions and advancements.

## Women's Speaking Out about Gender Bias in the Workplace

In addition to organizational cultures becoming more accepting and valuing of women’s different communication strategies and capabilities of masculine roles, organizations must implement a system of reprimand in order to prevent gender bias from occurring in the workplace. Victims of gender bias and discrimination must be encouraged to speak out against these denigrating experiences and the organizational structure must be unwilling to accept this as a cultural norm. Hatchell and Aveling state that scientists on the receiving end of harassment and/or discrimination require an organization that is proactive rather than reactive (372).

We need to acknowledge that many science workplaces continue unabated in their boys’ club mentality (Hatchell and Aveling 372). To protect their rights to an equitable workplace, women scientists need an organization that will fight on their behalf when things go awry, but one that will also work systematically with laboratory managers, heads of departments, and academic supervisors to create an environment that does not condone the covert gender-based discrimination and harassment that the women whom we interviewed experienced (Hatchell and Aveling 372)

Women who struggle with covert gender discrimination in the workplace feel that their only option they see open is to leave their job all together. That would certainly better explain women's attrition from the sciences (Hatchell and Aveling 372). If we are serious about not wasting human capital and are equally serious about justice and fairness, then we need to look to the masculinist culture of organizations (Hatchell and Aveling 372 \& 373). With an effective
human resources department, along with women's unwillingness to become victims of gender bias and discrimination, more women may be encouraged to enter typical masculine occupations and careers, while simultaneously retaining those women already in the fields of science, engineering, and technology.

The examination of gender stereotypes and expected gender roles on work relevant hiring and promotion decisions remains an issue of interest and contention (Nadler 142). Nader states that considering the realities of gender differences in pay and promotion favoring men and the over-representation of men in higher pay occupations, each potential explanation of these differences needs to be examined (142). Gender bias is commonplace in society and becomes an issue for women in the workforce when they are judged according to their traditional gender stereotype, resulting in the loss of obtaining jobs, the loss of promotions and advancements in competition with men, as well as lower-pay than their male peers. Psychological processes, such as the use of stereotypes, provide a useful starting point to explain these gendered outcomes (Nadler 142). The study of gender bias in the workplace is an essential research subject in order to obtain practical data that may help reduce the salience of gender binaries in our society. Furthermore, Nadler adds that understanding the sources and processes of gender differences in the evaluation of employees can direct preventative training and interventions to reduce inequities (142).

The ability to control explicit gender bias is important for employers in order to make conscious, equal decisions regarding employment opportunities and hiring of employees for both men and women. Additionally, Tyler and McCullough and Nadler's evidence of the negative effects of implicit gender bias for women has practical use in the real-world and can be used as a
lesson for employers to learn. The task of employee evaluation is important and has consequences both for the individual rated and the success of the organization in which the ratee and rater are embedded (Nadler 60). Employers must be aware of implicit or unconscious gender bias that may be activated when making hiring-related or promotional decisions, especially in the case of women. Explicitly held beliefs may be more predictive in avoiding bias in situations that permit purposeful cognition, whereas automatic processes are more predictive when a quick automatic decision is likely (Nadler 66). By becoming aware of one’s own implicit gender bias that may surface when evaluating other's, individuals might be able to control or eliminate such gender bias that negatively impacts women in the workforce. Implicit measures are also more likely to be predictive of discrimination when it is socially inappropriate to admit to one's bias towards an individual (Nadler 66). The importance of performance evaluation is sufficient motivation for real-world evaluators to carefully process such decisions using only controlled cognitive processes. However, Nadler contends that both automatic and purposeful processes must be considered in context of gender stereotypes and sexism of the rater in order to understand gender bias (66). There is a clear business application as well as a social justice element to defining the psychological mechanisms behind inaccurate and inappropriate biases based on stereotypes (Nadler 5). By understanding the relationships between stereotypes and the consequences of explicit and implicit gender bias on one's evaluations, judgments, and expectations, society may become aware of and limit their use and exploitation of gender bias, directly helping to address and alleviate social injustice. Perhaps women may one day be perceived as equals to men and receive reciprocally accommodating work roles and earnings.

