The Impact of the Magazine Representations of Women on Young Female Audiences’ Career Interests

Thesis

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By

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Abstract

This study examined how the prolonged exposure to representations of women in mainstream magazines influenced young female audiences’ career interests. Based on Social Cognitive Theory, it was hypothesized that the exposure to the stereotypical magazine portrayals of women in conventional social roles led to the reinforcement of gender-typed career interests among female audience whereas those who were exposed to the counter-stereotypical images of women in professional roles led to the formation of non-gender-typed career interests. In addition, participants’ self-efficacy for career achievement and perceived similarity to the magazine portrayals were also taken into account as the essential moderators. The prolonged exposure experiment among female college students partially supported the hypotheses. The alternative theoretical explanation and the methodological limitations of the research were then discussed.
Dedication

Dedicated to my parents
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Chapter 1: Introduction

As an essential institutional system for socialization, mass media are constantly filled with representations of femininity, masculinity and gender relations (Gill, 2007), which has crucial influence on individuals’ cognitive understanding and conceptions of gender. As Douglas Kellner (1995, pp. 1) said, “Radio, television, film and other products of the culture industries provide the models of what it means to be male or female, successful or a failure, powerful or powerless...media culture helps shape the prevalent view of the world and its deepest values: it defines what is considered good or bad, positive or negative, moral or evil.” In particular, with the media containing so many images of women and men, and messages about men, women and sexuality today, it is highly unlikely that these ideas would have no impact on our own sense of gender identity (Gauntlett, 2008). The increasingly popular research area of gender representation and media effects has not only revealed how individuals are socialized by mass media in terms of gender conceptions but also demonstrated how media construct the gender norms and structures in the larger social system (Garst & Bodenhausen, 1997; Knobloch, Callison, Chen, Fritzsche & Zillman, 2005; Ward, Hansbrough, & Walker, 2005; Saito, 2007). Previous studies have examined how media portrayals of women and men influence various components of gender identity including conceptions of femininity and masculinity (Garst & Bodenhausen, 1997; Ward et al., 2005), self-confidence
(Jennings et al., 1980), and body-esteem (Lavine, Sweeney, & Wagner, 1999; Botta, 2003; Frisby, 2004). However, little scholarly attention has been paid to the relationship between individuals’ media exposure and their career interests, which is another important aspect of gender identity and self-concept.

Career interests have long been considered as a core factor affecting educational choices (e.g., Benbow & Minor, 1986; Hansen & Sackett, 1993; Lapan, Shaughnessy & Boggs, 1996), degree completion (e.g., Webb, Lubinski, & Benbow, 2002), occupational choices (e.g., Fouad, 1999; Parsons, Adler, & Meece, 1984; Strong, 1943), and job satisfaction (e.g. Morris, 2003). Especially, researchers have empirically detected that career interests of young adults predict their later occupational attainment, prestige and future earning (Marini, 1978; Marini & Brinton, 1984) and thus have significant impact on individuals’ personal achievement and fulfillment. Partially because of its social significance for individuals, the construct of career interests has been conceptualized by different scholars from diverse perspectives. For example, Holland (1966) defined vocational interests as “the expression of personality in work, hobbies, recreational activities, and preferences”. He thought an individual’s interests were fundamental to the process of career development because individuals tended to seek environments in which they could express their interests (Holland, 1997). Alternatively, Eccles-Parson (1983) proposed interests as important determinants of individuals’ achievement motivation and career choice which were influenced by the socialization process. Moreover, Hogan and Blake (1999) saw career interests as a direct expression of an individual’s identity rather than outgrowths of personality development. This concept was thus best conceptualized
in terms of a person’s motives, goals, values, and interests (Hogan & Roberts, 2000). Despite the conceptual and terminological differences among these theories, their common ground is the recognition of career interests as integral to one’s identity and an expression of one’s attempt to find opportunities that match their identity (Su, Rounds, & Armstrong, 2009). As an inseparable part of self-identity, interests serve as the impetus for individuals to navigate through and function effectively in their environments (Su et al., 2009). More specifically, career interests are a key contributor to the formation and maintenance of people’s gender role identity (Eccles-Parsons, 1983; Gottfredson, 1981; Tyler, 1955; Su et al., 2009).

In fact, sex and gender difference in career interests has always been a central issue to both the educational and vocational research traditions. Previous literature has demonstrated that as some of the most important aspects of their lives, the occupational paths people pursue are heavily prescribed by societal gender-typing (Bussey & Bandura, 1999). Results obtained from various interest inventories (Campbell, 1974; Hansen & Campbell, 1985; Harmon, Hansen, Borgen, & Hammer, 1994; Donnay, Morris, Schaubhut, & Thompson, 2005) have documented sex difference in vocational/career interests over the past thirty years. There is also substantial evidence that the occupational pursuits of young people in the United States are highly gender-typed in particular (Jacobs, 1989; Marini & Brinton, 1984; Shu & Marini, 1998). Generally, women are more likely than men to indicate interest in social and artistic activities, whereas men are more likely than women to indicate interest in scientific, technical, and mechanical activities (Betz & Fitzgerald, 1987, Su et al., 2009). Mainstream gender role norms tend
to be internalized by the individuals as their own interests and goals of career and personal activities as a whole.

Such gender difference based on social role standards has long been charged to have possible detrimental effects on capabilities of both men and women (Broverman Vogel, Broverman, Clarkson & Rosenkrantz, 1994; Bussey & Bandura, 1999). Gender-typed career interests are seen as one of the most important variables that lead to the “sex segregation” (Gross, 1968) in different occupations, which restricts people’s potentials to enter and achieve success in a broader range of occupations. Women are especially subordinated by this process. Statistical results show that men and women are still segregated in different occupations, with women concentrated in what is often described as low-grade, low-paid work (Hakim, 2004). As Sinclair (2005) pointed out, “women’s employment is segregated, horizontally, in a limited range of occupations and of jobs within occupations, and vertically, at the bottom of the occupational ladder. Such segregation almost invariably corresponds to lower earnings… for women and is accompanied by a division of labor within the home which accords women the major share of childcare and other domestic labor. (Sinclair, 2005, pp.1) ” In this sense, for the purpose of achieving gender equality and diversity in the labor market, women’s career interests are crucial for us to scrutinize. It is necessary to reveal how such career interests are developed and to what extent they are influenced by the gender norms and ideologies constructed in the mainstream society.

Since mass media play a crucial role in the socialization of individual’s identity-related issues including gender role learning and occupation preparation (Arnett, 1995), it
is important to explore whether and how media representation contributes to the formation, maintenance, and transformation of audience’s gender role attitudes, which in turn determine their career interests. More importantly, research should focus especially on the longitudinal process through which the cumulative effects of media exposure influence individual’s gender beliefs and career goals.

The present study conducts a prolonged exposure experiment among female college students to test how media exposure reinforces or transforms young women’s career interests. Particularly, this study focuses on the exposure to mainstream magazines, which are one of the prominent sources for gender representations with a wide reach. Magazines are selected as the central concern of the present study in that it is not only one of the most feasible media stimuli for experimental research but also a representative of traditional media formats that, when converted to electronic versions, will continue to be widely disseminated among people in the internet era. Taking into account both gender-stereotypical portrayals and counter-stereotypical representation in the contemporary US magazine articles and advertisements, the present study applies Social Cognitive Theory to explaining the process through which female audience, as a population segment traditionally with limits in the achievement of professional careers (Epstein, 1970; Gerson, 1986), constructs, maintains or transforms their occupational role attitudes from magazine exposure.
Chapter 2: Theoretical Framework

2.1 Research Traditions in Media Impact on Gender Conceptions

In the social scientific tradition, the pioneering research in the impact of mass media on individuals’ gender role attitudes and gender self-concept initiated in Cultivation Analysis, which was developed originally by Gerbner in the project of “Cultural Indicators” (Gerbner, 1970). Cultivation Theory predicts the relationships between the social consumption of television messages and the stable, cumulative construction of reality among individuals (Gerbner, 1970). Cultivation’s core proposition argues that media exposure cultivates conceptions of reality in viewers which are congruent with the consistent and persuasive images and values presented in the medium (Shanaha & Morgan, 1999). Distinct from traditional focuses of communication research on the immediate, short-term effects of specific messages and contents, Cultivation Theory deals with the long-term, chronic influence of television messages and media content in general. Moreover, the cultivation of media is an integral aspect of a continuous, dynamic and ongoing process of interaction among messages and contexts (Gerbner, 1998).

As one of the leading approaches in the research of media and gender, Cultivation Analysis has provided evidence that mass media depict images of women and men in consistent patterns, which cultivate traditional gender conceptions into audience. The
cultivation approach has especially facilitated empirical survey research to conclude that heavy television viewers tend to hold more traditional gender role attitudes which are compatible with the stereotypic gender images shown in TV programs (e.g. Morgan, 1982; Signorielli, 1990; Signorielli & Lears, 1992; Lauzen & Dozier, 1999, 2002; Saito, 2007).

In recent years, researchers also detected significant influence of gender representation on audience’s gender conceptions in other media contexts such as magazines (Garst & Bodenhausen, 1997), music videos (Ward et al., 2005), and video games (Behm & Morawitz, 2009). Measuring media exposure by self-reported daily or weekly consumption time, these studies usually used survey questionnaires to investigate long-term, cumulative influence of exposure to stereotypical televised depiction of males and females. Overall these studies supported the cultivation hypothesis beyond the specific television context, associating the patterns of individuals’ gender role attitudes directly to the amount of exposure they had to certain type of media. From the cultivation perspective, people tend to internalize gender representation on television as their own gender role attitudes because they believe such representation reflects social reality. Several scales were developed to measure gender role attitudes, which are still being widely used in contemporary research (e.g. Morgan, 1982; Signorielli & Lears, 1992).

Although cultivation analysis has provided evidence for the association between individuals’ media use and their development of gender conceptions, it has several obvious limitations. First, cultivation analysis does not offer explanation for the processes through which television viewing influences people. While more recent research on
Cultivation analysis has captured some individual differences in people’s responses to distinct media messages with an emphasis on the genre-specific characteristic of mass media, Cultivation Theory still fails to detect the mechanisms underlying such processes. In other words, Cultivation Theory only demonstrates a series of interrelated phenomena but does not explore why such phenomena occur. Second, the core assumption of Cultivation Theory deals with media impact on audience’s perception on the reality as well their acceptance of certain values and beliefs. In other words, it mostly theorizes how media form people’s thoughts and knowledge about the outside world. Nevertheless, it offers few implications for media effects on the construction of people’s self-concepts and identities, which is the focus of the present study. Admittedly, Cultivation Theory does include some discussion on how mass media affect people’s perception on themselves, such attention is still not sufficient for understanding the ways in which mass media help form gender identity. There is, of course, no explanation for how media exposure affects people’s gender-linked career interests in Cultivation Analysis. As a result, the examination of such process will require the application of alternative theories that can provide more accurate and detailed explication for the ways in which mass media help construct individuals’ gender identity and career interests in particular.

2.2 Media Effects, Gender Development, and Career Interests: A Social Cognitive Perspective

This study will take Social Cognitive Theory (SCT) as the primary framework for understanding how viewing women’s images in magazines cumulatively influences female audience’s gender role attitudes and their own career interests. Compared to the
cultivation approach, Social Cognitive Theory is more relevant to the purpose of the present study because it has made contributions to all the three areas whose intersection this research stands at: 1) mass media effects; 2) acquisition of gender conception; and 3) career interest development. In this sense, Social Cognitive Theory should offer a comprehensive explication for the processes through which magazine exposure exerts influence on readers’ career interests on a gendered basis. The discussion of SCT will consist of five parts. The first part will discuss the basic proposition and core concepts raised by the original Social Cognitive Theory. The second, third, and fourth parts intend to focus on SCT’s theoretical contributions to the inquiries of mass media effects, gender development and career choice, respectively. The final section of this chapter will review two bodies of studies examining mediated gender representation and its effects on audience’s gender-related attitudes and self-concept to provide empirical evidence for the mechanisms proposed by Social Cognitive Theory.

2.2.1 Theoretical Propositions

While Social Cognitive Theory has been extended to explain various social phenomena such as mass media effects, acquisition of gender conception, and career interest development, it is necessary to first introduce the basic propositions of this theory which has theorized human behavior in general. Social Cognitive Theory is largely based on the Social Learning assumption that people learn how to behave by observing others (Bandura, 1969). In his extension of Social Learning Model to Social Cognitive Theory, Bandura (1986) proposed a more complex model of triadic reciprocal causality from an agentic perspective. In this agentic conceptual framework, human beings are understood
as “agents of experiences rather than simply undergoers of experiences (Bandura, 2001a, pp. 4).” Accordingly, human behavior is explained in terms of unidirectional causation, in which behavior is shaped and controlled either by environmental influences or by internal dispositions (Bandura, 1986). The sensory, motor, and cerebral systems are tools people use to accomplish the tasks and goals that give meaning, direction, and satisfaction to their lives (Bandura 1997, Harré & Gillet 1994).

