You Are What You Read: Gender-Typed Lifestyle Magazine

Exposure In Relation To Gender Conformity and Attitude Accessibility

Thesis

Presented in Partial Fulfillment of the Requirements for the Degree Master of Arts in the Graduate School of The Ohio State University

By

Stephanie Soduk

Graduate Program in Communication

The Ohio State University

2009

Thesis Committee:

Silvia Knobloch-Westerwick, Advisor

Amy Nathanson
Abstract

The study at hand examines gender conformity and its link with selective exposure to gender-typed lifestyle magazines. Gender conformity has very rarely been measured in this field, and in this study serves to demonstrate the difference between the dichotomous variable of biological sex and the continuous variable of gender. In addition to this distinction, gender is also being measured in terms of accessibility, whereas participants' response times were measured in addition to their answer selections. In order to measure this link an experiment was used. Baseline gender conformity and accessibility were measured, and approximately one week later participants were summoned to a lab where experimentation occurred. In this session participants were put in a waiting room where they had the opportunity to selectively expose themselves to gender-typed lifestyle magazines of either their own sex or the opposite sex. Participants were videotaped at this point in order to measure what magazines they selected and for how long they looked at the magazines. Following this exposure to stimulus participants were once again examined in terms of gender conformity and accessibility, and data was gathered based upon changes from the first session to the second session.

Results indicate that gender-typed exposure to magazines occurs regardless of one’s level of gender conformity, meaning that females chose feminine-typed magazines and males chose masculine-typed magazines. Accessibility of gender-conformity traits
was increased after selective exposure to participants' own gender-typed magazines, but
gender conformity responses were not affected. Additionally, results show that
participants who report preferring certain gender-typed magazines also have increased
accessibility to gender-conformity trait responses. The preference for male gender-typed
magazines also is related to male gender-conformity responses.

Results have multiple important implications. First the importance of measuring
gender on a continuum and in terms of accessibility is supported, in that it explains some
variance in media preference and indicates effects that magazines may cause. In terms of
magazine exposure, results highlight the level of impact that they can potentially have in
the long and short terms. In the long term as well as short term they potentially increase
accessibility to gender-conformity traits.
Acknowledgments

To my family: This degree could not have been completed without you. You gave me the encouragement to continue on and do my best, as well as the support that I needed in times when I felt like giving up. I truly appreciate everything you all have provided for me.

To my advisor: Thank you for your dedication to helping me become successful in producing this thesis and all of my graduate work. Your hard work and commitment to helping me has not gone unnoticed.

To my graduate cohort: I feel very lucky to have gone through this experience with such a wonderful group of classmates. The support that you all provided has been immeasurable, as well as the friendship that we all have shared.

To The Ohio State University, and particularly the School of Communication: Thank you for offering me the opportunity to grow both as a scholar and as an individual as a member of the graduate community. The past six years of my life have been enhanced because of my membership in this community.
Vita

June 2003 ........................................... GlenOak High School, Canton, Ohio

June 2007 ........................................... B.A. Communication, The Ohio State University

2007 to present .................................. Graduate Teaching Associate, School of

Communication, The Ohio State University

Field of Study

Major Field: Communication
Table of Contents

Abstract ................................................................................................................... ii

Acknowledgments................................................................................................... iv

Vita ..........................................................................................................................v

List of Tables ........................................................................................................ vii

Chapter 1: Introduction ....................................................................................... 1

Chapter 2: Literature Background ...................................................................... 3
  Gender as a continuous variable ............................................................... 3
  Gender-related selective exposure ............................................................ 5
  Magazine content and readership .............................................................. 9
  Attitude accessibility.................................................................................. 13
  Intersection of selective exposure and gender conformity ....................... 15

Chapter 3: Methods............................................................................................ 18
  Overview ................................................................................................ 18
  Participants ............................................................................................. 18
  Measures ................................................................................................ 18
  Stimuli .................................................................................................... 20
  Procedure ................................................................................................ 21

Results ................................................................................................................... 26

Discussion ............................................................................................................. 35

References ............................................................................................................. 45

Appendix A: Stimuli ............................................................................................. 49
List of Tables

Table 1: Baseline femininity scores ......................................................... 29
Table 2: Baseline masculinity scores ....................................................... 29
Table 3: Baseline accessibility to feminine gender-conformity items .......... 29
Table 4: Baseline accessibility to masculine gender-conformity items ......... 29
Chapter 1: Introduction

Social roles and norms structure our everyday behavior in a multitude of ways. Gender is probably the most influential and broadest social role category and clearly affects our views and behaviors, as ample research shows (Beall, 1995). It is actually thought to be functional under many circumstances for the individual to fulfill gender-typed norms and expectations (Hawkins et al., 2001). Given that people in modern societies spend about 10 hours per day with media use (MPAA, 2007), this symbolic environment may strongly affect adherence to social roles in general and gender in particular. In fact, media users could even employ exposure to media message in the interest of performing in line with social expectations such as gender-typed norms. Knowing that most media messages are associated with gender stereotypes, it may well be that exposure to them facilitates socially acceptable behaviors along the lines of gender stereotypes.

Selective exposure has been a topic of concern in the social sciences, particularly communication, for decades. Conceptually it can be defined as the way that people choose to expose themselves to media that match their own disposition, situational circumstances, or features of the message and combinations thereof (Berelson & Steiner, 1964). In this way, it is proposed that people are sometimes cognizant of the media choices that they make and that the audience is at least subconsciously active in deciding
what they are exposed to rather than passively exposing themselves to whatever comes their way.

The current study examines selective exposure to print media, specifically gender-typed lifestyle magazines, and subsequent reinforcement of conformity to gender norms and stereotypes. In other words, it aims to demonstrate effects of the strength of gender identity on selective exposure to gender-typed media, and also looks at the after-effects of attending to this media in terms of the reinforcement of the accessibility of one’s gendered traits. While previous research has tested the selective exposure to media based on gender (Knobloch et al. 2005; Knobloch-Westerwick et al. 2006), this study will also specifically look at the level of gender-conformity to further differentiate between sex and gender. By looking beyond the dichotomous classifications of male and female (Mahalik et al., 2003; Mahalik et al. 2005), variations in selective exposure and outliers can be better understood.

While the first part of the study looks at gender identity strength and its effect on selective exposure to gender-typed magazines, the second part of the study then looks at the effects of reading these magazines. The specific media effect being examined here is how the exposure to magazines affects conformity to gender norms and stereotypes by way of exposure. In other words, does this exposure reinforce the users' conformity to these norms as it makes the topic more salient?
Chapter 2: Literature Background

The project at hand relies upon the intersection of multiple variables and theoretical approaches pertaining to media exposure and media effects, as well as gender socialization. In particular, the relevant literature includes that of gender and its potential to be used as a continuous variable, gender-guided selective exposure, magazine usage and effects, and innovative measures using automatic response time to gauge accessibility. Together the literature explains why gender conformity is relevant, how this affects media exposure, and how media exposure affects accessibility.

Gender as a Continuous Variable

This study aims to differentiate between biological sex and gender by measuring gender conformity levels of participants. In order to understand this concept and the need for these measures it is key to differentiate between sex and gender. Biological sex comes from the actual physical attributes that distinguish people as male or female (Merriam-Webster, 2008). This is in contrast to socialized gender, which is defined as, “the behavioral, cultural, or psychological traits typically associated with one sex” (Merriam-Webster, 2008). To simplify, sex is the physical, whereas gender is behavioral and cultural, comes from pressures and socialization in everyday experiences, and can be considered part of one’s set of values (Rokeach, 1973). Research has shown that gender roles, which are one aspect of gender conformity, can be thought of as the standards that
dictate how men and women are supposed to act in various settings, including home and work (Gilbert & Scher, 1999). The male sex is associated with masculinity, and the female sex is associated with femininity.