Eliminate Sex-biased Language

The study of gender bias and stereotypes that erupt or are perpetuated by the use of masculine language is also an important issue regarding gender bias in the workplace, as the use of masculine language increases gender bias in favor of males. Hall and Nelson indicate that sexist language persists in the workplace and that such language can engender sexist attitudes which often have deleterious effects on the company and its employees (69). Hall and Nelson explain that despite sexual discrimination and sexual harassment laws, sex-biased language is still found in professional work environments. For example, letters are addressed to, "Gentlemen," and words such as, "manhours," "draftsman," and, "workman," are used frequently (Hall and Nelson 70). Hall and Nelson contend that the use of such masculine terms increases sexist attitudes and gender bias in the workplace. Thus, the study of sex-biased language becomes a significant research topic in order to reduce the salience of gender bias in the workplace. Hall and Nelson suggest that technical communication teachers be vigilant in their language use and encourage and teach their students to use gender-neutral language in their profession writing, as well as when entering their careers. Given the continued presence of sexist language and its negative effects, technical writing teachers do have some responsibility to alert students to this language as they prepare students to enter the workplace (Hall and Nelson 72). Hall and Nelson's research suggest that even the use of masculine language, which has been a standard in our society, increases gender bias and sexist attitudes in the workplace. Another practical remedy members of society should reach for is to limit their use of masculine language, while at the same time increasing their use of gender-neutral terms. Being aware of how masculine terms increases one's gender biased cognitive schemas is another step to reducing gender bias in the workplace and its negative effects on women.

## Limitations and Future Research

Despite having reported on a broad overview of gender bias in the media and its effects on women in the workplace, there are some limitations to this study, which provide a framework for future research on gender bias and sexism the workplace.

One limitation to this study is it lacks additional conclusive primary research. The "Wyndham Vacation Ownership Technical Communications Department Survey" is the only ethnographic study of a technical communication workplace that is included in the research for this study. To increase the validity of the results, more workplace studies would be necessary and valuable data.

Secondly, many of the articles, used as sources, include anecdotal evidence from many individuals. While personal experiences in the workplace are valuable and significant measures of implicit and explicit cognitive schemas, the data from narrations may be skewed, as it does not take into account the effect the researcher may have on the individuals’ accounts of their experiences or the amount of information an individual may offer to any one researcher. Furthermore, because the subject of study is gender bias and sexist attitudes, the researcher's gender may also inhibit or expedite participants' revelations of information.

Examining gender bias in the workplace must become a priority because gender bias continues to have a negative effect on women in the workplace. While the late twentieth and early twenty-first centuries has brought an increase in the number of women in the workforce, and more women are entering fields that have typically been ascribed to men, women are still undervalued and underpaid. Several scholars have researched gender bias occurring in the workplace; however, the ways in which this research has influenced workplace or classroom
practices are unclear. Several questions could be answered, such as if educators are making a point to encourage women into the careers and fields that are typically only male-sought, as well as if educators promote the use of gender-neutral language, which may reduce the salience of gender discrepancies in individuals’ cognitive schemas. Additional research may include whether employers are able to dismiss gender bias and sexist attitudes in their judgments and appraisals of their employees if they are made aware of them before performance. Is it possible for women to be judged based on their own merits, contributions, and unique qualities that they bring to the workplace? Miller and Hayward assert that in order to combat gender bias, sexism, and gender segregation of careers and occupations, research on how best to raise young people's awareness of a wider range of jobs will need to be a central research issue for career theorists, professional associations and teachers in the future (88). In order for our society to change, we must first find out how best to minimize the salience of gender stereotyping and encourage both men and women to be interested in and enter professions that they personally find suitable, despite their gender or the masculinity or feminization of the job.

Another area of research that augments the study of gender bias in the workplace and its effects on women is the study of sex-biased language and how it might be used in the workplace, as well as steps to reduce its salience in professional documents and workplace conversations. Hall and Nelson state that some businesses and industries have official guidelines which mandate that exclusionary language be removed from their communications (69). The problem is that these laws and guidelines are not always abided by, which has devastating effects on women in the professional workforce, as males are still perceived as the dominant and ideal worker. The study of sex-biased language use in workplace practices is of significance.

Furthermore, different companies and organizations may have different sexual harassment policies depending on the number of employees, the monetary value of the company, as well as the communication practices of the workplace. Investigating large, medium, and small business's sexual harassment policies may bring insight into women's experiences of sexual harassment, which stems from gender bias, in the workplace. Extensive sexual harassment policies that were effectively communicated to employees may deter individuals from sexually harassing his or her peers. Victims of sexual harassment and gender discrimination may be prompted to utilize their employer's resources to stop their experiences of harassment and discrimination. Employees who are aware of sexual harassment behaviors, situations, and repercussions may promote an egalitarian, gender-neutral workplace. Discovering the effectiveness of different sexual harassment and gender discrimination policies is another research area of significance to the study of gender bias in the workplace.

Analyzing educational material, such as textbooks and handouts, would also be a worthy study in order to find out if educational materials still use sex-biased and masculine language in their teachings. How the use of sex-biased language in education affects students as they prepare to become members of the workforce is significant because teaching students to use sex-biased language in their communication can perpetuate and reinforce gender bias in the workplace.