On the other hand, Social Cognitive Theory emphasizes on the crucial role of environment as well. It proposes that human self-development, adaptation, and change are embedded in social systems (Bandura, 1986, 2001a). Therefore, personal agency operates within a broad network of socio-structural influences. In fact, personal agency and social structure operate as co-determinants in an integrated causal structure rather than as a disembodied duality (Bandura, 1986, 2001a).

From the agentic perspective, Social Cognitive Theory summarizes several cognitive, vicarious, self-regulatory, and self-reflective processes through which individuals acquire and adopt ideas, values and behaviors from the social environment (Bandura, 1986). Observational learning, or modeling, is undoubtedly one of the central modes of influence in Social Cognitive Theory. Since mass media offer numerous opportunities for symbolic modeling, as will be explained in detail soon, the modeling aspect of Social Cognitive Theory is therefore the focus of discussion here.

As Bandura (1986) has pointed out, modeling process is governed by four subfunctions. First, the attentional subfunction determines what is selectively observed in
the profusion of modeling influences and what information is extracted from ongoing modeled events (Bandura, 2001b). The influential factors of the exploration and selection of models include: 1) the cognitive skills, and preconceptions value preferences of the observers; 2) the salience, attractiveness, and functional value of the modeled activities; and 3) the structural arrangements of human interactions and associational networks (Bandura, 1986, 2001b). These social arrangements largely determine the types of models to which people have ready access (Bandura, 1986, 2001b).

The second subfunction governing observational learning is the cognitive representational processes. Retention involves an active process of transforming and restructuring information about events for memory representation in the form of rules and conceptions of styles of behavior. It is also greatly enhanced by symbolic transformations of modeled information into memory codes and cognitive rehearsal of the representation (Bandura & Jeffrey, 1973; Carroll & Bandura, 1990; Gerst, 1971). In this sense, recall involves a process of reconstruction rather than simply retrieval of registered events (Bandura, 2001b).

Furthermore, behavior production processes compose the third subfunction of modeling. In such processes, symbolic conceptions are translated into appropriate courses of action. This is achieved through a conception-matching process in which conceptions guide the construction and execution of styles of behavior and the adequacy of the behavior is judged through comparison against the conceptual model (Carroll & Bandura, 1990). The behavior is then modified, if necessary, on the basis of the comparative information to achieve close fit of conception to action (Bandura, 1986, 2001b).
Finally, the fourth subfunction concerns *motivational processes*. Social Cognitive Theory distinguishes between acquisition and performance of given styles of conduct because people do not perform everything they learn (Bandura, 2001b). The adoption of observed conduct is affected by three types of incentive motivators: direct, vicarious, and self-produced. On the one hand, people are motivated by the success or reward their models obtain from practicing certain conduct. As one of the essential incentive motivators, vicarious reinforcement suggests that individuals can observe and interpret the consequences experienced by a model and make inferences as to the likelihood of incurring these outcomes themselves (Fox & Bailenson, 2009). Rewards of the model serve as reinforcement while punishments are deterrents to imitation of a socially discouraged behavior. On the other hand, people’s own standards also regulate which observationally learned activity they are most likely to pursue themselves.

The theorization of the modeling process has laid the foundation for understanding how mass media use and magazine exposure in particular engage in individuals’ acquisition of certain behavior and ideas. It also indicates an important process through which people formulate gender identity, which includes their gender-linked career interests. The connection among social modeling, media effects and gender development will be discussed in greater detail in the following sections.

*Self-Efficacy Beliefs*

With the emphasis on the operation of such human agency in the triadic reciprocal causation, Social Cognitive Theory accords a central role to self-reflective and self-
regulatory processes in social modeling (Bandura, 1989). It stresses that cognitive agents regulate their actions by cognitive downward causation as well as undergo upward activation by sensory stimulation (Sperry, 1993). People can designedly conceive unique events and different novel courses of action and choose to execute one of them (Bandura, 2001a).

One of the most crucial mechanisms of personal agency pertains to beliefs of personal efficacy, or self-efficacy. Self-efficacy refers to “people’s judgment of their capabilities to organize and execute courses of action required to attain designated types of performances” (Bandura, 1986, pp. 395). As Bandura (1989) has pointed out, among the mechanisms of personal agency, none is more central or pervasive than people’s beliefs in their capabilities to produce given levels of attainments. Unless people believe that they can produce desired effects by their actions, they have little incentive to act or to persevere in the face of difficulties (Bussey & Bandura, 1999). Whatever other factors serve as motivators, they are rooted in the core belief that one has the power to produce changes by one’s actions. It is partly based on efficacy beliefs that people choose what goal challenges to undertake, how much effort to invest in the endeavor, and how long to persevere in the face of difficulties (Bussey & Bandura, 1999). Moreover, efficacy beliefs exert their effects through their impact on cognitive, motivational, and affective processes and on selection of activities and environments (Bandura, 1997).

According to Social Cognitive Theory, self-efficacy beliefs are largely determined and modified by four informational sources: personal performance accomplishments, vicarious learning, social persuasion, and physiological states and reactions (Bandura,
1986, 1997). Bandura (1997) theorized four major ways in which people’s beliefs in their efficacy were developed. First, graded mastery experience, or success, is the most effective way of building a robust belief in one’s personal efficacy. Especially, a resilient sense of efficacy requires experience in overcoming obstacles through perseverant effort (Bussey & Bandura, 1999). Second, social modeling itself enables observers to see how similar others succeed by sustained efforts, which raises their beliefs in their own capabilities. The third mode of influence is social persuasion, which means expressing faith in people’s capabilities. Bussey and Bandura (1999) proposed that social persuasion raised people’s beliefs that they had what it took to succeed. Finally, physiological state when performing a task may also inform efficacy judgments. Indicants of anxiety, fatigue, or depression during task performance may diminish inferred self-efficacy, whereas feelings of composure, stamina, or exhilaration may enhance perceived task proficiency (Lent, Brown, & Hackett, 1994).

As an essential personal factor in the social learning or modeling, people’s self-efficacy will be examined by the present study in terms of its potential moderating role in the process through which magazine exposure influence people’s gender-linked career interests.

Perceived Similarity

Based on the above discussion, we can argue that Social Cognitive Theory’s core assumption of the triadic reciprocal causation between human agency and environment is most clearly reflected from the relationship it proposes between social modeling and
individuals’ self-efficacy. On the one hand, self-efficacy beliefs, as the major mechanism of personal agency, largely engage in the process through which people turn their acquisition from observational learning to actual thoughts and behavior. On the other hand, self-efficacy is at the same time developed through social modeling. In this sense, self efficacy beliefs not only affect the impact of media representation but are actually established, maintained, and altered during media exposure. The process through which modeling influences self-efficacy beliefs is governed by several personal and contextual factors, among which perceived similarity is one caught attention by a considerable number of scholars. For example, Lent et al. (1994) pointed out that observing similar others succeed or fail at a particular activity (vicarious learning) might affect one’s self-efficacy, especially if one had had little direct experience upon which to estimate personal competence. Similarly, it is widely acknowledged that modeling affects self-efficacy beliefs through a social comparison process (Bandura, 1986, 1988; Wood & Bandura, 1989; Bandura, 1993). People partly judge their capabilities in comparison with others. Seeing people similar to oneself succeed by sustained effort raises observer’s beliefs in his or her own capabilities (Wood & Bandura, 1989).

SCT’s discussion on perceived similarity inspires the present study to specifically look at how audience’s perceived similarity to mediated gender portrayals tends to affect their understanding, reception and imitation of media representation.
Summary

The above-mentioned foundational propositions of Social Cognitive Theory have greatly inspired the understanding and examination of the social influence of mass media, people’s acquisition of gender conceptions and identity; and their development of career interests. These three areas are undoubtedly the concentration of this study which will explore how prolonged magazine exposure influence audience’s gender-linked career interests. In particular, the dynamics of modeling, self-efficacy, and perceived similarity has been drawn heavily by researchers in all those areas to build their specific theorization. The following sections will introduce the social cognitive perspective of media effects, gender development, and career choice, respectively.

2.2.2 Social Cognitive Theory of Mass Communication

The modeling aspect of Social Cognitive Theory provides a comprehensive conceptual framework for explaining how mass media influence human thoughts and behavior. This framework is used here for the understanding of the effects of magazine exposure in particular. In his crucial 2001 work, Bandura specifically theorized the effects of mass communication from the Social Cognitive perspective (Bandura, 2001b). He pointed out the unique property of modeling to transmit information of virtually limitless variety to vast numbers of people simultaneously through the medium of symbolic modeling (Bandura, 2001b). As the products of the rapid technological developments, print and electronic media create and display a wide range of symbolic models for values, beliefs, and social practices. Since symbolic modeling usually
functions as the principal conveyer of innovations to widely dispersed areas (Bandura, 2001b), mass media such as newspapers, magazines, radio, and television tend to “inform people about new practices and their likely risks or benefits (Bandura, 2001b, pp. 288).” Through the psychosocial determinants and mechanisms of observational learning proposed by Social Cognitive Theory, media audience are then able to acquire and internalize the modeled skills, knowledge, and ideas. It is yet important to note that Bandura’s core focus lies in the crucial role of mass media in the social diffusion of innovations.

Furthermore, Bandura has also proposed that people’s adoption of mediated models to their own practices is “highly susceptible to incentive influences, which may take the form of material, social, or self-evaluative outcomes” (Bandura, 2001b, pp. 289). In general, people tend to adopt the innovations based on how many benefits they can obtain from practicing it (Ostlund, 1974; Rogers & Shoemaker, 1971). Because many innovations serve as a means of gaining social recognition and status, status incentives are often the main motivators for adopting new styles and tastes (Bandura, 2001b).

While Bandura’s discussion focused mainly on the question of how mass media enabled the social diffusion of innovations, his application of Social Cognitive Theory to studying symbolic communication does offer rich insights for understanding how mass media also transmit values and beliefs on other dimensions, whether innovative or established, including those notions of gender and career interests.
2.2.3 Social Cognitive Theory of Gender Development

As for how people learn and acquire gender-related conceptions and identity, Bussey and Bandura (1999) presented the social cognitive theory of gender role development and functioning. They theorized the psychosocial determinants and mechanisms by which individuals’ gender conceptions were constructed and in turn operated to guide gender-linked conduct throughout the life course (Bussey & Bandura, 1999). The social cognitive perspective sees gender conceptions and role behavior as neither totally shaped and regulated by environmental forces nor by socially nonsituated intrapsychic processes. Rather, gender development is explained in terms of triadic reciprocal causation in which different personal factors operate as interactive determinants that influence each other bidirectionally (Bandura, 1986). Bussey and Bandura proposed three modes of influence that promoted the construction of gender conceptions: modeling, enactive experience, and direct tuition (Bussey & Bandura, 1999).

These different modes of influence operate in complexly interactive ways. Among these modes of influence, learning conceptions through modeling is seen as faster than from enactive experience (Bandura, 1986). Bussey and Bandura (1999) pointed out that a great deal of gender-linked information was exemplified by models in one’s immediate environment such as parents and peers, and significant persons in social, educational, occupational contexts, and mass media (Bussey & Bandura, 1999). Given comparable access, both sexes learn gender stereotypes from observing the different performances of male and female models (Bussey & Bandura, 1984, 1992). Repeated modeling of appropriate conducts for the two sexes takes place at home, in schools, in workplaces,
and in mass media to serve as a major conveyer of gender role information. Then during the self-regulatory process, people are more likely to adopt the modeled styles of gender-linked behavior if they result in valued outcomes than if they have unrewarding or punishing effects (Bandura & Barab, 1971; Hicks, 1968). Researchers have pointed out that for the most part, modeling is oriented toward promoting the traditional forms of gendered conduct. For instance, Bussey and Bandura (1999) argued that a social universe stratified and segregated by gender limited the opportunities to learn diverse styles of conduct and roles. They pointed out that in most Western societies organized around gender, there was no shortage of models displaying traditional gender conduct. The extent to which egalitarian roles are modeled varies in different societies and subgroups within them. In most societies, high social differentiation between the sexes makes differences in gender-typed behavior readily observable (Bussey & Bandura, 1999).

However, because of the changing views on gender in some quarters, there is increasing diversity in the different sources of influence, which do not always operate in concert (Bandura, 1986; Lorber, 1994).

While a lot of other theories including Gender Schema Theory emphasizes on gender development during childhood, Social Cognitive Theory proposes it as a lifelong process. Once children can differentiate the sexes, they prefer to attend more to same-gender than to other-gender models (Bussey & Bandura, 1984, 1992). This preference for same-gender models occurs irrespective of children’s level of gender constancy. After a more abstract conception of gender coupled with conditional outcome dependencies is
formed, gender conceptions and gender-typed learning operate as bidirectional influences (Bussey & Bandura, 1999).