In terms of evidence as a central, core, and static value, it has been found that gender roles are taken quite early in life, and thus girls and boys show knowledge of what they are supposed to do as a member of their given sex (Lytton & Romney, 1991), and even make media choices accordingly (Knobloch et al., 2005; Sneegas & Plank, 1998; Valkenburg & Janssen, 1999).

With the differentiation between sex and gender having been established, what does it mean to be more feminine or more masculine as opposed to weakly identifying with ones gender norms? Previous research has looked at this topic in order to gain more understanding of what exactly femininity and masculinity are besides simply physical attributes. The Conformity to Masculine Norms Inventory (Mahalik et al., 2003) and Conformity to Feminine Norms Inventory (Mahalik et al., 2005), CMNI and CFNI, were developed in order to measure the levels to which people conform to traits that have been classified as either masculine or feminine. These scales measure femininity and masculinity on a scale thus differentiating gender conformity from biological sex, which is a dichotomous variable.

The CFNI and CMNI have created a method in which gender is measurable on a scale, rather than as a dichotomous variable (Mahalik et al., 2003; 2005). The traits that were determined to be feminine qualities after multiple tests include: having concern for being nice in relationships, thinness, modesty, domesticity, caring for children, placing
importance on romantic relationships, sexual fidelity, and investing in appearance. The position of this scale is that women who rate high on these various aspects can in turn be classified as conforming highly with the norms of femininity (Mahalik et al., 2005).

Similarly, the CMNI contains a set of attributes which have been labeled as masculine-typed based on various tests of the measures. The traits that are categorized as masculine on this scale include: desire to win, having emotional control, risk-taking, violence, dominance, playboy, self-reliance, primacy of work, power over women, disdain for homosexuals, and pursuit of status. According to this research men can be classified on a continuum of conforming to gender norms based upon agreement or conformity with these categories. The higher men rank, the more they are thought to conform to norms of masculinity (Mahalik et al., 2003).

The key aspects behind the gender conformity literature include first and foremost that gender can be measured continuously and that it is worthwhile to use these measures in research (Mahalik et al. 2003; 2005), as well as the idea that this gender conformity may be considered a value that has been socialized in participants throughout their lives and is therefore deeply rooted Rokeach (1973). This deeply rooted part of one’s value system may dictate how one thinks and acts (Gilbert & Scher, 1999).

Gender-Related Selective Exposure

As previously discussed, gender and gender-conformity are socialized cultural values that, similarly to other values, are developed beginning at a very young age (Rokeach, 1973). In that gender conformity values have been found to dictate how people think and act (Lytton & Romney, 1991; Gilbert & Scher, 1999), media research has aimed
to find out exactly when children begin to outwardly display gender-typed behavior as dictated by gender-conformity socialization. According to research on children's media selection, these behaviors and media choices begin to be displayed at a very early age (Knobloch et al., 2005; Sneegas & Plank, 1998; Valkenburg & Jannsen, 1999). Knobloch et al. (2005) looked at children's choices of movies based on the protagonist displayed on the movie box, and the results show that even children prefer protagonists of their own sex rather than the opposite sex. Additionally, boys in this study were more likely to choose movies of which the covers depicted more aggression, while girls chose more peaceful and nurturing options. Similarly, Sneegas and Plank (1998) found that 10 year old boys report greater interest in violent content by way of their anticipated media selections, and Valkenburg and Jannsen (1999) report that boys prefer violence and increased action.

These particular findings can be very directly related to traits as defined by Mahalik et al. (2003; 2005) in the CMNI and CFNI, whereas aggression is labeled a masculine trait and nurturing is related to the feminine traits. Further relevance of the results found by Knobloch et al. (2005) include that in general people, even children, selectively expose themselves to materials that appear to be aligned with their own traits and values, and in this case that includes gender by way of aggression or peacefulness as well as the sex of the protagonist. In terms of the study at hand, this means that females would be more likely to choose a magazine that depicts a woman on the cover, while males would be more likely to choose a magazine that depicts a man on the cover.

Further research on the age of onset of gender conformity has found that while
young children do display gender-typed media selection at a young age, this polarization also increases with age (Collins-Standley et al., 1996). What is especially relevant with this information is the fact that it lends to the idea that gender-conformity is indeed a socialized set of values and outward behaviors, thus distinguishing it from biological sex. This is to say that clearly children's sex does not change over the course of two years, but gender-conformity grows stronger.

Other gender-related selective-exposure research has examined news use (Knobloch-Westwick et al., 2006). Findings of this research include the idea that there is a gender divide in terms of the topics that are selected by the different sexes. Specifically, men are more likely to choose news stories related to topics of performance and achievement while women are more likely to choose topics related to interpersonal aspects. The importance of these findings, while not specific to magazines, is that both men and women conform to the gender stereotyped ideals. Attributes related to interpersonal topics are linked with conforming to femininity (Mahalik et al., 2005), and this is an important factor in how women may also selectively expose themselves to magazines with similar themes. Since men have been linked to traits of performance and achievement (Mahalik et al., 2003), this may also be influential in choice of magazines.

In terms of research showing gender as a means for selective exposure choices, genre preferences of television viewing have also been measured. Hawkins et al. (2001) looked at television viewing habits of college students, specifically in terms of genre distinction. The results did indeed show that there are gender differences in selective exposure, which align with other research on typical gender-typed content. These results
show that men expose themselves to more sports, news, and game shows while women expose themselves more to drama and soap operas. What is key in these findings is that sports-viewing fits into the gender norms of men and drama fits into the gender norms of women. These findings confirm gender differences in genre preference that align with stereotypical male and female norms, which is likely to cross over into magazine selection.

Other research related to the classification of aggression as a generally male trait studied selective exposure to news and found results in defense of the existence of a gender divide in exposure and preference (Knobloch-Westerwick & Alter, 2006). The results of this study showed that participants who were provoked to be angry had different preferences in terms of relieving or maintaining mood by use of news content. The outcome was that male participants were more likely to choose news content that reinforced their pre-existing angry mood, while women typically chose news content that could alleviate their angry mood. Again, this is another example of how the selective exposure to particular types of media content can be labeled as gender-typed and also how there truly is variation between males and females in the selection of media content.

Overall it is pertinent to point out that the previous research has found results showing that selective exposure is often guided by ones biological sex, but the question of whether participants conform to their given gender-typed norms has not been examined. This is where there is a hole in the literature in terms of the lack of measuring gender as a continuous variable, whereas this research has truly been measuring biological sex dichotomously.
Magazine Content and Readership

Magazines have been researched to an extent in communication research and in other fields, but this examination has often lied in content analyses and correlational measures. Also, this research has had a stronger focus on female-targeted magazines rather than male-targeted publications. The magazine research has yet to touch on gender conformity influences.