The intensification of social media in the twenty-first century can be viewed as a police force where individuals do not want to get "caught" performing a behavior that is not considered socially acceptable. Researching ways in which social media could be used to regulate gender bias and acts of gender stereotyping and gender discrimination is of significance in order to discover if social media is beneficial in minimizing gender bias and its negative effects on
women. Perhaps social media is useful in channeling gender bias and promoting an accepting society.

Lastly, in light of Tannen's research on the different communication strategies of men and women and how women are many times unheard, appear unconfident, and get flustered in the face of confrontations, makes one wonder about the faulty decisions made by NASA managers in the Challenger disaster, of 1986. Was it only men who made up the team of decision-makers? Was it their prestige-oriented styles and desire for esteem that prompted them to fly the shuttle when they had been aware of O-ring charring? Did the social and organizational pressure coerce men to keep up their appearance and reputation in light of the social context and fly the shuttle despite its safety concerns? A possible area of further research is the gender differences in communication between the engineers of Morton Thiokol, Inc. and the L-1 Million Management Team. One could analyze the gender make-up of the two different teams and see whether gender differences in communication could have contributed to the faulty decisions made. If more women had been included in the management team, would their concern for others have made a difference in the ultimate decisions made? Women's willingness to ask questions may have compelled them to find out more information regarding the safety of the shuttle. In addition, women's unconcern for public appearances may have limited the effects the social and organizational forces had on their decision.

Paul Dombrowski states that meaning comes from the confluence of information with assumptions, interests, goals, and values (125). For women, the meaning of the consequences may have been different than they were for the men on the management team. Women's concern for others and people-oriented skills may have prompted a more ethical consideration for the
safety of the astronauts. However, men's goals of acquiring and maintaining authority, as well as their concern for how the public perceived them, may have made them dismiss the safety concerns to "save face" in the public eye. The data were clear that the O-rings were faulty and a large safety issue; however, as Dombrowski points out, "Meaning is therefore socially contingent and constructed and does not spring fully formed from a body of data" (125 \& 126). For instance, Lawrence B. Mulloy, manager of the Solid Rocket Booster Project at the Marshall Space Flight Center, contended that the charring was acceptable because it was within their "experience base" (Dombrowski 131). Social forces persuaded the anomaly to become normal.

Although there were several male managers on the Morton Thiokol engineering team that argued against the space shuttle's flight, such as Roger Boisjoly and Arnie Thompson, the lack of a female voice in both the Morton Thiokol management team and the L-1 Million Management Team may have made these management teams severely lacking in ethics. Dombrowski emphasizes how NASA managers were "appalled" to learn of the engineers' recommendation against launch (133). This is not to say that male technical communicators are not ethical, it brings to point that females' concern for others and social relationships may have shed a different light on the situation. Furthermore, when the NASA L-1 management team reconvened with the Morton Thiokol engineers after an off-line caucus and told them they had to prove that the space shuttle was not flightworthy, instead of flightworthy, women engineers may not have been as easily persuaded by the change in perspective and interests. Dombrowski regards that the change of perspective, interests, and values came a different interpretation of the data (134). Instead of being seen as unclear about supporting the decision to launch, with the reversal of the argument, the data was now perceived as unclear about supporting the decision to
not launch; therefore, the NASA L-1 management team felt they did not have enough conclusive evidence to terminate the flight of the space shuttle. Rather than being seen as unclear about supporting a recommendation to launch, the data were now seen as unclear about not supporting launch; that is, the same technical information was seen as questionable but in the opposite direction (Dombrowski 134). Morton Thiokol management returned for their reconsideration with a recommendation to launch, which was made official by a telefax under signature of Joe Kilminster, Vice President of Space Booster Programs at Morton Thiokol (Dombrowski 134).

In regards to gender bias in the workplace, further research on the gender discrepancies in the Morton Thiokol and L-1 management teams would be significant to see whether gender differences, as well as the lack of female managers on the teams, could have impacted the faulty decision that ended in disaster. In overriding the engineer’s well-informed recommendation against the launch, management behaved in an authoritarian way, insisting on reserving the final judgment for themselves, insisting on the greater power of themselves over the engineers, and insisting they could even turn the tables by inventing a new argumentative assumption of the L-1 meeting (Dombrowski 145). Women's egalitarian approach and indirect styles in communication may have initiated the management team to listen to the Morton Thiokol engineers and take input from others, instead of striving for the goals of authority and power. In addition, perhaps there were women included on the management team, but their indirect communication style may not have been comprehended by their peers; therefore, their concern for others and the safety of the shuttle was not heard by their male counterparts who are not familiar with that style of communication and do not comprehend meaning from it. Caring concern for others would require that those involved in communication and making decisions about the Challenger
mission do so with the safety of the crew paramount in their minds (Dombrowski 145). The gender discrepancies and the lack of a female voice on the L-1 management team indicates that the team had a greater concern for power and prestige, which is a gender stereotypical masculine characteristic. A feminine concern for others and value of personal relationships and collaboration would have initiated a more ethical consideration in the decision to launch the Challenger. This seems not to have been the case as the safety of the crew was overridden by concerns about such things as the flight schedule, NASA's image, the magnitude of funding for NASA in the future, the perceived thoroughness of engineering knowledge, management's authority, and personal reputation (Dombrowski 145). A male's appeal for power and desire for personal recognition got in the way of their ethical responsibilities as managers and decisionmakers.