As one of the major channels for symbolic modeling, mass media provides pervasive models of gendered roles and conduct. Bussey and Bandura (1999) linked media consumption to gender development by regarding media messages as one source for “the development of gender-linked knowledge and competencies,” which influenced perceptions of appropriate gender-based conducts, normative gender roles, self-evaluative gender-specific standards, and self-efficacy beliefs. By portraying the real and fictional people with power to gain rewards from their traits and behaviors in either articles or advertisements, media content, including magazine images, offers a variety of “role models” for the viewers to observe and emulate, suggesting and even teaching them how a woman or a man should look and act as well as what she or he should not do, be or think.

Indeed, Bussey and Bandura (1999) especially stressed the crucial role of mass media in the observational learning of gender. They mentioned that “although the immediate models that observers are exposed to can exert considerable impact, televised modeling has vastly expanded the range of models available to children and adults alike….Not only are the sexes sharply differentiated in the media, but their roles tend to be even more traditional than is actually the case (pp. 687).” Moreover, as has mentioned before, large amounts of existing literature does apply Social Cognitive Theory to empirically test media influence on the development of gender role attitudes and identity (Atkin, 1975; McArthur & Eisen, 1976; Miller & Reeves, 1976; Pingree, 1978; Behm &
Morawitz, 2009). It is thus reasonable to propose that in the social cognitive process women and men also acquire information about the most appropriate and rewarding occupations they should take from the mediated modeling.

2.2.4 Social Cognitive Theory of Career Interest Development

On the other hand, Social Cognitive Theory has also been applied to theoretically explaining the means by which individuals exert personal agency on the career development process. Pioneering theories, such as Krumboltz et al.’s (1976, 1990) social learning theory of career decision making and Hackett and Betz’s translation of self-efficacy theory to career development (1981), initiated the social cognitive inquiry of career development. However, a more comprehensive explication on the social cognitive theory of career and academic development was proposed by Lent, Brown, and Hackett (1994).

Lent et al. (1994) articulated a set of interrelated models of career interests, choice and performance from the social cognitive perspective. These models aimed to understand the intricate links among: a) the formation and elaboration of career-relevant interests; b) selection of academic and career choice options; and c) performance and persistence in educational and occupational pursuits (Lent et al., 1994). They not only highlighted the socio-cognitive mechanisms that exerted important influences on career development, but also theorized how other important person (e.g. gender) and contextual variables interrelated with the cognitive factors over the course of career development (Lent et al., 1994).
The model of career interests includes self-efficacy and outcome expectations as the socio-cognitive determinants for basic career interests. According to the researchers (Lent et al., 1994), people’s environments expose them to a wide array of activities of potential career relevance during childhood and adolescence. They also observe or hear about others performing various occupational tasks. Through repeated activity engagement, modeling, and feedback from important others, children and adolescents refine their skills, develop personal performance standards, form a sense of their efficacy in particular tasks, and acquire certain expectations about the outcomes of their performance (Lent et al., 1994). In particular, people form interests in activities in which they view themselves to be efficacious and in which they anticipate positive outcomes (Bandura, 1986; Lent, Larkin & Brown, 1989; Lent et al., 2004). Such emergent activity interests are likely to contribute to the formation of characteristic patterns of enduring career interests by evoking the successive procedures of activity exposure, task selection, activity involvement and performance attainments, all of which in turn revise self-efficacy and outcome expectancy estimates (Lent et al., 1994).

Furthermore, the researchers especially stressed self-efficacy beliefs as one of the most direct factors exerting effects on activity goals, choices, and performance accomplishments. They expected that the effects of ability (as reflected by past performance or achievement indices) on interests would be largely mediated by self-efficacy beliefs, since people might rely more on perceived than tested abilities in formulating their interests (Lent et al., 1994).
Based on this proposed model, Lent et al. (1994) further discussed the essential role of gender, as a personal factor, in shaping the career development process. By viewing gender as a socially constructed aspect of experience, the authors emphasized that this sociocultural gender can orchestrate the learning opportunities to which particular children and adolescents are exposed, as well as the nature of the outcomes they receive for performing different activities (Lent et al., 1994). Inspired by Hackett and Betz’s illustration (1981), they also pointed out the process of gender role socialization might bias boys’ and girls’ access to sources of information necessary for developing strong efficacy percepts in particular, culturally sanctioned activities. Gender and cultural factors are seen to be linked to the opportunity structure within which career goals are framed and implemented (Lent et al., 1994).

Rovelling around such concepts as modeling, self-efficacy, and perceived similarity, sciocognitive Theorists has incorporated the afore-mentioned inquiries into the same theoretical framework, which offers great insights for the cross-area interests of the present study. Yet to fully understand the theoretical connection between gender and career interests, some key ideas beyond Social Cognitive Theory needs to be considered.

2.2.5 Gender Difference in Career Interests

Holland (1959, 1997) developed an interest model that has been widely adopted for career interest measurement. He organized vocational interests into six types, which formed a circular structure referred to collectively as RIASEC: Realistic interest in working with things and gadgets or working outdoors; Investigative interest in science,
including mathematics, physical and social sciences, and biological and medical sciences; *Artistic* interest in creative expression, including writing and the visual and performing arts; *Social* interest in helping people; *Enterprising* interest in working in leadership or persuasive roles directed toward achieving economic objectives; and *Conventional* interest in working in well-structured environments, especially business settings (Su et al., 2009). In an important elaboration of Holland’s model, Prediger (1982) demonstrated that RIASEC was underlain with two bipolar work task dimensions: things versus people and data versus ideas. The People-Things dimensions taps the degree to which vocations involve impersonal tasks (e.g., dealing with machines, materials, and tools) versus interpersonal tasks (thinking about, taking care of, teaching, or directing others). The Ideas-Data dimensions taps the degree to which vocations involve intrapsychic tasks (thinking, creative mental activity, using knowledge and insight) versus more external, data-related tasks (keeping records or organizing files and numeric data) (Prediger, 1982).

In his pioneering exploration of individuality one century ago, Thorndike (1911) already pointed out that the greatest difference between men and women was “in the relative strength of the interest in things and their mechanisms (stronger in men) and the interest in persons and their feelings (stronger in women) (pp.31).” Inspired by this assumption, Lippa (2001) proposed masculinity–femininity as a bipolar trait that overlaps substantially with the People–Things dimension of vocational interests. The bipolarity of interest-based M-F is suggested by the fact that gender difference is extremely pronounced along this dimension of the vocational/interest circumplex (Lippa, 2001). Lippa’s multistudy article (Lippa, 1998) also offered empirical evidence that gender was
strongly related to the People-Things dimension—with women more on the People side and men more on the Things side—but not to the Ideas-Data dimension. Besides, Su et al. (2009) did a meta-analysis of sex difference in career interests based on Holland’s categories and Prediger’s dimensional elaboration. Their findings echoed Lippa’s conclusion, showing that gender produced a large effect size on People-Things dimension. In addition, they discovered that men showed stronger Realistic and Investigative interests, and women showed stronger Artistic, Social, and Conventional interests (Su et al., 2009). In this sense, occupations related to the People side can be seen as feminine-oriented while vocations on the Things side are traditionally more male-dominated. As for women, liking People-centered career is thus considered as gender-typed, career interests. Interests for Thing-centered occupations are, on the other hand, more nontraditional interests.

Tracey and Rounds (1996) proposed a spherical model of vocational interests as an extension of Holland’s RIASEC model. The researchers reinvented the RIASEC into eight career types: social facilitating, managing, business detail, data processing, mechanical, nature/outdoors, artistic, and helping. More importantly, they proposed and detected a third prestige dimension in interests that is orthogonal to the existing People-Things and Ideas-Data dimensions (Tracey & Rounds, 1996). The new eight-type career categories were then organized into People-Things, Ideas-Data, and Prestige dimensions (Tracey & Rounds, 1996). The presence of the prestige component runs counter to the naive assumption that, given a choice, everyone would naturally opt for the more prestigious occupations. Individuals do have different preferences when it comes to the
desirability of prestige in occupations, but the basis of these preferences is not clear (Tracey & Rounds, 1996). For the purpose of the present study, gender difference can be brought into such discussion. According to the traditional gender role arrangement in the mainstream society, women are more often associated with domestic/natural spheres (Plumwood, 1990; Sydie, 1994). As a result, they are socialized to engage with low-prestige activities such as social service and assistant work. In contrast, with their dominant status in the gender structure and society, men are educated to strive for occupations with higher prestige. In this sense, women’s gender-typed career interests should also include their interests in low-prestige career. Similarly, those with nontraditional interests are likely to have interests for high-prestige occupations.

The focus of the present study on media influence on women’s gender related career interests requires the integration of all the sociocognitive theorization made in those areas discussed above. The purpose of this research is therefore to articulate the ways in which female audience learn from the magazine models about their career aspirations and how their self-efficacy and perceived similarity to the portrayals affect the overall modeling process. However, to adequately make such arguments, it is necessary to first review the empirical studies about mediated representations of gender and career and their effects, which have offered evidence for the social cognitive proposition.

### 2.3 Gender Representation in Mass Media

According to Social Cognitive Theory, gender representation in mass media is likely to provide considerable numbers of “role models” for women and men regarding
the appropriate ideas, values, and actions they are supposed to take. The particular patterns of mediated gender representation indicate which occupation is actually displayed with audience in the modeling process. Numerous studies have examined the distinct ways in which women and men are portrayed in various media forms including television, magazines, video games, etc. Most of their findings over the past thirty years share the general conclusion that mass media, regardless of forms, tend to display the apparent gender-stereotyped representations of women and men in all the aspects of their demographics, personality attributes, and behaviors, while some slightly progressive changes also occur occasionally during the period. Especially, one of the key concerns of these studies is the gender difference in the portrayals of employment status and occupational roles. The attention to how women’s career is depicted in mass media has echoed feminist concerns of the transformation of women’s social roles and space. Based on the focus of different media forms, two lines of research have dominated the study of mediated gender representation. The first cluster of studies has analyzed how television programming and commercials portray women and men’s occupational differences. The second line of research has examined magazine representation with an emphasis on the coding of the advertising images. Both perspectives provide empirical evidence about media portrayals of women’s occupations and social roles in general. This section is thus devoted to review the major contributions along these two lines.

2.3.1 Television Studies

As one of the prominent sources for gender representation with a wide reach, television has been the central concern since the beginning of gender and media studies.
Empirical studies in TV representation of gender started in the early 1950s and bloomed in 1970s as an echo with the development of women’s movement during that period. In this sense, Television studies lay the foundation for understanding gender difference in media portrayals. Since then there have been plenty of representative studies in every decade, which combine to show how television content reflects and reproduces the gender norms in each era. The depiction of women’s occupational roles, according to these studies, has largely reflected the traditional gender expectation in the mainstream society over the years.

One of the earliest studies in gender representation on television pertains to Dominick and Rauch’s classic content analysis of images of women in TV commercials (Dominick & Rauch, 1972). The researchers analyzed a sample of prime time television commercials appearing on the network flagship stations in New York over a two-week period. Focusing on the female characters in the commercials, their results revealed the conventional stereotypes of women’s social roles and occupations in television ads. In general, the authors concluded that women were most often seen as sex objects or housewives and wives, but hardly as professional or working wives. More than half (56%) of the females in the ads were judged to be housewives and 7 out of 10 females with an apparent occupation held a job of subservient nature. Women lawyers, doctors, business executives, scientists, engineers, athletes, professors, and judges were conspicuously absent from commercials (Dominick & Rauch, 1972).

Similarly, McNeil’s research (1975) offered evidence to extend Dominick and Rauch’s results to prime-time television programming. McNeil’s data demonstrated that
television programs’ division of men and women into different marital status and traditional gender-related occupations reflected women’s subordinated, auxiliary relation to men with little prestige or power. In general prime-time television portrayed a much higher proportion of employed men than employed women. McNeil also pointed out that male characters tended to work in fields which carried high prestige such as law enforcement, government officials and business managers whereas women’s occupations clustered in stereotypically female fields with little prestige including entertainment, education, and health (McNeil, 1975).

When it comes to 1980s, Signorielli’s 1989 research (Signorielli, 1989) explored the image of men and women in annual sample of prime-time network dramatic television programming broadcast between 1969 and 1985. Examining content items relating to marriage, family, and employment, the analysis revealed that sex role images, over that period of time, was “quite stable, traditional, conventional, and supportive of the status quo” (Signorielli, 1989). The presentation of men and women in regard to notions of home and family was quite different. Almost 20% of the women were shown performing homemaking activities for others as opposed to only 3% of the men performed these types of activities. Proportionately more women than men were presented as having or caring children. Similarly, family life was also presented as important for more female than male characters. When it comes to employment, the study reported 68% men and 37% women shown as working outside home. Only less than a third of the married women and half of the single and formerly married women were portrayed with occupations. More specifically, in contrast to male characters whose
occupations were relatively diverse and centered highly in the professional fields, women who were employed outside home were often cast in traditionally female occupations such as nurses, secretaries, waitresses, and sometimes teachers (Signorielli, 1989).