The beginning of popular magazines for women stemmed from the idea that women in the 19th century held important input and made the household decisions regarding many purchases (Joliffe, 1994). While magazines were first edited and produced by men, eventually as women began to hold a stronger presence in the workplace they became involved in the magazine sector. As distribution increased and popularity grew, these magazines began to target specific groups of women with particular topic areas of interest. In the past and still today, magazines represent popular culture and allow readers to form an image of what is “in,” “out,” and simply what to think. This not only applies to women's interest publications, but also applies to men's interest, as these magazines are also curtailed to specific target groups.

Knowing that magazines do represent an important window into popular culture for both women and men, it is important to examine exactly how these magazines have been found to impact readers. According to Kim and Ward (2004), women who regularly attend to adult-focused magazines, such as Cosmopolitan, will be less likely to hold sexual stereotypes about men, will understand the riskiness of sex, and will censor themselves. These are key findings as they re-affirm the impact that attending to a
magazine can have on social attitudes as well as behaviors. Additionally, the fact that these women were more likely to self-censor can be tied to the concept of femininity that Mahalik et al. (2005) have compiled.

Magazines can be said to be perpetuators of gender stereotypes as well as the objectification of both women and men. According to Peter and Valkenburg (2007), teens with greater exposure to sexual media, such as magazines, were more likely to view women as sex objects. This could be due to a combination of elements, including written word, photography, and advertisements, as is discussed below.

Hovland et al. (2005) conducted research that compared the sexism of advertisements in recent publications, as of 2005, to sexism in advertisements since 1991. The authors used Smith's (2000) definition of sexism, “a belief in the superiority of men and the discriminatory behavior directed toward women that results from that belief.” Results showed that while sexism in advertisements has actually decreased since the early 1990s, it still has a definite presence in American magazines. This research is relevant because the sexism portrayed in these magazines is associated with gender norms and stereotypes, and as people attend to magazines there is no way of avoiding these advertisements. In turn, these gender stereotypes have the ability to influence the audience, as is seen in media effects research on the topic (Kim & Ward, 2004; Peter & Valkenburg, 2007).

How, specifically, is sexuality portrayed in popular magazines? One content analysis examines the depiction of ideal sexual encounters in popular magazines, including *Cosmopolitan, Glamour, Maxim, and Men's Health*; a combination of male and
female oriented publications (Menard & Kleinplatz, 2008). While this research found that multiple factors were expressed as contributors to good sex/intercourse, the most frequent aspects that were associated with good sex were physical and technical aspects as well as variety. It is apparent that these aspects could also be linked with objectification and superficiality rather than emotional and relationship aspects. Results also include that advice in these magazines typically includes factors related to gender role stereotypes. It could be inferred that exposure to this media could help enforce or reconfirm existing gender socialization.

More research on the nature of sex as depicted in magazines includes Farvid and Braun's (2006) analysis of six consecutive issues of Cosmopolitan and Cleo. The authors found vast support for the magazines depicting gender stereotypes in the sexual realm, including that men are easily aroused and satisfied and that women are obligated to be sexual and to satisfy their partners. Not only does this information have an influence over what is viewed as normal by readers, but it also perpetuates gender stereotypical behavior in that women are depicted as less important sexually than men.

While a great deal of research has focused on women's magazine selection and the effects of reading, less has been examined in terms of men. One study that did focus on the depiction of men in magazines found that men are depicted much more often than women in occupational roles (Vigoritto & Curry, 1998). This finding is associated with gender stereotyped portrayals, as two traits of masculinity are self-reliance and primacy of work (Mahalik et al., 2003). The same study found that men are more likely to be depicted in outdoor situations than women, and women are much more likely to be
depicted as parental. Caring for children is a trait of femininity (Mahalik et al., 2005), thus again depicting stereotypical gender-typed behavior.

Due to the selective exposure aspect of the study at hand, it is important to look at the likelihood that research participants will choose a particular magazine and that these magazines are actually targeted towards one sex or the other. According to Mediamark (2008), *Cosmopolitan* readers are 90% female, *Glamour* readers are 92% female, *Essence* readers are 75% female, *Gentleman's Quarterly (GQ)* readers are 72% male, *Men's Health* readers are 83% male, and *Giant* readers are at least 50% male (Giant, 2009). The median ages for the readers of these magazines range from 29 years to 37 years. This age range may seem high for participants that are college-aged, but these age ranges are relatively low compared with other magazine readership statistics (Mediamark, 2008). With this data it can be inferred that women are more likely to opt for *Cosmopolitan, Glamour, or Essence* while men are more likely to opt for *GQ, Men's Health* or *Giant*.

In addition to gender-targeted magazines, there also appears to be differences in race in terms of readership and target audience. Whereas some magazines tend to appeal to the general audience including all races, such as *Cosmopolitan, Glamour, GQ, and Men's Health* (Mediamark, 2008), there also are magazines targeting and read by African Americans in particular. Since it was expected that some participants in the study would be African American, based on anecdotal evidence from other researchers, it was important to include this demographic in the choice of lifestyle magazine stimuli. For this reason *Essence* and *Giant* were included with the general-audience stimuli (Essence,
Attitude Accessibility

Psychological research states that attitudes are thought to come in two forms: explicit and implicit. The explicit attitudes are those that are outwardly shared and that people are aware of, whereas implicit attitudes may be formed unbeknownst to humans and have been shown to be expressed automatically instead of deliberately. The Implicit Attitude Test, IAT for short, was developed as a means of measuring implicit attitudes by way of measuring automatic evaluations of objects (Greenwald et al. 1998). By measuring the speed at which participants respond to stimuli it is clear how automatic or accessible an attitude/response is, including the salience and strength of the attitude.

Implicit measures have been used to measure these attitudes in multiple research contexts, including gender. Rudman et al. (2001) used the IAT to examine implicit gender stereotypes, meaning that the test accurately measured stereotypes that each sex had of their own sex and the opposite sex.

Other earlier research on implicit attitudes does not use the IAT, but instead explores memory as a measure. Stangor (1988) exposed participants to written descriptions of behavior deemed either consistent or inconsistent with gender stereotypes, and found that participants remembered stereotype-consistent descriptions better than stereotype-inconsistent descriptions. It can be inferred from these results that in regards to gender stereotypes people may attend to and therefore have increased memory of content that they find to be consistent with their own beliefs. In regards to the study at hand, this equates to the potential that participants who do adhere to gender conformity
will pay more attention to these stimuli and the topics will also be salient in their minds.

Research has found that certain situations are able to make gender a salient topic, such as being in a group of people of both sexes versus being in a group of only other people who are all of the same sex as oneself (Palomares, 2004). This gives drive for the possibility that gender salience may be raised by exposure to gender-oriented/typical magazines. In other words, when people are exposed to magazines that weigh heavily on gender and also depict the opposite sex as stereotypical, this could make gender salient.

Another way in which gender may be made salient indirectly would be through raising one's self-awareness. Knowing that gender is a value (Rokeach, 1973) and is central to one's sense of self, it would make sense that by raising the salience of self, gender-salience may also be raised. Perhaps by simply reminding people that they are dealing with self-descriptions could increase salience enough to have an effect. By making a topic more salient, gender in this case, this could potentially increase a participant's accessibility of this attitude and therefore cause a timed response to be automatically answered more quickly.

Overall the research on implicit attitudes and accessibility gives defense to the idea that there are two different forms of attitudes: those that are expressed explicitly and those that must be measured implicitly. The use of timing participants' responses in order to measure accessibility is designed to examine how these attitudes are held implicitly, and automatically, rather than allowing participants to think and deliberate about their responses. This tool allows for the measurement of variance particularly in situations where explicit variance may not be prevalent. In this case gender conformity may not
provide great variance as it is part of the values system which is shown to change little over time (Rokeach, 1973), so accessibility may show more effects. This system of measurement effectively provides accessibility information and thus insight into implicit attitudes rather than only exploring deliberate explicit responses.