Through the investigation of gender bias in the workplace, professionals and employers will gain an awareness of how gender bias and socially-prescribed gender roles can affect the workplace and interfere with women's success in their careers. Technical communicators and other educators will have a better understanding of how to overcome gender stereotyping and be encouraged to teach students on how to be gender-neutral in their communications in the workplace. The current role that women play in our society is in need of a change. Society must become aware of women's unique contributions and accept them as equals to men and capable of success. Furthermore, as a final point, the scholarship of gender bias might instigate new research ideas or new methods on how to reduce the media's exploitation of gender bias and presentation of gender stereotypes and recreate a new image for women in the twenty-first century. Individuals may become aware of how gender stereotyping has influenced their own
evaluations and begin to critically assess new communication contexts with a more objective perspective. Society may begin to eliminate gender stereotyping in the media and in the professional workforce, as well as alter the traditional gender roles and professions that segregate men and women into equal representation from both sexes. Although it is a farfetched goal to have society completely eliminate gender bias and sexist attitudes, knowledge of the impact of gender bias is the key to instigate social action.

## APPENDIX: WYNDHAM VACATION OWNERSHIP TECHNICAL COMMUNICATIONS DEPARTMENT SURVEY

## Ethnographic Workplace Questionnaire

## By, Jessica Lynn Campbell

Purpose: The purpose for this workplace study is to provide primary research evidence for my thesis project concerning gender bias in the workplace. My goal is to obtain information regarding both male and female technical communicators’ experiences, beliefs, and interactions in their workplace. I will ask questions regarding one's gender, employment status, communication styles, and interactions with peers.

| 1. Gender: Male, Female |  |
| :--- | :--- |
| 2. Age range: 20-29, 30-39, 40-49, 50 and |  |
| 3. Please briefly explain your educational |  |
| history. |  |
| 4. Years of professional work experience: |  |
| 5. Years with specific company: |  |
| 6. Please briefly explain your employment |  |
| level, such as are you an entry level |  |
| employee or a manger? |  |
| 7. Do you think that women in this company |  |
| are as well compensated for their work as |  |
| the men are in this company with similar |  |


| positions and status? |  |
| :---: | :---: |
| 8. Do you feel that both women and men hold the same level positions in this company or is one gender segregated into more high-status, management positions? |  |
| 9. Do you feel that some occupational fields or knowledge disciplines are sex-role stereotyped as masculine and feminine? If so, what fields would you consider masculine? What fields would you consider feminine? (Please list a few types of careers that you consider masculine or feminine) |  |
| 10. Is your supervisor or manager a male or female? |  |
| 11. How does your supervisor give you orders, directions, or feedback? For example: indirectly, such as stating what would be a good idea or that they need help with work, giving you a chance to offer to |  |


| help them; or directly, such as telling you <br> blatantly what you have to do or the changes <br> you need make on documents? |  |
| :--- | :--- |
| 12. What type of communication style do <br> you prefer to be spoken to? |  |
| peers, indirectly or directly, as explained |  |
| from the above question? |  |
| 13. Dow do you communicate with your find that the media (social |  |
| media, television, movies, newspapers, |  |
| magazines) tend to portray men and women |  |
| in gender stereotypes? What do you |  |
| consider the male and female gender |  |
| fields they choose to go into? |  |
| stereotype to be? |  |
| and reinforcement of gender stereotypes children's socialization and identity |  |
| 15. Do you think the media's perpetuation |  |


| 16. Do you feel that the workforce is sex- |  |
| :--- | :--- |
| segregated (males obtain careers |  |
| traditionally ascribed to be man's work, and |  |
| women obtain careers traditionally ascribed |  |
| to be women's work) into more males and |  |
| females dominating careers and occupations |  |
| that are traditionally stereotyped as being |  |
| gender appropriate for each particular sex? |  |
| 17. Do you think a woman's appearance |  |
| may suggest something about her |  |
| personality, confidence, and competence? |  |
| 18. What do you think about a man's <br> appearance that might ascribe the same <br> paid? <br> attributes of personality, confidence, and <br> competence? <br> different than a regular employee's extended receive the full allowed time-off <br> sick-time leave of absence, and if so, do you <br> think that women should be allowed the full |  |
| twelve weeks off with pay, as currently they |  |

20. Do you have any final comments you
would like to add concerning gender practices at your company?

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