1990s saw some progressive changes, although relative limited, in televised representation of women. For example, Atkin (1991) traced the influence of economic development on serial programming devoted to single working women from 1966 to 1990. The author discovered that the networks made considerable progress in the quantity and status of roles presented. According to the results, the most common occupational roles represented in 81 yearly program units, involved in white-collar characters. Characters with such jobs as secretaries accounted for 22.7%, while another 21.9% of women characters were shown in law-enforcement (investigator/detective) roles. Only 2.9% of women characters appeared in blue-collar professions. While characterizations prior to 1971 were dominated by pink-collar roles (48.1%), the late 1970s brought an improvement in workplace status, as the networks offered a wider range and frequency of white-collar professionals, including lawyers, advertising executives, and news producers. Beginning with the 1978 season, white-collar roles were in the plurality and grew to be twice as common as pink-collar roles after the 1982 season. More generally, Atkin argued that women seemed to be depicted in a greater number and variety of working roles than before.

On the other hand, Elasmar, Hasegawa, and Brain (1999) summarized the analysis of portrayals of women in prime time television programs broadcast in the United States during 1992-93. Their results were only partially consistent with Atkin et al.’s findings.
The sample consisted of prime time television programs of 6 constructed weeks during a one-year period. Their results showed an increase in female characters with employment outside home (44.4%) in comparison to 1980s, which was consistent with that of American values concerning women in the workplace. However, the researchers also revealed that only 9.9% of the characters held professional, white-collar positions. In contrast, the largest percentage (19.1%) of females with a clear occupation was employed in blue-collar positions, including non-management roles and manual or assembly line roles. There was also a relatively large percentage (15.4%) of females employed in the entertainment business as models, musicians, and motion picture roles. Just over eleven percent (11.3%) of females were represented as home-makers and only 3.1% of females were represented as housewives as their occupation.

Glascock’s 2001 study provided an update of gender demographics and behaviors on network prime-time television. Using a sample of fictional series for the three major networks and Fox during 1996-97 television season, the researcher explored the difference in televised representation of gender roles. In his analysis of employment and occupations, Glascock classified characters’ jobs based on income, finding that males have significantly higher-paying jobs than females. Furthermore, although both men and women were frequently depicted as police officers, there was drastic difference in the representation of other occupations. Male characters were more likely to be professionals such as lawyers, doctors and judges while female characters were mostly portrayed as nurses, secretaries, and waitresses (Glascock, 2001). In terms of job status (boss,
employers, interminate), males (17.6%) were twice as likely to be depicted as bosses as females (8.7%).

In a word, the content analyses of gender representation on television have concentrated on two primary issues about women’s career. First, they reveal whether women’s primary space was at home or at workplace. The findings indicate a progressive transformation by detecting an increase in the percentage of working women from 1970s to 1990s’ representation. The second focus deals with the occupational classification arranged for women in television depiction. The results here do not actually vary much across decades in that generally women are more portrayed as holding nurturing, supplementary, pink-collar jobs with limited prestige, power, and control. These working roles for women as secretary, teachers or nurse reflect the traditional femininity which emphasizes women’s caring, assistance, and subordination.

2.3.2 Magazines Research

Compared to the pioneering gender analysis in television studies, the magazine research along the same lines appeared more recently with overwhelming concentration on the analysis of advertisement images. Methodologically, the magazine research is distinct from television studies in the respect that the women’s employment status in magazine images always needs to be interpreted or coded, as opposed to the explicit indication of it in television programming. However, the patterns focused in magazine representation are quite consistent with that of television gender depiction.
Courtney and Lockeretz (1971) conducted a pioneering analysis examining the stereotypes of women represented in magazine advertisements published in 1970. Concentrating on comparing the occupational and nonworking roles of women and men in general magazines, the researcher concluded that print ads rarely showed women in working roles: less than one-tenth of the women (9%) were shown in working roles, as opposed to 45% of the men shown in working roles. Similarly, only 12% of the workers shown in the ads were female. Moreover, of all the working women, not a single woman was shown as a professional or high-level business executive. Instead, 58% were entertainers, with the remaining being clerks, stewardess, assembly line worker, schoolteacher and other assistant roles. Finally, Courtney also found that when women were shown alone or with other women, 90% were in nonworking roles, of which 70% were in the nonactive, decorative roles. In a word, the result indicated that the 1970 magazine ads as a whole failed to show the true range of women’s roles within the society. The distribution of occupational and nonworking roles in the ads reinforced the feminists’ impression that women were rarely shown engaged in important activities outside the home (Courtney & Lockeretz, 1971).

Belkaoui and Belkaoui (1976) reported the results of a comparative analysis of women’s roles in a sample of advertisements drawn from eight magazines published in 1958, 1970 and 1972. The author found that magazine advertisements across the decades showed women mostly as unemployed or low income earners with limited purchasing power. In 1958, 13% of the women were shown in working roles, whereas by 1972 the figure had grown to 21%. However, not a single woman in the three samples was shown
in a high level business executive position. Similarly, no women were portrayed in professional roles in either the 1958 or the 1970 ads. The major difference between the 1958 ads and those of the two “post-liberation” studies stemmed from the high percentage of women (74.4%) shown in nonprofessional white collar roles (i.e., secretarial-clerical jobs) in the 1958 ads. This figure dropped to 17% in 1970 but was up again in 1972 to 46%. A smaller difference among the three samples was shown in the proportion of women portrayed as middle level business executives: 5.6% in 1958, 8% in 1970, and 15% in 1972 (Belkaoui & Belkaoui, 1976). Yet these few women were clearly portrayed as subservient to their male office counterparts. In conclusion, the authors pointed out that some of the standards of expected behavior prevalent in 1958 remained as the stereotypes of 1970s, which did not “keep up with the times in portraying women in the wide variety of roles they play in today’s world” (Belkaoui & Belkaoui, 1976, pp. 172).

A follow-up study was conducted by Sullivan and O’Connor (1988), who compared magazine advertisements in 1983 to those of 1958 and 1970. Selected from eight general interest periodicals such as People, Newsweek, Reader’s Digest, and Time, the 364 sample advertisements here were found to more accurately reflect the true diversity of women’s social and occupational roles than previously. Comparing their sample to the findings of Courtney and Lockeretz (1971), and Belkaoui and Belkaoui (1976), the researchers detected a marked increase in the employment status of women portrayed in 1983 (23%, as opposed to 13% in 1958 and 9% in 1970). Furthermore, the results showed that the 1983 advertisements depicted women in professional, sales, and
mid-level business occupations to a greater degree than would be expected (15 and 33%, respectively). However, there was also an increase in women portrayed in purely decorative and sexualized roles (60%), which to some extent counterbalanced the progress made in the depiction of employment.

As of the studies in the recent years, Lindner (2004) examined advertisements in both Vogue and Time magazines from 1955 to 2002 to understand the kind and extent of the changes that have occurred in the portrayal of women over time. She discovered that overall, 78% of all advertisements contained stereotypical images of women. Especially women were shown in domestic settings or in decontextualized environments much more frequently in Vogue (M = 30.0%) than in Time (M = 14.5%).

The main fruit in the study of gender representation in popular magazines lies in the discovery of women being mostly portrayed as sex objects with no occupations. There is little explicit indication of women’s employment and career even in the general interest magazines. In contrast, women’s space in magazine images is primarily located in domestic settings. In this sense, magazines tend to hold even more stereotypical images of women than the television representation.

Summary

Television studies and magazine analysis compose the main body of the literature in mediated gender representation. While distinguishing from each other in focuses and methods, these two lines of research come to similar conclusion that generally mass media still tend to reproduce traditional gender norms in the stereotypical portrayals of
women. Especially, both television and magazine depiction restricts women in traditional feminine-oriented occupations or even just domestic settings. Women’s career in mass media has been largely associated with assistant nature, low prestige, and little power, which reflects the dominant social expectation of women’s roles. With such consistent trends in the mainstream media representation, it is therefore necessary to explore the potential influence such occupational description is likely to have on female audience.

Admittedly, it is also important to note that the counter-stereotypical representation does exist. The images of women in powerful and professional working positions have been found by both lines of research. Due to the relative little amount of the nontraditional representation, its effect on general audience is very likely to be ignored or counterbalanced by the majority of stereotypic portrayals on a regular basis. It is thus the purpose of the present study to separate such representation from the mainstream and look into detail its impact.

2.4 Effects of Exposure to Gender Representation

Based on the content analysis of mediated gender representation, researchers have also attempted to empirically detect the impact of the exposure to such portrayals on various components of individuals’ gender role attitudes and gender self-concept. These studies have followed the sociocognitive assumption that the audience tends to learn and imitate the represented models in mass media not only in terms of career choice but regarding various aspects of gender conceptions. Again studies in both television and magazine have made contributions to the theoretical development and empirical
exploration along those lines. Admittedly, there are only a limited number of studies that have specifically looked at people’s acquisition of career interests from mediated gender portrayals. Yet the effects of symbolic modeling on gender conceptions in general have been broadly examined, which offer rich insights regarding how Social Cognitive Theory actually works in the real world. Therefore the main trends of the media effects research in general will be discussed in great detail in the following section.

2.4.1 Television Studies

Pioneering research in the effects of television viewing on gender conception was where the theoretical frameworks for gender and media studies started taking shape. Focusing on conceptualizing and measuring people’s gender role attitudes as a whole, scholarly works in this area usually employ experimental manipulation to test the sociocognitive assumption. These studies therefore center on detecting the short-term effects of media exposure.

The first body of research examined the televised gender representation through experimental manipulation and observation. Taking children or young adults as the major participants, most studies operationalized television exposure as watching specific gender portrayals and detected the short-term, immediate effects. They tended to define individuals’ gender role attitudes as what was learned from television characters and measured them through behavioral and conversational observation afterwards.

Atkin (1975) conducted a series of experimental studies designed to test children’s learning of gender role attitudes from television commercials. In one
experiment, Atkin especially prepared commercials portraying women in typically male occupations and embedded them in a half-hour television cartoon. 400 grad school children were randomly assigned to the treatment and control conditions for television exposure. The researchers found that grad school children who saw the commercials with occupational sex-role models were more likely to endorse the occupations as appropriate for women than were children who saw other commercials.

McArthur and Eisen (1976) conducted a study to examine the effects on children’s behavior of television exposure to sex-stereotyped vs. non-stereotyped behavior by experiment. 20 male and 20 female preschoolers were randomly assigned to 4 videotape conditions which depicted an adult male model and an adult female model engaging in either stereotypical or reversal activities. Posttest on the participants’ overt behavior toward toys, recall of models and verbal preference revealed that children tended to recall and reproduce the behavior of a same-sex televised model than an opposite-sex one. More specifically, girls exposed to a “stereotyped” vignette would manifest, recall, and prefer more “feminine” and less “masculine” activities than those exposed to a nonstereotyped or “reversal” vignette, whereas the opposite would hold true for boys.

Another research based on Social Cognitive Theory is Miller and Reeves’ study about dramatic TV content and children’s sex-role stereotypes (Miller & Reeves, 1976). Distinct from experimental manipulation of the above studies, the researchers investigated the impact of television portrayals on children’s sex role perceptions through a survey questionnaire. 200 elementary students were asked about their television
program exposure, their intention to be like certain TV characters and their perceptions of occupational sex roles. According to the survey results, children did nominate same-sex TV characters, especially highly stereotyped ones, as models for their own behaviors. Boys often justified their choices on the basis of physical aggression attributes of models while girls justified their choices on the basis of physical attractiveness. Miller and Reeves also found children who were exposed to television content portraying women in counter stereotypical occupations will perceive occupations as more appropriate for women in real life.

Jennings, Geis, and Brown (1980) investigated the impact of television commercials on women’s self-confidence and independence of judgment. In the experiment, half of the female subjects were shown a series of four TV commercials depicting men and women in traditional sex roles. The other half viewed the same commercials in which the sex roles had been reversed. Immediately following presentation of the commercials, all subjects were given both a cartoon rating measure of independence of judgment and a public speaking measure of self-confidence. The results showed that those exposed to nontraditional versions of commercials had more independence of judgment and greater self-confidence when delivering a speech than those exposed to stereotypical commercials. The authors thus not only concluded that that commercials functioned as social cues to trigger and reinforce sex role stereotypes but also suggested that repeated exposure to non-stereotypical commercials might help produce positive and lasting behavioral changes in women.
Lavine, Sweeney, and Wagner (1999) tested the effects of television advertising on women and men’s body esteem. The study proposed that television advertisements portraying women as sex objects tended to exert negative influence on women and men’s perception of and satisfaction with their bodies. The experiment exposed participants to 15 sexist and 5 nonsexist ads, 20 nonsexist ads, or a no ad control condition. A follow-up questionnaire tested participants’ body dissatisfaction and attitudes towards ads and feminism. The researchers concluded that gender stereotypic/sexist ads, by depicting unrealizable standards of female beauty and thinness, activated the women-as-sex-object subtype and in turn caused increased body dissatisfaction among both women and men.