Intersection of Selective Exposure and Gender Conformity

What does all of this previous research mean in terms of this specific study? Again, this study has two components, the first being a better understanding of gender-conformity in relation to exposure to gender-typed stimuli, and the second being the effect of this exposure. This literature explains how men and women are likely to expose themselves to gender-typed media, thus providing part of the need for the study. The literature also shows that media have the ability to re-affirm existing self-concepts. However, the question still remains how this study is different when it has basically been determined that men and women do choose different genres and themes, and these choices have an impact on readers. Whereas gender has traditionally been studied as a controlling variable for selective exposure, by measuring gender as a continuous variable further insight may be gained.

By introducing the continuous variable of gender into the selective exposure research not only can multiple levels of gender be analyzed with selection, but those respondents who have previously been outliers in gender-related exposure can perhaps be better understood and explained through these measures. The results will give greater understanding of the strength and role of gender in selective exposure, as well as further insight of how pre-existing gender-conformity is affected by exposure.
Additionally, gender conformity has not yet been examined through accessibility measures, thus providing another need for the current study. While it has been established that gender conformity can change over time, the implicit measures will provide data on just how much gender conformity changes and will do so in a manner that is unobtrusive so as to contain less demand characteristics.

H1: Participants will selectively expose themselves to magazines that are typically read by members of their own sex. For women these magazines are *Cosmopolitan, Glamour,* and *Essence* and for men these magazines are *GQ, Men's Health,* and *Giant.*

H2a: Participants who initially report a greater level of gender conformity via “me”/ “not me” responses will have a greater likelihood of opting to read corresponding gender-typed magazines.

H2b: Participants who initially have increased accessibility to gender conformity traits, thus faster response times, will have a greater likelihood of opting to read corresponding gender-typed magazines.

H3a: Participants who do read gender-typed magazines will have increased gender conformity levels via “me”/ “not me” responses after exposure to stimuli than their baseline gender conformity results.

H3b: Participants who do read gender-typed magazines will have increased accessibility to gender conformity traits after exposure to stimuli than their baseline accessibility results.

H4: Participants in the experimental condition will have heightened
awareness of gender and therefore will show increased gender conformity than those in the control condition.

H5a: Participants who self-report preferring their own gender-typed magazines will have greater baseline gender conformity levels than participants who do not report preferring their own gender-typed media.

H5b: Participants who self-report preferring their own gender-typed magazines will have greater baseline accessibility of gender-conformity traits than participants who do not report preferring their own gender-typed media.

All in all these hypotheses will help determine the two aspects of the study: selective exposure and effects of magazine exposure. The second set of hypotheses will determine whether baseline gender conformity affects media exposure, particularly magazines. While gender differences in selective exposure have been established in previous research and will be tested by hypothesis one, the second set of hypotheses will determine if the level of gender conformity has an effect. The third set of hypotheses will determine the actual effects of the magazine use, as accessibility to gender-conformity traits will be measured. The examination of the importance of highlighting gender will be examined through hypothesis four, and the fifth set of hypotheses will determine what role self-reported magazine preference has on baseline measures of gender-conformity.
Chapter 3: Methods

Overview

This study was made up of an experimental group and a control group and took place in two sessions. The first part of the study was designed to obtain baseline gender-conformity results for participants, whereas the second experimental portion exposed participants to stimuli based upon their own selection and thereafter measured potential changes that this exposure to gender-typed lifestyle magazines may produce.

Participants

Participants included students from The Ohio State University, including 50 students, 19 male and 31 female (38% male and 62% female). Additionally, 10 participants completed part one of the study, but failed to complete part two, and their data was not used in analyses. All participants were given extra credit in a communication course for participation in the study. The age range of participants was 18 to 28 years old, with the mean age being 21 years old. The racial makeup of the participants included 76% white/caucasian, 12% African American, 6% Asian, and 4% multi-racial.

Measures

The measures used for gender identification were derived from the conformity to masculine/feminine norms indices (Mahalik et al., 2003; 2005). As previously discussed,
these measures contain questions dealing with criteria that Mahalik and his colleagues have found to be aspects of conformity to each gender. The masculine norms include winning, emotional control, risk taking, violence, dominance, playboy, self-reliance, primacy of work, power over women, disdain for homosexuals, and pursuit of status (Mahalik et al., 2003). The feminine norms include nice in relationships, thinness, modesty, domestic, care for children, romantic relationships, sexual fidelity, and invest in appearance (Mahalik et al., 2005). The actual items used in the study were derived from the gender conformity scales, but have been adjusted to meet the needs of the study. In other words, because automatic responses to individual words or short phrases were measured, entire sentences and Likert scale items could not be used. Instead, terms that matched the traits Mahalik et al. (2003; 2005) determined to be masculine and feminine were developed and used to gather automatic responses.

The terms developed to match the CMNI and CFNI (2003; 2005) are as follows: emotional, controlling my emotions, value winning, ok with failing, aggressive, assertive, violent, peaceful, persistent, ambitious, working hard, taking risks, showing feelings, in control, hiding feelings, independent, dependent on others, competitive, status-oriented, strong, soft, caring for others, work on relationships, enjoy relationships, enjoy children, care about looks, seeking attention, enjoying attention, romantic, proud, modest, enjoying home, having several partners, being in charge, asking for help, put work first, ok with losing, bragging, cleaning my home, good with kids, concerned with appearance, nice, stay in touch, submissive, focus on relationships, and wearing makeup.

Computer software was used in order to track the speed of responses to gender-
conformity items. For each item presented on the computer, participants were asked to respond with either “me” or “not me,” which determined whether or not participants agreed that each term presented described themselves or not. The timing aspect allowed automatic response data to be collected and also allowed for a more sensitive measure of gender conformity, rather than explicitly self-reported gender-conformity. As per research on implicit and automatically accessed attitudes, quicker responses can be classified as more automatic, thus representing a stronger feeling of said trait potentially due to increased salience.

**Stimuli**

The stimuli used in this study include various actual issues of popular magazines. The magazines chosen to appeal to women, and also thought to be linked to feminine identity and conforming to femininity, include *Cosmopolitan*, *Glamour*, and *Essence*. The magazines chosen to appeal to men and linked to masculine identity include *Men's Health*, *GQ*, and *Giant*. The most current issue of each magazine was used. By using only the most current issue participants were ideally prevented from not choosing a magazine because they had already read it. While some of this effect is inevitable in this project, this aspect at least controls for the problem somewhat.

As was stated in the literature review, *Giant* magazine reports a male readership rate of 50% (Giant, 2009), whereas other magazines report gendered reading as ranging from 72% to 92% either male or female. Unfortunately, Mediamark (2008) data reported no lifestyle magazine to be targeted and read specifically by African American males. There was no ideal choice for a magazine to fill this part of the stimuli, but the decision
to use *Giant* was based upon its 60% majority of African American readers, its median age of 29, as well as the fact that there was a male featured on the cover of the particular issue used and the headlines that were linked sufficiently to male-typed traits in accordance with Mahalik et al.'s (2003) masculine norms inventory.

**Procedure**

This experiment was made up of two parts and involved both an experimental group and a control group. The first portion of the study was designed to give information on demographics, baseline self-esteem and baseline gender conformity levels. Participants completed the first part of the study in a campus research laboratory.

For the first part of the study, participants scheduled a time to visit the campus lab. Upon arrival to the lab, participants were told that they would be asked some questions about themselves, and that they would answer the questions using the “z” and “/” keys. They also were told that they need to ensure that there is no distraction and that they must focus all attention on the questions at hand. After agreeing to such stipulations and signing consent forms, participants were first given an opportunity to get used to the accessibility measures by responding to non-experimentally related items.

After participants got used to the measurement procedure, they were asked to respond to items pertaining to gender-conformity. The gender-conformity items were derived from the terms described by Mahalik et al. (2003; 2005) as masculine and feminine, as are previously listed. Participants all responded to both masculine and feminine-typed items, regardless of their sex. These terms were presented to participants in a random order to as to prevent any order-related effects.
The very last questions that participants were asked during part one of the study were related to demographics. The purpose of this design was to ensure that gender, age, and ethnicity were not primed at all when participants were responding to gender conformity items. Demographic questions included age, sex, and race/ethnicity. After answering all questions, participants signed up for extra credit and were given directions as to how they could sign-up for part two of the study.

Approximately one week after participants completed part 1, they reported to the laboratory one at a time. Participants were read the following script upon entering the lab:

“Welcome to our study on how people describe themselves. You can hang your things here, and make sure your cell phone is off or on silent to prevent any distractions (directing participants to wall hooks). You'll be asked some questions about how you describe yourself. Unfortunately, the computer just froze and I have to set up the software again. It's not a big deal, but it's going to take at least five minutes for it to be ready. While you wait you can have a seat in the waiting area. Feel free to read one of the magazines while you wait (directing participants toward waiting area).”

After approximately five minutes elapsed the script continued as follows. “The software is ready now. Please follow me to the computer where the procedure will take place. This will be very similar to what you did in the first session. You will respond to some words that may or may not describe yourself. We are interested in your spontaneous responses. You'll use these two keys (showing participants the keys). Please keep your index fingers
above the keys to enable you to respond quickly. Respond as quickly as possible but not so fast that you make mistakes. Again, you'll have a practice task to get you used to the procedure before the actual questions begin. You're going to be asked for the last four digits of your cell phone number again, and it's very important that you enter the correct information.”

The participants in the control group were read the same script, except that instead of being told that they would answer questions describing themselves, they were told, “You will be looking at some texts and will then respond to them.”

While respondents waited to be sent to a computer, they sat in a room designed to look like a sitting room, including couches, a television, and a coffee table. Unbeknownst to participants, they were being videotaped while in this room in order to see what magazines they choose to read and how long they spent on each magazine. The camera was placed behind a two-way mirror so that participants were unaware that they were being recorded.

The magazines were laid out on the coffee table in a fashion such that no covers were obscured from vision and so that participants could clearly see all covers. They were also arranged so that they were all facing the same direction, which is so that participants could read all covers. The magazines were laid out across the table in the following order: *Cosmopolitan, Glamour, Essence, GQ, Men's Health*, and *Giant*. With this layout the magazines were actually organized by gender. Magazines were reorganized after each participant completed the session, thus ensuring that each
participant was presented with the same table of magazines. See Appendix A for images of the covers of all six magazines used as stimuli in the experiment.

After five minutes participants were told that the computer was ready for use and they were taken to a private computer. The test given to participants in the second session was exactly the same as the test that they were given in the first session. Again, participants were given instructions on choosing either “z” or “/” for “me” or “not me” and they were given a few non-related questions in order to get them used to the measurement method. These items included gender conformity items for both male and female indices and again were presented in a randomized order so as to prevent any ordering effects. Demographic questions were asked again, with the only purpose being to ensure that all data could be linked from part one to part two.

In part two of the study, after responding to gender conformity items and demographics, participants were also asked to report which magazines they prefer to read. The list of options was compiled from Media Mark (2008) data, and includes magazines that share the same median age as the experimental stimuli and therefore would most likely be read by the college-aged participants. These magazines include: Auto Week, Cosmopolitan, Essence, Glamour, GQ, Marie Claire, Maxim, Men's Health, Shape, and Sports Illustrated.

Upon answering all questions, the computer notified the participant that the experiment was complete. All participants were debriefed at this time, which included informing them that they were deceived when summoned to the waiting area and that their activity in the magazine-reading portion had been recorded on a video tape. At this
point participants were allowed to either choose to keep their data in the experiment, or
opted out of the study and their data and videotape were destroyed and no longer
included in the data set for the study.
Chapter 4: Results

Results are broken down into various statistical analyses that were conducted. Overall results were mixed and some were not quite as expected in the hypotheses, as is explored statistically.

Preliminary Analyses

As the experiment at hand includes exposure to magazines, as well as the optional selective exposure to these magazines, it is first important to establish whether or not participants did in fact choose to expose themselves to the media at hand. First, 2 of the 50 participants who completed both parts of the study took the option to not include their data in further analysis, which left 48 complete sets of data. Of the 48 participants who completed both parts of the study, 35 of them (73%) chose to select a magazine and therefore expose themselves to this media, whereas only 13 of them (27%) did not open a magazine. While it was anticipated that all participants would choose to read a magazine, this data does lend to the fact that comparisons between the media-exposed and unexposed may be analyzed.

Before conducting further statistical analysis on gender conformity measures and accessibility, single items within the gender conformity scale were individually analyzed based upon variance among responses. This analysis was conducted in order to determine which terms were responded to with very little variance among the entire group of
participants. This is especially necessary due to the fact that this scale has never been used before. From this analysis, several terms that were a part of the gender conformity scale were removed from data analysis.

Because items were responded to on a 0-1 scale (0 corresponding to “not me” and 1 corresponding to “me”), items with means that were closest to 0 and 1 were removed. Additionally, certain items that had means indicative of variance but that did not show to be grouped with other items very strongly during preliminary factor analyses were also removed. The items that were removed included: violent ($M = .03$), bragging ($M = .10$), having several partners ($M = .17$), dependent ($M = .17$), submissive ($M = .23$), ok with failing ($M = .30$), aggressive ($M = .33$), ok with losing ($M = .45$), competitive ($M = .85$), persistent ($M = .88$), focus on relationships ($M = .90$), value winning ($M = .90$), independent ($M = .97$), working hard ($M = .97$), strong ($M = .97$), peaceful ($M = .98$), and caring ($M = .98$).

From this elimination the list of items to continue analyses were derived, including: hiding feelings ($M = .50$), wearing makeup ($M = .50$), status-oriented ($M = .52$), concerned with appearance ($M = .58$), put work first ($M = .62$), soft ($M = .65$), emotional ($M = .65$), ask for help ($M = .68$), cleaning my home ($M = .77$), show feelings ($M = .77$), taking risks ($M = .78$), in charge ($M = .80$), controlling my emotions ($M = .80$), good with kids ($M = .83$), in control ($M = .85$), and staying in touch ($M = .85$).

In order to classify responses as either masculine or feminine in accordance with the data at hand, a factor analysis (principal component, varimax rotation, with four factors as extraction criterion) was used to group terms. Of the four groups emerged from
the factor analysis, two pertained to feminine traits: (a) emotional, cleaning my home, hide feelings (reverse coded), show feelings, ask for help, and (b) soft, wearing makeup, and appearance. The masculine group of items includes being in charge, competitive, in control, and taking risks. The fourth group of factors that emerged as being related to social obligations includes staying in touch, being good with kids, status-oriented (reverse coded) and putting work first.