Summary

The experimental research has replicated the results that audience observes and emulates the appropriate gender-linked traits and behaviors through exposure to television, which offered various role models with power to gain rewards from their behaviors (Miller & Reeves, 1976). In this sense, the short-term, experimental studies can been seen as inspired by Social Cognitive Theory (Bandura, 1969, 1986). Social cognitive theorists argue that people value and learn from same-sex behavior because they are rewarded for such behavior (Mischel, 1972). Focusing mainly on children and adolescents’ gender role development, effect studies from this perspective traced the mechanism of television effects to social learning process, assuming that observational learning from symbolic models on TV constitutes and important step in the acquisition of sex-typed behavior.
2.4.2 Magazine Research

On the other hand, research traditions in studying the effects of magazine exposure have largely centered on the experimental approach as well, tracking how participants are influenced by gender-related content in relatively short-term period. While researchers have used distinct theories to explain why exposure to stereotypical and counterstereotypical gender portrayals leads to different gender role attitudes and conceptualization, the core ideas of Social Cognitive Theory are in fact reflected from most of the empirical findings. A wide range of specific aspects within the broad concepts of gender role attitudes and gender self-concept have been studied in magazine research. Especially, magazine images’ impact on readers’ gendered career conception has been explored in particular.

An experimental study of Kilbourne (1990) revealed the relationship between exposure to portrayed women in magazine advertisements and readers’ perception of female leadership. The test stimuli included six print advertisements with two versions representing women in either a housewife gender role or a professional gender role. After the exposure to these ads, participants evaluated a “neutral” female photograph on such traits as aggressiveness, leadership, analytical ability, rationality, and liking for doing complex tasks. Kilbourne found that exposure to portrayals of women in stereotypical gender roles led to male audiences’ significantly more negative attitudes toward women’s in terms of their managerial attributes than exposure to ads with women in counter-stereotypical, professional roles requiring such abilities. But the experiment had little
influence on women subjects. In conclusion the researcher advised advertisers to avoid portraying women in stereotypical roles.

Lanis and Covell (1995) conducted a study to examine the effects on sexual attitudes of different portrayals of women in advertisements from men’s, women’s and general interest magazines. Male and female university students were exposed to advertisements with either women depicted as sex objects, or women in progressive or reversed roles, or no human figures. The analyses of the data revealed that males exposed to the sex-object advertisements were more likely to evidence increased sex role stereotyping and rape myth beliefs and were more likely to accept interpersonal violence (primarily against women) than were males in other conditions. In contrast, sex role stereotypic and rape myth beliefs were lowered among women when they saw females in advertisements. In particular, females exposed to the progressive female images were least accepting of such attitudes among groups.

McKay and Covell’s study (1997) extended existing research by showing a link between images of women in advertisements and sexual attitudes. The researchers assigned undergraduate participants to read either sex images or progressive advertisements in sample magazines. The post-exposure test showed that after being exposed to sexually explicit images of women, as opposed to non-traditional role-reversed portrayals of women, both women and men showed increased gender stereotyping, rape myth acceptance and acceptance of sexual aggression toward women. Those seeing sexual-image advertisements also showed lower acceptance of feminism.
Overall the researchers saw continuous presentation of such advertisements as obstacles to women’s striving for equality.

Posavac, Posavac, and Posavac (1998) conducted three experiments to test how exposure to popular women’s magazines affected women’s conception of their own attractiveness. They also attempted to examine the moderating role of trait body satisfaction in the media exposure process. The findings from the experiments combined to demonstrate that exposure to ideal images of female attractiveness tended to cause increased weight concern among most young women. Especially, even passive exposure to media images resulted in negative body image and increased weight concern. The researchers also discovered that such effects often resulted from a social comparison process, in which discrepancies were perceived by female readers between their bodies and that of the society’s standard depicted in media. Furthermore, body dissatisfaction was a moderator of vulnerability to this effect.

The above results were replicated by Morry and Staska in a study which detected the relationships among magazine exposure, self-objectification, body shape dissatisfaction, and eating disorder symptomatology in men and women. Using a sociocultural model, Morry and Staska (2001) found that beauty magazines and fitness magazines influenced women and men, respectively, in different ways. For women, beauty magazines predicted self-objectification for women, mediated by internalization. Internalization in turn predicted women’s increased body dissatisfaction. For men, fitness magazines directly predicted body dissatisfaction, mediated by internalization. Besides, reading magazines caused eating problems for both women and men. Their findings
indicated that magazine reading was related to concerns with physical appearance and eating behavior, with relationships previously found for women quite similar for men.

Garst and Bodenhausen’s research (1997) is among the very few studies focusing on the effects of magazine exposure on men’s gender conception, which is actually underlain with very similar mechanisms as women’s exposure. These researchers specifically looked at effects of advertising images of men on men’s gender role attitudes soon after magazine exposure. A total of 212 men viewed magazine advertisements containing images of men that varied in terms of how traditionally masculine vs. androgynous they were and whether the models were the same age or much older than the viewers. Their post-exposure answers to the questionnaires reflected that men initially with less traditional gender role attitudes turned to espouse more traditional attitudes than any other group after exposure to traditionally masculine models, while they continued to endorse relatively nontraditional views after exposure to androgynous models. More traditional men, on the other hand, appeared less susceptible to the influence of media images of men. These findings suggested that nontraditional men’s gender role attitudes might be rather unstable and susceptible to momentary influences such as those found in advertising.

As for magazine representations’ impact on readers’ beliefs about careers and occupations, Covert and Dixon (2008) designed an experiment to specifically examine the effects of counter-stereotypical magazine portrayals of women of color. Based on a content analysis of mainstream women’s magazines in 1999 and 2004, the researchers randomly assigned participants to read different types of magazine representation of
women. The manipulated magazine conditions contained varying degrees of women of color in work-related articles. The results supported the hypothesis that “particularly among Whites, greater proportions of women of color in mainstream women’s magazine articles would yield higher estimates of the educational level of women of color and foster the perception that women of color work in jobs with good pay and good benefits” (Covert & Dixon, 2008). The articles appeared to have provided White readers with a subgroup of counterstereotypical women of color exemplars they could draw on when forming impressions of other women of color (Covert & Dixon, 2008). However, the same effects were not found with the readers of color.

Summary

All the studies mentioned here cast light on the impact of representation of women in magazines, showing that readers tend to endorse the gender conceptions represented in magazines immediately after the exposure. However, there are apparently three limitations with them. First, few of the existing studies have paid special attention to the influence of women’s representation on female audience’s gender role attitudes and their corresponding career interests. Second, most of the studies have focused on the reinforcing process of gender stereotyping in the exposure to stereotypical images of women and ignored the equally important effects of those counter-stereotypical portrayals, though they are presented less frequently than the stereotypical ones in reality. Finally, previous research has only detected the short-term, immediate effects of magazine exposure in the one-session experimental design while the concern of long-term, cumulative impact is largely missing. With an emphasis on prolonged exposure,
different types of women representations and audience’s career interests, the present research intends to make up the gap in the existing literature.
Chapter 3: Hypotheses

3.1 Magazine Exposure and Career Interests

Based on the above discussion, the present study intends to explore, from a social cognitive perspective, how female readers acquire and adopt certain types of career interests from the modeling displayed by the stereotypical and counter-stereotypical gender representation in mainstream magazines. Magazine images of women, with their explicit and implicit cues for women’s appropriate activities and appearance, tend to create “models” and “standards” for the female audience in terms of their own social and occupational roles. Especially, the increasingly diverse gender portrayals in the contemporary magazines inspire more complex theoretical relationships under this premise. The gender-stereotypical and counter-stereotypical depiction of occupational roles is likely to affect audience’s career interests in very distinctive ways. Therefore, the present study first proposes a between-group difference in the change of career interests between those who see conventional images and those who view counter-stereotypical representation:

\[ H1a: \text{Exposure to images of professional women and exposure to images of conventional women differ in their impact on young women’s interests in traditional, gender-typed career.} \]
H1b: Exposure to images of professional women and exposure to images of conventional women differ in their impact on young women’s interests in nontraditional, non-gender-typed career.

Besides the research interests in the between-group effect, the present study also intends to detect the evolution of career interests within each exposure group. More specifically, the dominant, stereotypical representation in magazines tends to portray women as either sex objects with no occupations, family-oriented housewives, or pink-collar workers with little power and control. If a woman in reality is constantly exposed to such traditional depiction which highlights domesticity, caring and parenting while downplaying competence, achievement and authority, she is likely to learn from the magazine images that women should pay more attention to domestic life than career achievement and hold more traditional feminine qualities (helping, nurturing, caring, etc.) as opposed to power, professionism, or controllability which compose the dominant masculinity. Therefore, she will more endorse traditional female-stereotypic occupations with low prestige which emphasize little on managerial abilities, intelligence and leadership. In contrast, the counter-stereotypical portrayals represent women in achieved career positions with leadership, managerial abilities, and authority. Accordingly, if a woman reads more often the magazines which carry women’s representation as professional, powerful and competent, she is likely to imitate these counter-stereotypical models and thus hold more career-oriented role attitudes, expecting to pursue high prestige occupations which are traditional male-oriented. These propositions lead to the second set of hypotheses:
H2a: Exposure to stereotypical images of women in conventional roles leads to an increase in interests for traditional, gender-typed careers among young women.

H2b: Exposure to counter-stereotypical images of professional women leads to an increase in interests for nontraditional, non-gender-typed career among young women.

On the other hand, readers’ constant consumption of one single type of magazine representations of women, either stereotypical or counter-stereotypical portrayals, also leads to the lack of their exposure to the other type. In other words, women who only see images of peers in traditional feminine roles would not gain models from which they learn interests for nontraditional career achievement. Similarly, the viewers of the portrayals of powerful women in professional positions are likely to reduce their interests in gender-typed occupations, given that they do not access to such traditional modeling. The third set of hypotheses is thus proposed as following:

H3a: Exposure to images of conventional women leads to a decrease in interests for nontraditional, non-gender-typed careers among young women.

H3b: Exposure to images of professional women leads to a decrease in interests for traditional, gender-typed career among young women.

3.2 Self Efficacy Beliefs

If the symbolic modeling (magazine exposure) leads to the acquisition of gender conceptions and competences (hypotheses 1 and 2), there are still several factors regulating gender-linked behavior. Given that Social Cognitive Theory stresses the role
of self-efficacy beliefs in the observational learning of both gender conception and career interests, it is reasonable to hypothesize the potential effects of self-efficacy on the relationship between magazine exposure and the formation of career interests. Based on the existing yet scattered theoretical analyses of media exposure, self efficacy beliefs, and career interest development, the present research intends to incorporate self efficacy as an essential moderator in the comprehensive process through which women’s magazine exposure affects their career interests. Indeed as for the impact of self-efficacy on gender-linked beliefs and conduct, researchers have found fruitful results from the study of men and women’s selection of career choice and development (Bandura, 1997; Hackett, 1995).

In general, those with strong self efficacy consider a wide range of career options, show greater interest in them, prepare themselves better for different careers, and have greater staying power in their chosen pursuits (Lent et al., 1994). From the gender perspective, it has been found that male students have a comparable sense of efficacy for both traditionally male-dominated and female-dominated occupations. In contrast, female students only feel sufficiently efficacious for the female-oriented occupations but hold weaker perceived efficacy that they can master the educational requirements and job functions of traditionally male-gendered occupations, even though they do not differ in actual verbal and quantitative ability (Hackett & Betz, 1981). The disparity in perceived efficacy for male-dominated and female-dominated occupations is greatest for women who view themselves as highly feminine, distrust their quantitative capabilities, and believe there are few successful female models in traditionally male-dominated occupations (Matsui, Ikeda, & Ohnishi, 1989). Other studies have especially addressed
that women base their occupational preferences even more heavily on their perceived efficacy than on the potential benefits the vocations yield (Wheeler, 1983).

Accordingly, the modeling influences of mass communication on women’s career interests should be largely affected by their beliefs of self-efficacy. Only when people are confident in their capabilities to achieve the same occupations of the symbolic models in media representation will they ultimately turn the information learned into their own career goals. There is a growing body of research on the effects and modification of perceived self-efficacy on the social learning process in media exposure as a whole (Maibach, Flora, & Nass, 1991; Slater, 1989).

It is important to note that there may be a temporal lag between newly acquired self-efficacy and investment of interest in activities that have previously been perceived as neutral or unenjoyable by the individual (Bandura, 1986). As a symbolic modeling process, the magazine exposure is very likely to affect readers’ ongoing self-efficacy. But since the updated efficacy does not influence individuals immediately, as Bandura emphasizes, it is more meaningful to focus only on the effects of the base-line self-efficacy beliefs. Hence, the next two groups of hypotheses are stated as follows:

H4a: The effects of exposure to images of conventional women on female readers’ interests for traditional careers depend on their self-efficacy beliefs about the gender-typed careers. The higher base-line self-efficacy they have, the more increases they will have in gender-typed career interests.
**H4b:** The effects of exposure to images of professional women on female readers’ interests for nontraditional careers depend on their self-efficacy beliefs about the non-gender-typed careers. The higher baseline self-efficacy they have, the more increases they will have in their nontraditional career interests.

**H5a:** The effects of exposure to images of conventional women on female readers’ interests for nontraditional careers depend on their self-efficacy beliefs about the non-gender-typed careers. The higher base-line self-efficacy they have, the fewer decreases they will have in non-gender-typed career interests.