By finding the factors that were oriented with each other, two indices were created and deemed gender conformity variables. The masculine terms were pulled together to form a masculine index whereas the feminine terms were pulled together to form a feminine index. These indices were used in further statistical analysis as classifications of whether any given participant was either high or low in gender-conformity.

General description of baseline data

As was previously stated, 73% of all participants selectively exposed themselves to magazines. From this group of participants analysis indicates a general description of the data, \( n = 35, M = 244.4, SD = 55.26, \min = 44.0, \max = 349.0 \), where the mean is time in seconds.

Descriptive statistics for femininity and masculinity scores during session one can be found in tables 1 and 2. These scores were measured on a scale from 0 to 1, where 0 indicates disagreement (“not me”) and 1 indicates agreement (“me”). Table 1 indicates descriptions of responses to femininity scores, and table 2 indicates descriptions of responses to masculinity scores.
Femininity

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>female</td>
<td>30</td>
<td>0.775</td>
<td>0.175</td>
<td>0.250</td>
<td>1.000</td>
</tr>
<tr>
<td>male</td>
<td>18</td>
<td>0.514</td>
<td>0.260</td>
<td>0.130</td>
<td>0.880</td>
</tr>
<tr>
<td>all</td>
<td>48</td>
<td>0.677</td>
<td>0.244</td>
<td>0.130</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Table 1: Baseline femininity scores.

Masculinity

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>female</td>
<td>30</td>
<td>0.783</td>
<td>0.306</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>male</td>
<td>18</td>
<td>0.847</td>
<td>0.229</td>
<td>0.250</td>
<td>1.000</td>
</tr>
<tr>
<td>all</td>
<td>48</td>
<td>0.807</td>
<td>0.279</td>
<td>0.000</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Table 2: Baseline masculinity scores.

Measures of accessibility include response times in milliseconds. This indicates the speed at which participants responded to gender conformity items, whereas quicker responses indicate greater accessibility to these traits. Tables 3 and 4 give descriptive data pertaining to baseline accessibility scores.

Feminine Accessibility

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>female</td>
<td>30</td>
<td>1319.779</td>
<td>301.842</td>
<td>875.500</td>
<td>1985.000</td>
</tr>
<tr>
<td>male</td>
<td>18</td>
<td>1508.812</td>
<td>270.860</td>
<td>1113.250</td>
<td>2140.880</td>
</tr>
<tr>
<td>all</td>
<td>48</td>
<td>1390.667</td>
<td>302.168</td>
<td>875.500</td>
<td>2140.880</td>
</tr>
</tbody>
</table>

Table 3: Baseline accessibility to feminine gender-conformity items.

Masculine Accessibility

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>female</td>
<td>30</td>
<td>1244.533</td>
<td>260.965</td>
<td>793.000</td>
<td>1705.000</td>
</tr>
<tr>
<td>male</td>
<td>18</td>
<td>1224.250</td>
<td>253.551</td>
<td>917.250</td>
<td>1994.500</td>
</tr>
<tr>
<td>all</td>
<td>48</td>
<td>1236.927</td>
<td>255.680</td>
<td>793.000</td>
<td>1994.500</td>
</tr>
</tbody>
</table>

Table 4: Baseline accessibility to masculine gender-conformity items.

Selection of magazines

Knowing that media exposure did occur for 73% of participants, the first hypothesis deals with whether or not men and women do in fact select media as research
proposes that they will, which in this case means that females would be expected to choose feminine-typed magazines and males would be expected to choose masculine-typed magazines. In this case, *Cosmopolitan, Glamour,* and *Essence* were classified as feminine-gendered magazines and *GQ, Men's Health,* and *Giant* were classified as masculine-gendered magazines.

In order to test the first hypothesis that male participants would choose masculine-typed magazines and female participants would choose feminine-typed magazines, analyses of variance were conducted (ANOVA). Results indicate that female participants spent significantly more time exposing themselves to feminine magazines than male participants did, $F(1, 22) = 33.78, p < 0.001$, male $M = 0.0$, female $M = 176$, where $M =$ time in seconds. Similarly, results indicate that male participants spent significantly more time exposing themselves to masculine magazines than did female participants, $F(1, 13) = 18.51, p < 0.001$, male $M = 143.06$, female $M = 23.27$, where $M =$ time in seconds. These results support the first hypothesis that gender-typed magazine exposure would occur due to selective exposure.

*Gender-conformity and accessibility influence on magazine selection*

The second set of hypotheses predicted that participants who reported greater gender conformity ("me" or "not me") through the first measure would be more likely to select gender-typed media during part two of the study, but this hypothesis was not supported by statistical data. A correlation between the reading of gender-typed magazine(s) in session two and gender conformity response means of either "me" or "not me" from session one indicates that while there may be some relationship, this is weak.
and shows statistical non-significance, $r = 0.197, p = 0.139$. Additionally, in contrast to what was predicted in hypothesis two, there were no links between accessibility during baseline measures and gender-typed magazine selection for either men, $r = 0.049, p > 0.7$, or women, $r = -0.165, p > 0.2$.

**Gender conformity changes from test 1 to test 2**

The third set of hypotheses predicted that exposure to gender-typed magazines would increase gender conformity responses. However, results did not show that any significant change in gender conformity responses were dictated by exposure to gender-typed magazines. All participants who selectively exposed themselves to gender-typed media were analyzed using an analysis of variance (ANOVA) in order to measure if mean differences were significant enough to show that magazines had an effect, but this result showed to be non-significant, $F(1, 35) = 0.67, p > 0.1$.

**Accessibility changes from test 1 to test 2**

Continuing with the third set of hypotheses, it was also proposed that gender-conformity accessibility would increase after exposure to gender-typed magazines, therefore decreasing response times from time 1 to time 2. The results indicate that this hypothesis is supported, as was found through regression where whether or not a participant read his or her gender-typed magazine was looked at as a predictor of the difference in mean response times between the first session and the second session, controlling for gender, reading of the opposite-gender’s magazine(s), looking at magazine covers, and the mean difference between one’s own gender-conformity responses (0 to 1) and the opposite sex. These results show that participants who read a gender-typed
magazine had decreased response times, thus showing increased accessibility to their own gender-typed traits, \( \beta = -0.320, p < 0.05 \).

Differences between conditions

Hypothesis four proposed that reminding participants that they are in a study pertaining to their own self-descriptions would play a role in gender-conformity levels, but tests indicate that this condition is irrelevant. In order to measure the difference between the two conditions, an analysis of variance (ANOVA) was used including condition and controlling for sex of participant. The test shows that the difference between condition is not significant, \( F(1, 48) = 0.005, p > 0.5 \). The results indicate that hypothesis four is not supported.

Influence of reported magazine use

In addition to data gathered through videotaping, participants were also asked to report what magazines they prefer to read, with the list of options including some typically gender-typed magazines. The fifth set of hypotheses predicted that there would be a positive relationship between self-reported preference for gender-typed magazines and gender conformity, as well as accessibility. With the female data it was found that some magazines are correlated in terms of readership, as well as a correlation between gender-conformity item accessibility and the preference of reading *Cosmopolitan*. For participants who reported reading *Cosmopolitan*, there is a correlation with their preference for *Glamour*, \( r = .583, p < 0.001 \). This represents that participants who report preferring *Cosmopolitan* typically prefer *Glamour* as well.

Even more interesting is the correlation between participants who report
preferring *Cosmopolitan* and the accessibility of responses to feminine-conformity items in the baseline measure, $r = -0.284$, $p < 0.05$. This is in line with what would be expected, which according to the fifth set of hypotheses is that female participants who report preferring a magazine such as *Cosmopolitan* should actually have higher accessibility of gender-conformity items, thus decreased response times. No correlation was found between gender conformity responses (“me” or “not me”) of females and the self-reported preference for gender-typed magazines (*Cosmopolitan*: $r = -0.013$, $p > 0.90$; *Essence*: $r = 0.030$, $p > 0.84$; *Glamour*: $r = -0.169$, $p > 0.24$).

The results of the same analysis for men was also fairly mixed. Whereas analysis of female participants found a link between the preference for *Cosmopolitan* and *Glamour*, analysis of male participants showed no such correlation between the preference for *GQ* and *Men's Health*, $r = 0.217$, $p > 0.10$. However, there was a relationship between magazine preference and both masculine gender-conformity item accessibility and gender-conformity responses. Self-reported preference for *Men's Health* was correlated with the accessibility of masculine gender-typed responses, $r = -0.403$, $p < 0.005$. This is in line with hypothesis four and with female findings, where men who report to preferring this magazine have increased accessibility and decreased response times.

For male participants, results show that there is a positive correlation between preference for both *Men's Health* and *GQ* and masculine gender-conformity responses. This correlation is strongest for *Men's Health*, $r = 0.403$, $p < 0.005$, but also present for *GQ*, $r = 0.335$, $p < 0.05$. This data supports hypothesis five in that it shows that male
participants' self-reported preference for gender-typed media is related to their gender conformity responses (“me” or “not me”).

**Review of results**

To review the results briefly: hypothesis one was confirmed with males and females opting to read their own gender-typed magazines, hypothesis set two was not supported and gender conformity responses as well as accessibility of the traits did not affect magazine selection, and hypothesis set three was partially supported as accessibility was affected by magazine exposure but gender conformity responses were not. Results showed that condition was irrelevant in predicting results.

In terms of self-reported magazine preference, there was a relationship between baseline gender conformity accessibility and female participants' preference for *Cosmopolitan*. There was also a relationship between baseline conformity accessibility and male participants' preference for *Men's Health*. While female participants had no link between baseline gender conformity responses and magazine preference, men who preferred *Men's Health* and/or *GQ* had increased gender conformity scores (“me” or “not me”).
Discussion

To restate the hypotheses in summary, what was expected to be found through this study was that each sex would be more likely to selectively expose themselves to their own gender-typed magazines than the opposite gender-typed magazines, that participants should be more likely to selectively expose themselves to corresponding gender-typed media the higher their gender-conformity and accessibility are, that gender-typed magazine exposure would increase gender-conformity and accessibility, that the experimental condition would produce greater gender-conformity, and that participants who self-report preferring gender-typed magazines would have higher gender conformity as well as greater accessibility. As was described in the results section, the statistical analyses revealed findings that were not always completely in line with what the theoretical background and hypotheses predicted.

Magazine Selection

The first hypothesis was found to be supported, whereas gender-typed selective magazine exposure did certainly occur. What this means is that when participants were summoned to the waiting room in the second part of the study, females were extremely likely to select magazines to which they are the target audience, and likewise for males. To review, this translates to females opting for *Cosmopolitan, Glamour*, and/or *Essence*, and males opting for *GQ, Men’s Health*, and/or *Giant.*
As was discussed in the methods section, it was difficult to find a magazine targeted toward African American males that was also lifestyle focused, and *Giant* magazine managed to meet the criteria only somewhat. Even though its reported readership was half male and half female (Giant, 2009), no females in this study chose to read said magazine. It is likely that this magazine worked well for two possible reasons. The first reason may be that it was grouped with other masculinity-oriented magazines on the table, so it was clear to participants that it was targeted at males. The second reason may be that this particular issue of the magazine showed a very masculine male on the cover. As has previously been discussed, people tend to pick protagonists, in this case cover models, similar to themselves. This could explain why the magazine worked as well as the other more strongly male-targeted magazines.

As is noted in the results, the entire group of participants did not chose to expose themselves to magazines; that is not all participants actually picked up a magazine and read it. In addition to coding what magazines participants looked at, it was also noted that some participants chose to do other tasks while in the waiting area, and these tasks may or may not have included looking at the magazine covers. To describe this in further detail, there were two types of exposure to magazine covers as dictated by participant behavior. For the participants who did choose to pick up and open a magazine, they typically briefly glanced at the magazine covers on the table and quickly chose which they would read. However, some participants spent time simple looking at the covers from where they were sitting in the waiting room. Additionally, other participants performed activities such as looking around the room or simply sitting idly.
Base gender-conformity and gender-typed magazine exposure

The second set of hypotheses stated that participants with higher gender-conformity responses and greater accessibility would be more likely to pick up gender-typed magazines, but this was not shown to be statistically significant. A probable cause for this finding is that there was very little variance in whether or not participants chose gender-typed magazines in the first place. Since nearly all participants, whether low or high scorers on gender conformity measures, chose magazines aligned with their own gender there is very little room for variance between high and low scorers in terms of gender-conformity responses and the speed of these responses. This result does not rule out that perhaps conformity predicts selective exposure, and results could potentially be found if the sample size was larger, especially based upon the nearly significant $p$-value.

Additionally, it is important to consider how results may have differed if some gender-neutral magazines had been used. The original decision to not include these magazines was due to the idea that perhaps no magazine is truly gender-neutral. However, if these had been included perhaps more differentiation in the results would have occurred allowing comparisons not only between gendered reading and no exposure, but between gendered and non-gendered reading. Future research should address this issue.

Magazine effects on gender-conformity and accessibility

The third set of hypotheses proposed that participants who selectively exposed themselves to their own gender-typed magazines would have decreased response times and increased accessibility, as well as increased gender-conformity scores, in the second
part of the study then they did in the baseline measures. The results to these hypotheses gives important information regarding the variance of response times versus gender-conformity responses (“me” or “not me”).

First, there was evidence that response time would decrease after exposure to gender-typed magazines had occurred, in accordance with hypothesis 3B. This is very promising for future research on gender conformity and accessibility, and also shows how influential print media can be on its readers. With exposure times at a maximum of five minutes, one has to wonder what sort of effects a longer exposure can cause. If participants had been given time to read the entire magazine results may have been even stronger.

Also of importance were the results pertaining to gender conformity response changes as proposed in hypothesis 3A, which were not supported and therefore show that responses are not likely to change after exposure. Upon looking back at the research on how gender values and socialization form, this result is not entirely surprising. Since gender ideals typically show little variance over time as they are ingrained values, it makes sense that participants would have the same responses over the course of approximately one week, from the first test to the second test.

Even though hypothesis 3A was not supported, it gives pertinent information on the importance of measuring accessibility. If this study had included only gender-conformity responses, it may have appeared that gender-conformity was not affected at all. However, by including the accessibility measures it became clearer how even though responses may not change, the accessibility of these responses does change.
The influence of conditions

Hypothesis four predicted that changing the researcher's language pertaining to the study would be able to heighten gender-awareness and change gender-conformity responses and accessibility. In order to control for this potential effect, half of the participants were told that they would be responding to some texts rather than being reminded that the study is about how they describe themselves. Results show that this condition had no effect on gender-conformity measures.