**H5b:** The effects of exposure to images of professional women on female readers’ interests for traditional careers depend on their self-efficacy beliefs about the gender-typed careers. The higher baseline self-efficacy they have, the fewer decreases they will have in their traditional career interests.

### 3.3 Perceived Similarity to Magazine Portrayals

In addition to examining the basic relationship between magazine exposure and career interest formation as moderated by self-efficacy beliefs, the present research intends to further scrutinize how exposure to women representations interacts with female readers’ self efficacy through perceived similarity to the magazine portrayals.

According to Social Cognitive Theory, audience’s different perceptions and interpretations of media representation, and especially their comparison of themselves with such media characters as models of behavior, tend to generate varying degrees of self-efficacy. Symbolic modeling, self-efficacy beliefs, and perceived similarity have
been articulated before as interrelated factors in an ongoing dynamics in which media exposure takes effects. As for the specific viewing of magazine images, if the female readers find the women in the images to be similar to themselves in terms of various attributes, they are likely to be more confident in their abilities to achieve the same occupations and activities as the representation. Accordingly, perceived similarity is proposed here as a mediating factor between magazine exposure and self efficacy beliefs:

*H6a: Exposure to stereotypical portrayals of conventional women will lead to a self-efficacy increase regarding gender-typed careers among female readers who perceive themselves as similar to the portrayals.*

*H6b: Among the female readers who are exposed to counter-stereotypical images of professional women, those who find such representation more similar to themselves will show greater increase in self-efficacy for non-gender-typed careers.*

In contrast, if the readers find the specific type of women’s images they see similar to themselves, it indicates that they are not highly identified with the opposite type of representation. Therefore for readers who view stereotypical portrayals, perceived similarity is likely to moderate the negative relationship between magazine exposure and self-efficacy for nontraditional careers. The same mechanism also applies to those who are exposed to counter-stereotypical images of women and their self-efficacy for gender-typed occupations. The final set of hypotheses is thus as follows:
H7a: Exposure to stereotypical portrayals of conventional women will lead to a self-efficacy decrease regarding nontraditional careers among female readers who perceive themselves as similar to the portrayals.

H7b: Among the female readers who are exposed to counter-stereotypical images professional women, those who find such representation more similar to themselves will show greater decrease in self-efficacy for gender-typed careers.

The present study will use the theorization of gender-linked occupation preferences discussed in Chapter 2 to conceptualize and measure female participants’ career interests. Both gender-typed career and nontraditional career for women include two dimensions. The former one is operationalized as occupations dealing with people, or with low prestige. The later one is operationalized as vocations dealing with things, or with high prestige. The established measurements proposed by Tracey (2010), which formulized internal relationships between career types and the underlying dimensions will be adopted and used to test the hypotheses.
Chapter 4: Methods

4.1 Overview

Female college students (N=105) in the age range 18-26 participated in an online study entitled with “Magazine enjoyment and magazine journalism”. Participants finished seven sessions spread over ten days including a baseline measures session on a Friday, five daily sessions of magazine exposure on the following weekdays, and a post test on the next Monday. In each of the five daily sessions, the women viewed eight manipulated magazine articles and eight manipulated magazine advertisements plus two distracter pages that showed no individuals. The presented magazine ads and articles differed by experimental condition---the first experimental group ‘homemaker imagery’ was shown pages stereotypically portraying women in conventional domestic and parenting roles, taken from parenting magazines and women’s lifestyle magazines whereas the second experimental group ‘profession imagery’ was exposed to pages with counter-stereotypical images of women in professional, powerful, and influential social roles, culled from financial/business magazines. During the sign-up for the study, information on age, ethnicity, height, weight, and relationship status was collected. The baseline session included measures on interests for career activities and self-efficacy beliefs about corresponding occupations. After viewing magazine pages in the daily sessions, participants indicated their impressions on the pages, which included one question about
their perceived similarity to the portrayals. The post-session measured participants’ career interests and self-efficacy beliefs again.

4.2 Participants and Group Assignment

Participants of the present study were female undergraduate students who were enrolled in communication classes at a large Midwest university. They received monetary compensation of $50 for participation. A set of 127 white women who had signed up for participation were invited to participate in the study. These participants completed the baseline-measures session and 105 of them, with an average age of 20.25 years (SD = 1.375, range 18-26), continued to finish the daily measures and the post-test session.

The assignment to experimental groups was based on information from the sign-up and the baseline session and served to ensure equivalent composition of the experimental groups. A hierarchical cluster analysis with the baseline session measures (see related section below for details), using the Ward method and squared Euclidian distances, yielded a nine-clusters solution (per scree-plot of explained variance) and served to compile the two experimental conditions, so that each cluster was represented in each group in proportion to its share in the total sample. This approach served to ensure that the two experimental groups were equivalent regarding baseline measures and combinations thereof. The group assignment led to 53 participants in the “homemaker imagery” group and 52 participants in the “profession imagery” group.
4.3 Stimuli Materials and Experimental Manipulation

To expose the female participants to different representations of females’ social roles, the presented magazine ads and articles varied by experimental condition. We compiled pages from different magazines issued from 2008 to 2010. The experimental group ‘homemaker imagery’ saw pages portraying women domestic and parenting roles, taken from parenting magazines and women’s lifestyle magazines—Parenting, Mom360, Parents, and Working Mother. While many of these pages displayed one female as focus of the page, many additional pages showed a woman interacting with a child or evidently with her family. The experimental group ‘profession imagery’ saw pages with counter-stereotypical images of women in professional and influential social roles, culled from financial/business magazines such as Fortune, Money, and Inc. Magazine. Each of these pages featured one female as focus of the page. Finally, each experimental group also saw several neutral pages that did not depict individuals and that pertained to a variety of relatively gender-neutral topics and products. These distracter pages that were interspersed into the stimuli for the two conditions mainly came from magazines such as Times, Newsweek, Travel, etc. Both groups saw the same number of pages each day. In total, 190 different magazine pages were employed—80 manipulated pages plus 10 distracter pages for each experimental group.

To avoid sequence effects, half of the participants in each experimental group saw the stimuli pages in reversed order. That is, half saw a certain page as the very first in the Monday daily session, while the other half saw that same page as the very last page in the
Friday session et vice versa, and with all pages in between being reversed in sequence as well.

4.4 Procedures

Participants were recruited from the introductory communication classes at a large Midwestern university to sign up for an online study described as a project on “Magazine Enjoyment and Magazine Journalism”. The instructors of the classes spread the recruitment message through email, which informed recipients that college-aged females (18-30 years) were invited to participate in an online study on magazine advertising and magazine journalism with a claim that “This type of consumer research helps us to design more effective messages in future applications.” Participants were also told that the total participation time was estimated to be 3-4 hours, spread out into seven online sessions (with the specific dates listed), with each session taking a maximum of 30 minutes. Furthermore, they were informed that participants were to receive $50 as monetary compensation through mailed checks. A link in the email provided access to an online survey that presented a consent form and a sign-up form. During the sign-up procedure, participants answered several questions regarding age, ethnicity, height, weight, and relationship status, embedded in distracter questions such as whether they owned a car and how long they had lived at their current address. They were also asked about their email and mailing address, so that survey invites and compensation checks could be mailed out.
The formal experimental sessions were conducted exclusively through an online survey. After signing up, selected participants received another invitation link through the email address they provided in the sign-up process. This link directed them to the baseline-measures session that had to be completed on the designated date. In this session, participants completed a set of baseline questionnaires measuring their career interests and beliefs of self-efficacy for those occupations.

Three days after the baseline session, the link to continue the study was emailed to the participants, so that they could complete the first daily session. Likewise, four more daily sessions were completed online. Every time after participants finished the assigned session, the website automatically recorded their progress. In each of the daily measures sessions, participants were exposed to different magazine advertisements and articles according to the experimental conditions they were assigned to.

Upon accessing a daily session, participants were greeted with a welcome page that included the instructions as stated below:

“Welcome back for a daily session of our online study on magazine enjoyment! Today you will look at several magazine pages. We will then ask you about your personal impressions and evaluations of these pages. Before we get to this part, we ask you to indicate your moods and how satisfied you are TODAY with various aspects of your life. These questions are included in the study because personal moods and outlooks on one's own life have been shown to influence evaluations. As always, please take your time to respond to the questions and to review the magazine pages. Please take the online session in privacy without discussing it with others. Remember that you need to complete the session in one go, without interruption. You won't be able to login again for today’s session. Your session will be recorded as incomplete if it is ‘inactive’ for 20 min or longer. Thank you very much. You can start the session by clicking the button below.”
Participants then started to view 18 magazine pages with questions regarding image evaluations being interspersed between each page. These pages consisted of eight ads and eight articles, with ads and articles alternating. The only exceptions to this pattern were the distracter pages that were placed as sixth and thirteenth pages in this sequence. At the end of each daily session, participants were asked one question about their perceived similarity to the magazine portrayals which was embedded in other questions measuring overall viewing enjoyment and impression, attractions of the magazine portrayals, and social comparison process.

The post-test questionnaire followed three days after completion of the last daily session. Participants were asked to indicate again their interests for certain careers and their self-efficacy beliefs regarding these occupations.

4.5 Measures

4.5.1 Sign up Measures

*Age and Ethnicity.* For the purpose of the group assignment, participants were asked about their age and ethnicity in the following two questions: 1) How old are you? And 2) What is your ethnicity? As for the second question, five options were provided, which included African-American, Asia, Causation, Latinos, Native Americans, and Others.

*Body mass index.* Participants were asked to report their height and weight, which was later used to calculate Body Mass Index (BMI) and serve for group assignment. This measure was embedded in other demographic and distracter questions on the same page.
such as length of residence at their current address, car ownership status, and type of internet connection.

*Relationship status.* As for relationship status which was also used for group assignment, participants chose from the options of: 1) single; 2) in a relationship; 3) married; 4) divorced; and 5) widowed.

4.5.2 Baseline Session Measures

*Career interests and Self-efficacy beliefs.* Participants’ career interests and their corresponding self-efficacy beliefs were operationalized as career activity liking and career competence beliefs, respectively. These two concepts were measured with the shortened version of the Personal Global Inventory (PGI) (Tracey, 2010). The adopted PGI consisted of two separate types of items (activity liking and activity competence beliefs) focusing on the 8 basic interest scales (Social facilitating, Managing, Business Detail, Data Processing, Mechanical, Nature/Outdoors, Artistic, and Helping) and prestige (high and low) (Tracey, 2010). For career interest which was operationalized as activity liking, each item was rated on a 7-point scale ranging from 1 (not like at all) to 7 (like very much). Self-efficacy beliefs for each of the activities were rated on a 7-point scale as well, ranging from 1 (unable to do it) to 7 (very competent). A total of 40 activities were included in the measure. Accordingly, each basic interest scale was composed of interest and efficacy measures for 4 activities. The participants were provided with the following instruction before they started to take this measure:

“In the following, you will see a list of activities you might perform in your future career or job.”
Please look at the following list of activities and respond to each TWICE. Once regarding how much you LIKE the activity and once regarding your ABILITY or COMPETENCE to do the activity. Use the scales listed below to rate Liking and Competence.

Liking:

<table>
<thead>
<tr>
<th>Strongly Dislike</th>
<th>Neutral</th>
<th>Strongly Like</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Competence:

<table>
<thead>
<tr>
<th>Unable to do</th>
<th>Moderately Competent</th>
<th>Very Competent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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</table>

Each of these item types (liking/competence) yielded 23 different scores: 8 scales equally placed around the basic interest types, 6 RIASEC scores, the three dimensional scores of People/Things, Data/Ideas, and Prestige and the six separate scales of People, Things, Data, Ideas, High prestige, and Low prestige. For the purpose of the present study, only the separate scales of People, Things, High prestige and Low prestige were taken into account in the data analysis.

4.5.3 Daily Session Measures

Image evaluation. The image evaluation measure consisted of three statements and was interspersed after each magazine page. The items include: 1) this article/ad is interesting; 2) This article/ad informative; 3) The woman in this article/ad is likable. In the control condition, the third item was replaced with “The product in this article/ad is likable” to adjust to the content the control group viewed.
Perceived similarity to magazine portrayals. At the end of each daily session, participants were asked to indicate their overall impression on the entirety of ads and articles they saw on that day. Participants’ perceived similarity to magazine portrayals was measured on a daily basis with a statement embedded in these daily evaluation measures. The statement was written as “The women shown on the magazine pages are similar to me”. Among the distracters, two of the items measured participants’ overall enjoyment of viewing the magazine pages: 1) I enjoyed viewing/reading these magazine pages; and 2) When viewing the pages, I paid very close attention. Another three items pertained to participants’ specific feeling with the women on the magazine pages: 1) the women shown with the magazine pages are attractive; 2) The women shown on the magazine pages are influential; and 3) The women on the magazine pages value family life. The last two items measured whether participants engaged in social comparison process with the represented women. They are: 1) when viewing the magazine pages, I compared myself/my situation to the women shown on the pages; and 2) I would like to be like the women shown on the magazine pages. In the control condition, these two items were revised as: 1) when viewing the magazine pages, I compared my views/products I use to what was shown on the pages; and 2) I would like to learn more about the topics/products shown on the magazine pages. Participants were asked to rate how each of these statements applied to the stimuli with a scale ranging from 1 (not at all) to 7 (extremely).
Chapter 5: Results

To raise the validity and reliability of the collected data, the present study took into account how long participants spent viewing each of the magazine stimuli. With the viewing time automatically recorded in the online survey database, the average seconds participants spent on each page was calculated and analyzed (N=105, M=37.76, SD=24.56). The results of the participants who spent less than 15 seconds on average on a page were then excluded from the analysis. This process led to a total of 94 sets of data in analysis (N=94, M=40.83, SD=24.14), with 47 from the “homemaker imagery” group and 47 from the “profession imagery” condition.

As has proposed in Chapter 2, female participants’ gender-linked career interests were conceptualized along two dimensions: the People/Things dimensions and the Prestige dimensions. According to the theorization of Holland (1966), Prediger (1982), Lippa (1998, 2000) and Tracey (1996, 2010), interests in people-oriented occupations and low-prestige career were considered as women’s gender-typed career interests while interests in things-oriented vocations and high-prestige positions were understood as women’s non-traditional career interests.
5.1 Magazine Exposure and Career Interests

An analysis of variance was conducted with the experimental group as between-group factor and with the before-after change in scores of People, Things, High Prestige, and Low Prestige as within group measures. The experimental group yielded a significant impact on participants’ interests in people-oriented occupations, F (1, 92) = 4.325, p = .040, $\eta^2 = .045$ (See Appendix 1).

A paired t-test within each experimental group further showed how magazine exposure exerted influence in each condition. The “homemaker imagery” condition reported a significant increase in the interests in people-oriented occupations throughout the time of study period (N=47, M1=41.02, SD1=9.61, M2=43.58, SD2=10.45, t (1, 92) = -.24, p = .021), while “the profession imagery” group showed no significant decreases in people-oriented career interests (N=47, M1=44.09, SD1=9.05, M2=43.47, SD2=9.48, t (1, 92) = .572, p = .57). On the other hand, the experimental treatment had a marginal effect on interests in low-prestige career, F (1, 92) = 2.913, p = .091, $\eta^2 = .031$. The paired-sample t-test revealed significant post-exposure increases in low-prestige career interests within the “homemaker imagery” group (N=47, M1=7.06, SD1=3.74, M2=8.72, SD2=4.41, t (1, 92) = -.2.82, p = .007), but there was no difference in before-after interests in low-prestige occupations in the “profession imagery” condition (N=47, M1=7.0, SD1=3.10, M2=7.25, SD2=3.14, t (1, 92) = -.444, p = .659).

As for the non-gender-typed career interests along the People/Things and Prestige dimensions, the same ANOVA analysis also indicated a significant difference between the experimental groups regarding change in interests in both things-oriented occupations.
(F (1, 92) =5.27, p=.024, η²=.054, See Appendix 2) and high-prestige occupations (F (1, 92) =5.64, p=.02, η²=.058).

However, the directions of the post-exposure change were not consistent with those proposed in H2b, H3a, and H3b. As the paired-sample t-test reported, the “homemaker imagery” group actually increased the interests in things-oriented occupations after exposure (N=47, M1=20.15, SD1=9.86, M2=23.31, SD2=11.07, t (1, 92) =−2.182, p=.034), as opposed to the hypothesized decreases in H3a. However, there was no before-after difference in things-oriented career interests among those who viewed the professional imagery (N=47, M1=22.27, SD1=9.17, M2=21.06, SD2=6.98, t (1, 92) =.979, p=.333). According to the analysis of interests in high-prestige career, the “homemaker imagery” treatment did not yield a significant impact (N=47, M1=15.11, SD1=4.61, M2=15.94, SD2=4.68, t (1, 92) =−1.627, p=.111), while the effects the “profession imagery” condition approached a marginal significance on the opposite direction of H1b (N=47, M1=15.79, SD1=4.9, M2=14.83, SD2=5.31, t (1, 92) =1.73, p=.09), leading to decreases in interests among viewers. The tables in Appendix 3 and Appendix 4 summarized the results regarding the influence of magazine exposure on participants’ gender-linked career interests (See Appendix 3 and Appendix 4).

Here the analyses showed a significance difference in the change of both gender-typed career interests and nontraditional career interests between the “homemaker imagery” and “profession imagery” groups. Thus H1a and H1b were supported. More specifically, the exposure to images of conventional women led to increased interests in gender-typed career (people-oriented or low-prestige), supporting H2a. However, H2b
was defeated by the fact that the exposure to representation of professional did not lead to increases in interests in nontraditional occupations (things-oriented and high prestige). Furthermore, the “homemaker imagery” group yielded positive influence on things-oriented career interests and had no impact on interests in high-prestige occupations. Therefore, this treatment did not really affect viewers’ interests in nontraditional career interests, which means H3a was not supported, either. Similarly, H3b hypothesized a negative impact of exposure to professional imagery on gender-typed career interests and was not supported by the results showing no such before-after difference in the “profession imagery” condition.

5.2 Career Interests and Self Efficacy

To test the fourth and fifth sets hypotheses predicting how participants’ base-line self-efficacy affects the relationship between magazine exposure and career interests, another set of ANOVA were conducted with the same between-group factor and dependent variables but added the self efficacy beliefs for the corresponding occupations as the moderator. Each analysis focused on interests in and self efficacy for people-oriented career, things-oriented career, low-prestige career, and high-prestige career, respectively. According to the findings, the interaction between magazine exposure and self-efficacy beliefs for people-oriented career did not affect the experimental treatment on interests people-oriented occupations (F (1, 92) =1.096, p=.515). Similarly, the moderating effects of self-efficacy on interests in low-prestige occupations were not significant (F (1, 92) =1.412, p=.224). Furthermore, the same analyses also showed that there was even no association between base-line self-efficacy beliefs for people-oriented
occupations and participants’ change in the corresponding interests regardless of the treatment was only marginal (F (1, 92) =1.833, p=.216). Meanwhile, self-efficacy for low-prestige career did not affect the corresponding interests across the experimental groups as well (F (1, 92) =.05, p=.835). These results indicated that the impact of magazine exposure on gender-typed career interests did not depend on the self-efficacy beliefs for such occupations, which means H4a and H4b were not supported. Indeed, participants’ efficacy beliefs for gender-typed occupations did not even have direct influence on the change in corresponding career interests over time.

On the other hand, in the nontraditional career category, the interaction between experimental group and self-efficacy beliefs for things-oriented career exerted no significant impact on interests in things-oriented career (F (1, 92) =.948, p=.330). Moreover, self-efficacy for high-prestige career did not moderate the influence of magazine exposure on interests in high-prestige career as well (F (1, 92) =.005, p=.939). Yet the ANOVA reflected that controlling for the experimental treatment, self-efficacy for high-prestige occupations significantly impacted the corresponding career interests (F (1, 92) =6.292, p=.021), while efficacy beliefs for things-oriented career only marginally affect career interests independent of experimental groups (F (1, 92) =1.648, p=.188). Therefore the analyses as a whole did not support H5a and H5b, in that they showed no significant moderation of self-efficacy for specific types of occupations on media effects on interests in nontraditional, non-gender-typed career.
5.3 Perceived Similarity and Self-Efficacy Beliefs

The final set of ANOVA was conducted to address the process regarding perceived similarity proposed in the sixth and seventh set of hypotheses. With the same between-group factor of experimental group, the ANOVA exercised change in self-efficacy beliefs for each specific type of occupations (people-oriented, things-oriented, low-prestige and high-prestige) as dependent variable and average perceived similarity to magazine portrayals over five days as the moderator. In line with the gender-typed career category, the analyses did not yield a significant impact of experimental group on self-efficacy beliefs for both people-oriented occupations (p=.651) and low-prestige occupations (p=.913). Accordingly, perceived similarity to the magazine portrayals did not interact with magazine exposure to impact the change in self-efficacy beliefs for these two types of gender-typed career ($F_1 (1, 92) = .927$, $p_1 = .338$, $F_2 (1, 92) = .48$, $p_2 = .49$). In terms of the nontraditional occupations, the results also showed no significant between-group difference in the change of self-efficacy for the things-oriented occupations ($F (1, 92) = .664$, $p = .417$) and that for high-prestige career ($F (1, 92) = .028$, $p = .867$). Furthermore, the interaction between the perceived similarity and magazine exposure yielded no impact on the relationship between exposure and change in self-efficacy for things-oriented career ($F (1, 92) = .927$, $p = .338$). Along the same lines, the moderating effects of perceived similarity on change in self-efficacy beliefs for high-prestige occupations were not significant as well ($F (1, 92) = .104$, $p = .748$). Here the analyses did not show any significant moderating effects of perceived similarity to magazine portrayals on the treatment’s impact on change in self-efficacy.
beliefs for either gender-typed or nontraditional career over the period of time. Therefore, H6 (a/b) and H7(a/b), which predicted perceived similarity as moderator, were both not supported by the empirical results.
Chapter 6: Discussion

The way in which women are portrayed in terms of occupational roles is a crucial component in the complex but patterned representation of gender in mass media. As an essential institution for socialization, media incorporate the depiction of occupations and career into its construction of gender roles and relationships. By investigating how exposure to different magazine portrayals affects female audience’s career interests, the present study provides an additional perspective to reveal the impact of mediated gender representation on individuals’ gender identity, which has not been thoroughly explored by previous research.

6.1 Conclusions

In general, the prolonged experiment displayed a complex dynamic among magazine exposure, change of career interests, self-efficacy, and perceived similarity. Overall, the experiment supported H1a, H1b, and H2a but fail to support H2b to H7b. The results will be further elaborated with the guidance of the hypotheses. In general, the findings showed that magazine exposure did have a cumulative impact on participants’ gender-linked career interests. There was a significant difference in change of interests in gender-typed career between participants exposed to conventional image of women and those viewing the counter-stereotypical, professional representation, which supports H1a. Similarly, the two experimental treatments also led to distinct transformation in
participants’ interests in non-gender-typed occupations, which is consistent with H1b. In this sense, the present study confirmed the influence of magazine consumption across a period of time. Compared to the short-term research conducted before, this study offered extensive evidence for the longitudinal, cumulative effects of mass media, which more closely reflected the long-term process in real life.

Social Cognitive Theory (SCT) was proposed here as the primary framework for explicating the mechanisms under which the aforementioned difference occurred. Based on SCT, the present study hypothesized that: 1) the conventional female imagery led to increases in participants’ gender-typed career interests (H2a) and decreases in nontraditional career interests (H3a); and 2) the professional imagery made viewers raise their interests in nontraditional career (H2b) but reduce their gender-typed career interests (H3b). Unfortunately, the research findings only supported part of these hypotheses. On the one hand, the experiment has supported H2a, indicating that the exposure to conventional portrayals of women did increase female viewers’ interests in gender-typed career. These results reflected how mediated role model exerted influence on people’s own choice, as suggest by Social Cognitive Theory. However, viewing those stereotypical images also led to increases in interests in non-gender-typed career, which was opposite to H3a. On the other hand, participants in the “profession imagery” condition did not significantly change their interests in both gender-typed and nontraditional occupations, which means neither H2b nor H3b was not supported. This indicates that they were not as affected by the counter-stereotypical portrayals as their counterpart was influenced by the stereotypical images. Even if we counted the
corresponding p value as a marginal impact of “profession imagery” on the high-prestige occupations, the effect still went to the opposite direction from the hypotheses, showing that exposure to depiction of professional women tended to reduce viewers’ nontraditional career interests.

Therefore, although the prolonged exposure to different magazine female representations affected women’s career interests, the mechanisms under such process seemed not to be thoroughly explained by Social Cognitive Theory. This was particularly reflected from the magazine effects on women’s interests in non-gender-typed occupations. The mainstream expectation, consistent with SCT and Cultivation Theory, always falls in the assumption that seeing more professional and influential women in mass media helps women become more ambitious for such nontraditional career themselves. But the results here showed that participants did not actually learn from the counter-stereotypical representation. In contrast, they tended to stay even farther away from such professional models, especially regarding interests in positions with high prestige.

As for the impact of self-efficacy beliefs, none of the relevant hypotheses (H4a, H4b, H5a, H5b) were supported. It is surprising that neither of the effects of the two experimental treatments depended on participants’ baseline beliefs of their efficacy for the corresponding gender-typed and nontraditional occupations. This is not consistent with the social cognitive proposition, which especially emphasizes the role of base-line self-efficacy. Yet it is important to note that base-line self-efficacy for nontraditional career had a direct impact on the change of corresponding interests across the period,
while it did not interact with magazine exposure. In this sense, Social Cognitive Theory’s focus on self-efficacy still offers insights, but we need to further figure out how this individual difference is engaged in the media exposure process. One emerging assumption is that what takes effects might not be the base-line self-efficacy but the ongoing self-efficacy in change, given that the prolonged magazine exposure is an ongoing dynamic in which every element is internally related and keeps changing. Therefore, it is necessary for future research to not only consider participants’ relevant self-efficacy before and after exposure but also track the changing state of their beliefs during the exposure and see how such factor might moderate the media influence.

Furthermore, the present study did not prove the effects of participants’ perceived similarity to magazine portrayals in transforming their self-efficacy beliefs for different occupations. Overall perceived similarity did not interact with the magazine exposure in the experiment. Indeed the experiment group did not result in any significant change in participants’ self-efficacy for either gender-typed or nontraditional occupations in the first place. According to Social Cognitive Theory, the more similar one perceives to be with the role model, the more efficacious he/she feels about him/herself doing the same action, and in turn the more likely he/she imitate the model. However, the results here suggested that even if the participants felt similar to the exposed portrayals, they did not necessarily increase their self-efficacy for the occupational types referred in the images. Yet the present study did not detect the direct relationship between perceived similarity and career interests, which is also implied by SCT. Whether participant’s perceived
similarity to the magazine portrayals directly leads to increased interests in the occupations in the representation deserves further exploration.

6.2 Limitations

6.2.1 Theoretical Limitation and Discussion

As the foundational theoretical framework for the present study, Social Cognitive Theory did not sufficiently explain the whole process in the prolonged exposure, although it has worked well for other short-term experiments. Most interestingly, participants who saw the counter-stereotypical images of professional women did not really take those portrayals as their role models to simply imitate from them. They were almost not influenced by such professional female depiction in terms of their own career interests and self-efficacy. This indicates that viewers might have engaged in some other psychological processes beyond SCT’s propositions. Therefore, other media effects theories should be taken into consideration to better understand the prolonged exposure process.

Along those lines, Social Comparison Theory is probably an alternative for explicating some findings of the present study. Initially developed by Festinger (1954), Social Comparison Theory explains how individuals evaluate their own opinions and abilities by comparing themselves with others. The theory posits that in order to have stable, accurate appraisal of themselves, people have a tendency to compare themselves with others who are similar on the ability or opinion in question. In addition, Festinger (1954) also hypothesized that people “strive to be more capable of their current level of
performance and more capable than the persons with whom they compare themselves” (Taylor & Lobel, 1989). Later development and revision of the theory has incorporated several additional motives for comparison, such as self-enhancement, maintenance of a positive self-evaluation, avoidance of closure, etc. (Kruglanski & Mayseless, 1990; Suls, Martin, & Wheeler, 2002). Moreover, researchers have identified two main types of comparison: upward social comparison and downward social comparison. Upward social comparison occurs when individuals compare themselves with those who are deemed socially above them while downward social comparison takes place when people evaluate themselves in comparison with others less fortunate than them (Suls, Martin, & Wheeler, 2002). Since its introduction to mass communication research, Social Comparison Theory has been widely used to explain how audiences compare themselves with the others represented in mass media and in turn form their own ideas and behavior. The application of this theory has been especially fruitful in the body image studies, which show that women tend to compare themselves with the idealized female images in mass media and in turn gain lower perceptions of their own performance on relevant dimensions and lower satisfaction for themselves (e.g. Richins, 1991; Posavac et al., 1998; Cattarin et al., 2000, Jones, 2001; Morrison, Kalin & Morrison, 2004).

According to these relevant findings, it can be implied that participants in the present study were very likely to start comparing themselves with the same-sex magazine portrayals during exposure, which might have complicated the learning process Social Cognitive Theory hypothesizes. The viewers in the “profession imagery” group probably engaged in upward social comparison with those powerful and professional images of
women who were much superior to them from most social and financial dimensions. Since the social distance between the student participants and the represented professional women was obviously large, such upward social comparison was likely to cause more negative self-evaluation and satisfaction. Similar to the exposure to idealized body image, the exposure to professional women images might also change the participants’ comparison standards and their perception of their own performance and competence on relevant positions. As a result, those female viewers, instead of imitating the represented professionals, felt intimidated by those portrayals, lowered their self-efficacy for the relevant non-gender-typed occupations in social comparison, and finally maintained or even decreased their interests in nontraditional career. On the other hand, the participants in the “homemaker imagery” group were likely to initiate downward social comparison when they saw the conventional representation of women, which led them to think that as college students they should be more competent than those housewives in career achievement in general. These viewers thus increased their interests in both gender-typed and nontraditional occupations, as shown in the experiment. The above conjecture should cast light for future research on the integration of Social Comparison Theory to the study of media impact on audiences’ career development.

6.2.2 Methodological Limitations

Besides the theoretical limitations, the operationalization of this study also had several shortcomings, which possibly veiled the actual relationships among magazine exposure, women’s career interests, self-efficacy and perceived similarity to the portrayals. First, the study ultimately included valid data from 94 participants, with each
experimental cell having 47 respondents, respectively. This is a relatively small sample with little generalizing power. Moreover, all the participants were recruited from communication courses at a Midwestern university, which indicates that the convenient sample consisted mostly of communication major students. The academic pursuit of these participants was very likely to influence their career interests in a long-lasting and stable way independent of the magazine exposure. For example, Lent et al. (1994) saw academic development as dovetailing, developmentally, with career development. As those scholars pointed out, interests and skills developed during the school years ideally became translated into career selections (Lent et al., 1994). Therefore, as a field primarily dealing with social facilitating, interactional and other female-oriented activities, communication might have primed the participants majoring in it with salient aspirations for people-oriented and other female-dominated occupations. Since what they learn may not be much relevant to the things-oriented affairs, the participants had almost every reason not to increase interests in those occupations just after one-week exposure to the counter-stereotypical images. In a word, such limited, nonrandom sample had probably hampered the results to be generalized to a broader population. Yet the sampling process is reasonable in terms of a master thesis study with little financial support and sample availability. The maintenance of large sample is even more difficult for such prolonged study lasting for 10 days compared to those one-time experiments. Taking all these inevitable shortcomings into account, future research with greater financial support should recruit a larger and more diverse sample for examination.
Second, the operationalization of some key concepts here might not be sufficiently accurate to test the hypotheses, though every effort was made to use the most widely acknowledged measures. For example, participants’ self-efficacy for career was assessed by how they thought they were competent for the particular activities. It is true that such operationalization helped subtly reveal viewers’ perception about each occupation, but what it actually measured was perceived competence beliefs, which might still be slightly different from self-efficacy according to different participants’ understanding. Similarly, even the questions regarding career interests mainly focused on the degree of liking of the occupations. There is no guarantee that all the participants have taken the concept of “liking” as equal to “interests”. Whether the assessment of “liking” fully captured the connation of “career interests” thus remains a question. It is very likely that for some people career interests is a too broad concept to be measure only along the liking dimension. While Tracey (2010)’s scale, as the major measure in the present study, has been widely validated and used, it is not developed not without problems. With the increased focus on media impact and career development, such fundamental measurement also needs to be further validated, revised and extended.

Finally, the procedure of online exposure might interfere with the findings as well. The use of the internet has raised the possibility and feasibility to recruit a larger number of participants regardless of their geographical locations—that is—they do not need to impractically stay in a lab for 10 days to finish the study. But the online environment also causes some new problems. Especially, there is no ideal way to control the two conditions to be only different in their experimental treatment (magazine exposure).
According to their conditions, the participants viewed distinct portrayals of women only for about 45 minutes every day, and they were not controlled for what they were exposed in the rest of the days. It is thus very likely that the effects of the experimental groups were counterbalanced by the participants’ routine media consumption which filled them with the opposite representation to the treatments. This can particularly well explain why the “profession imagery” group was not much affected by the counter-stereotypical depiction: on each day those viewers might have seen much more stereotypical, conventional images of women besides that 45-minute research session, given that such traditional depiction still dominates the mainstream media representation in general nowadays. Besides that, the ways in which participants viewed the magazine pages could not be manipulated through the internet according to the researcher’s ideal. For instance, we could not regulate how much time they spent on each image and how carefully they viewed the pages. As a result, any possible distraction during the daily sessions tended to distort the real effects.

6.3 Contributions

Despite its potential limitations, the present study will still add important parts to the broader picture of media impact and people’s gender self-concept by making the initial attempt to detect the association between magazine exposure and female viewers’ career interests. The findings will contribute to both real-life media practices and academic research in mass communication.
6.3.1 Practical Contributions

On the practical level, the present study casts reflection on both media production and reception. As for the production of gender portrayals, the findings here tend to refute the dominant assumption that more counter-stereotypical depiction of women should encourage female audience to be more confident about their abilities and in turn achieve higher working positions and social status. As was shown in the prolonged experiment, simply exposing participants to those images of professional women did not necessarily generate positive effects, in that participants tended to engage in complicated psychological process during the exposure. Therefore, a better understanding of these processes should help the media production practices as a whole design more effective gender portrayals which will really help women increase their nontraditional career interests. Especially, media producers, if with the intention to help achieve gender equality, should be more cautious about increasing the amount of counter-stereotypical representation. On the other hand, the present study also informs the (female) audience to be more conscious about the potentially positive or negative impact of consuming mediated gender representation. Besides the efforts made from the production end, audience should also raise their media literacy to realize the potential media effects on their career development and try to take advantage of this to make improvements on their own.
6.3.2 Academic Contributions

On the academic level, this study initiates the concern of media effects on people’s gender-linked career interests, which might guide the research in gender and media into an extensive direction. Its focus on the cumulative influence of magazine exposure will inspire future research to further detect the similar effects of other media forms such as television, films, video games, etc. To complete the puzzle, future research should consider three crucial issues which the present study did not allow space for discussion. First, we need to figure out the psychological mechanisms underlying the process through which audience’s career interests are affected by the gender representation in mass media. Social Cognitive Theory was not proven here to be the most suitable framework for explaining the whole prolonged exposure, which partially resulted from both the theoretical and methodological limitations. The magazine viewing process is too complicated to be integrated in one single theory. Thus later studies can refer to more diverse theories to explicate the phenomenon, among which Social Comparison Theory should be the key model to consider. Second, based on the revise of the current operationalization, future research ought to look at other factors that may engage in the process. Perceived similarity showed no moderating effects in the present experiment. Yet some other individual differences have not been examined here, such as perceived attractiveness of the portrayals, the overall viewing enjoyment, self-esteem state, and most importantly people’s social comparison readiness. Indeed, the consideration of a wider range of theories is very likely to bring richer moderating factors to attention.
Third, it is necessary for future research to pay sufficient attention to the gradual transformation in gender representation in mass media. With the rapid social, economic, and cultural change nowadays, there is no doubt that media’s portrayals of women (and men as well) are constantly engaged in evolution, transformation, deconstruction and reconstruction. We are approaching an era when the dichotomous classification and manipulation of stereotypical and counter-stereotypical gender representation tends to be oversimplified in the first place. For example, even among the stimuli of the present study, it is easy to recognize a few images of professional women who simultaneously hold feminine traits rather than the expected completely masculine looking. Given that more and more scholars have found that numerous female (and male) images in mass media represent neither traditional femininity nor hegemonic masculinity but a more fluid version of “gender performance” (e.g. Gauntlett, 2008; Hanke, 1998; Gill, 2007), we have to come up with some more innovative ways of stimuli selection and manipulation so as to discover the influence of these representations in the contemporary period.

6.4 Future Directions

Research in gender representations and its effects on audience’s gender-linked career interests can contribute to achieving the fulfillment and development of individuals in the contemporary society and young women in particular. The present study just opens the beginning of such examination. With the ultimate goal of achieving gender equality and diversity in various occupations, we should aim to transform people’s career interests in a more progressive way in the first place. Especially, the foundation for women to get rid of their traditional gender roles and take more powerful
positions in the society is that they themselves should develop such aspirations and be
confident of their doing as well as men with power and authority. The discovery of
mediated gender representation constantly affecting audience’s career development offers
us rich implications for how we can achieve such transformation in women’s career
ambitions with the use of mass communication. While media representation has long
been seen as a major way of cultivating the traditional gender roles into women, the
understanding of the underlying processes still implies that mass media have the potential
to display more diverse gender depiction and in turn influence women’s career interests
in a positive direction.
References


*Developmental Psychology*, 5, 244-255.


Appendix 1

Figure 1. Y-axis: overall change in interests in gender-typed career. X-axis=Time (Before and after exposure). “Homemaker Imagery” group (n=47), “Profession Imagery” group (n=47).
Figure 2. Y-axis: overall change in interests in non-gender-typed career. X-axis=Time (Before and after exposure). “Homemaker Imagery” group (n=47), “Profession Imagery” group (n=47).
Table 1.

The influence of experimental group on participant’s interests in gender-typed career, 

*M (SD)*

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<tr>
<td></td>
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*Note.* M1: pre-exposure means; SD1: pre-exposure standard deviations; M2: post-exposure means; SD2: post-exposure standard deviations
Appendix 4

Table 2.

*The influence of experimental group on participant’s interests in non-gender-typed career, M (SD)*

<table>
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<tr>
<td></td>
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*Note.* M1: pre-exposure means; SD1: pre-exposure standard deviations; M2: post-exposure means; SD2: post-exposure standard deviations