While this may seem non-significant, it potentially shows how gender expectations are constantly salient in the minds of participants, even if subconsciously. Perhaps if gender was not so salient then this reminder of the purpose of the study would have increased effects. Instead, since gender is such a force in society and so strongly dictates how males and females behave, these values and ideals are constantly present and part of one’s behavior and personality.

While it seems unlikely that the gender-conformity responses would change in such a short period of time based upon the results at hand, it would be interesting to look at the effect of a stronger, or more present, manipulation. The present manipulation was based only on words spoken by the researcher and thus did not have very much influence. With more experimentation and pre-tests future research could manipulate this better and discover if there really is more to experimental manipulation than this study was able to find.

Reported magazine preference and gender-conformity

The fifth set of hypotheses dealt with participants' self-reported magazine
preferences, and as is described in the results section, there were some expected results and other unexpected results. It was not surprising to find that participants who reported preferring *Cosmopolitan* also significantly reported preferring *Glamour* as well. This link was not found between *GQ* and *Men's Health*. This is potentially due to the idea that *Cosmopolitan* and *Glamour* share the themes of beauty and relationships/sexuality, but *GQ* and *Men's Health* differ in that *Men's Health* is focused on the male body and *GQ* is focused more on fashion and living the good life, so to speak. Even though all magazines show to be gender-typed in terms of readership data, perhaps this represents that male readers choose more specific topics and that there are increased niche markets for this target audience.

It was also expected that preference for gender-typed magazines would be related to increased gender-conformity, and this result was supported for men but not women. As will be discussed in further detail in general discussion, this is probably due to issues with measurement of male gender-conformity.

Another promising finding in this area is that both *Cosmopolitan* and *Men's Health* readers had lower response times to corresponding gender-conformity items, thus showing increased accessibility of gender-conformity items in the first test. This is promising because while decreased response times from time one to time two show short term effects, this information gives evidence that there may be potential longer-term effects of attending to these gender-typed magazines. Of course it is unknown if this is completely causal, but by looking at the combination of this result and the decreased response times in test two, this is definitely something to be explored.
General Discussion

As has previously been discussed, the research at hand is something that is very unique in the communication field and in social science research in general, and because of this there are naturally issues and unanticipated results to deal with. While working with new ideas and measures is exciting and innovative, it also brings some drawbacks. The primary limitation is within the measurements used, in terms of the items that were derived from Mahalik et al.’s (2003; 2005) conformity inventories. Based upon the item variance analysis and factor analysis, the list of items was not perfect, nor is the original list of conformity traits.

The variance analysis first showed that several items had little variance among all participants. This could be due to either the measurement itself or the set of participants. Perhaps the feminine measurements would have worked well on women who were older and in more domestic roles rather than women who are working to obtain degrees at a university. The female participants in this study showed that they conformed to certain masculine traits that could be said to be positive attributes in a university setting, such as putting work first and being persistent. Likewise, male participants agreed that they conformed to certain feminine traits such as being nice or being good with children. Additionally, there were certain variables than neither sex wanted to define themselves as, such as violent.

After factor analysis, the femininity items seemed to be more promising and definitive than masculinity traits. One way to find meaning in this is to explore the idea that maybe the CFNI is simply a better measure of femininity than the CMNI is of
masculinity. Especially with this sample, the masculinity traits are sometimes beneficial to have in a work setting, as well as in a career setting. Since it is likely that many of the female participants are aspiring to have careers, this becomes a relevant idea to consider.

Besides measurement issues, there were also other limitations. The small sample size was definitely a limitation, and it is likely that with more participants stronger results could have been found. This is especially true for male participants since they were a small percentage of the total participant base. With more male participants it is even possible that the conformity items that were developed would have resulted as being more promising measures. In general though, it is likely that certain statistical analyses that showed to be non-significant could have been significant if there were an increased number of participants.

In defense of the present research and its lower number of participants, the fact that many significant relationships were found speaks highly for the strength of these relationships. If such a small number of participants could show such results, then one must question what a larger group would show. Future research could easily address this.

Another minor limitation to the study lies in accessibility measures, whereas in this study there really was no standard for what baseline response times should be. This comes to be an issues in statistical analysis, because there is so much variance in response times and it is difficult to make connections from this variable to others.

The last significant limitation deals with the participants and the fact that even when they are directed to a room where they may read a magazine, many of them choose to not follow directions and do other activities. While it was beneficial that this provided
for somewhat of a control group against those participants that read magazines, it is impossible to know what these non-reading participants were thinking or how other small activities, such as text messaging, may have influenced them. It was thought that this methodology would cause participants to follow directions and likely even read a magazine, and while having 73% of the participants doing what is anticipated is good, it is not perfect. A better manipulation needs to be in place to where participants are not made aware that their magazine exposure is being observed while still increasing the likelihood that they will choose to selectively expose themselves to the stimuli.

Again, the research at hand is something rather unique. The most unique aspect is measuring gender on a continuum rather than as a dichotomous variable, and this is something that has very rarely been done in the communication field. Additionally, the measurement of the accessibility of gender conformity traits through timed responses has never been used in the field. The results that have been found, although not as strong as they could be, do hold important implications. First and foremost, this is highlighting the importance of measuring gender, particularly accessibility of these traits, instead of biological sex. With the importance of sex as a variable in communication research, but the common trend that sex cannot explain 100% of variance, gender may help in explanation. Perhaps what is most important is not the sex of participants, but rather the amount that they conform to and identify with the traits that are associated with their sex, known as gender. While measuring gender conformity is much more tedious than simply asking a participant whether they are male or female, it could provide such a huge amount of insight into why all variance is not explained by sex differences.
One very important implication that results from the support of the hypotheses lies in the possible effects of gender-typed media. With the accessibility of gender-conformity being increased after participants' exposure to gender-typed magazines, this is a huge implication for how these magazines are perpetuating gender conformity in our culture. While all gender conformity is not necessarily a negative thing, in some ways it is arguably a deterrent to moving forward for both men and women. If reading a gender-typed magazine for one five-minute sitting can have conformity effects, then it is only imaginable what an effect habitual and frequent reading of these magazines can have. As results have shown, accessibility is increased for participants who self-reported preference for these magazines. The combination of these two factors, while not terribly strong on their own, gives way to the need for more research on this topic.

The present research gives a great deal of direction for future research in this topic area. Primarily it provides better guidelines as to which aspects of the gender conformity indices need to be eliminated, as well as which traits seem to be separated from either gender and instead classified as socially acceptable. Additionally, it gives evidence that gender conformity responses are likely static through time, and therefore in order to measure any changes it is best to use accessibility and response time. Overall it can be concluded that the study gives support for the use of response-time measures of accessibility, as it has been found that these times do change and that individuals' baselines may also hold meaning. Defense for the entire concept of gender-conformity has also been found, as it is apparent that all female or male participants certainly do not respond the same, and with the same speed, to all measures.
References


Hawkins, R. P., Pingree, S., Hitchon, J., Gorham, B. W., Kannaovakun, P., Gilligan, E. et


Peter, J. & Valkenburg, P. M. (2007). Adolescents' Exposure to a Sexualized Media Environment and Their Notions of Women as Sex Objects. *Sex Roles, 56*, 381-


Appendix A: Stimuli

Covers of magazines: