Enduring Links: Parents' expectations and their young adult children's gender-typed occupational choices

Janis E. Jacobs, Christina S. Chhin*, and Martha M. Bleeker
Pennsylvania State University, University Park, PA, USA

The goals of the current study were to examine (1) the relation between parents' gender-typed occupational expectations for their children at age 15 and their children's own reports of occupational expectations at age 17; (2) the long-term relations between parents' gender-typed occupational expectations for their children at age 17 and their children's actual occupation at age 28; and (3) the relation between job satisfaction and having a gender-traditional or nontraditional job. The results indicated that parents' gender-typed occupational expectations were significantly related to children's own expectations and to their actual career choices, and job satisfaction was significantly related to having a gender-typed career. These findings suggest that parents' early gender-typed expectations for their children's occupational achievements were highly related to the actual occupational decisions made by the adult children.

Introduction

Although the mathematics performance gap between males and females has narrowed over the past decade (e.g., National Centre for Education Statistics (NCES), 2001), there continues to be a gulf between the number of women and men who pursue college degrees in engineering, physical sciences, computer sciences, and mathematics. Indeed, a recent report from the National Science Foundation (2002) indicates that women constitute less than 24% of the science and engineering labor force in the United States. This gender difference is equally pronounced in other fields. For example, men are more likely than women to be employed in construction, protective service, maintenance, farming, fishing, and forestry occupations, whereas women are more highly concentrated in healthcare and education occupations.

*Corresponding author. Department of Human Development & Family Studies, Pennsylvania State University, S-113 Henderson Bldg., Pennsylvania State University, University Park, PA 16802, USA. E-mail: cschhin@gmail.com

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(US Census Bureau, 2000). These statistics indicate that gender continues to be an important factor in occupational choices at all levels of occupational prestige.

The choices men and women make in terms of their occupations, however, are not necessarily made independently. Teachers, parents, peers, and others may influence youths’ achievement and interests long before educational and occupational decisions are made. Although many socializers and experiences help shape children’s values, we will focus primarily on the role of parents. Specifically, we will examine the role of parents’ expectations in shaping children’s gender-typed occupational expectations during late adolescence and their actual occupational choices during young adulthood.

**Parent Socialization Model**

Over the past 20 years, research using Eccles’-Parsons, Adler’s, and Kaczala’s (1982) Parent Socialization Model has highlighted the important role parents play in the development of children’s achievement choices (see Jacobs & Eccles, 2000). According to the model, characteristics of the parents, family, and neighborhood, along with characteristics of the child, are expected to influence parents’ behaviors and their general beliefs about the world, as well as their specific beliefs about their children. These beliefs will then influence parenting behaviors and expectations, which, in turn, will affect child outcomes such as educational and career choices. We focus here on parents’ expectations for their children’s achievement, parents’ gender-typed beliefs, and their children’s occupational expectations and choices.

**Previous Research**

We have previously documented the indirect effects of parents’ general beliefs on the goals that they set for their children in the area of gender stereotyping (Jacobs, 1991; Jacobs & Eccles, 1992). This research suggests that parents’ gender stereotypes directly impact their perceptions of their children’s abilities, resulting in more positive perceptions for children favored by the stereotypes (e.g., daughters for social skills, sons for math and sports skills) (Jacobs, 1991; Jacobs & Eccles, 1992). Parents’ perceptions, in turn, influence their children’s performance and self-perceptions of abilities in each domain, even after controlling for the children’s previous performance. Based on the results from previous studies (Jacobs, 1991; Jacobs & Eccles, 1992), it is likely that parents’ beliefs and expectations for their children’s future occupations (e.g., feminine, masculine, or neutral occupations) will affect children’s own beliefs and future expectations for their occupations.

Although many studies have shown that parents are powerful agents in influencing the goals, choices, and behaviors of their children (Farmer, 1985; Schulenberg, Vondracek, & Crouter, 1984; Trusty, 1998), most studies have not been able to examine the long-term relations between parents’ earlier expectations and their children’s later career choices, because most studies have been either cross-sectional
or span only a few years when they are longitudinal. It is impossible to study the relations between parents’ earlier attitudes and expectancies and the later educational and career choices of their children without longitudinal data that cover a number of years and few studies have such longitudinal data.

One exception is a recent study in which we examined the longitudinal relation between parents’ expectations and children’s choices, focusing on mothers’ gender stereotypes and perceptions of their children’s math abilities during adolescence and their children’s career choices in young adulthood (Bleeker & Jacobs, 2004). We found that mothers’ earlier perceptions of their adolescent children’s abilities were related to young adults’ self-perceptions of math-science ability 2 years after high school, with adolescents’ self-perceptions of math ability during 10th grade mediating the relation between mothers’ perceptions and adolescents’ later beliefs. Furthermore, mothers’ earlier predictions of their adolescent children’s abilities to succeed in math careers were significantly related to later career choices in math and science, even after controlling for adolescents’ actual math abilities. Female young adults whose mothers reported low perceptions of their abilities to succeed in math careers were 66% less likely to choose careers in the male-dominated areas of physical science/computing than careers in non-science areas (Bleeker & Jacobs, 2004).

In another study, we examined the long-term relations between parents’ expectations and children’s choices and found that parents’ educational expectations for their children during adolescence were significantly related to their children’s actual educational attainment at age 28 (Chhin, Jacobs, Bleeker, Vernon, & Tanner, in press). When children were 15 years of age, parents predicted the likelihood of their child getting a full-time job after high school, obtaining technical or vocational training after high school, or graduating from a 4-year college or university. The results showed that children with mothers who had high expectations that their children would get full-time jobs after high school were 61% more likely than other children to meet mothers’ expectations and actually get a job after high school. In addition, children with mothers who had high expectations for obtaining a college education were 64% more likely to graduate from college than those whose mothers had lower expectations. Similar to the results found for mothers, children whose fathers had high expectations for their children obtaining a full-time job after high school were 62% more likely than other children to actually get a full-time job. In addition, children with fathers who had high expectations for their children obtaining a college education were 69% more likely than other children to actually graduate from college by age 28.

The findings from these two studies suggest that parents’ early perceptions of their children may be shaped by general stereotypic beliefs, which, in turn, are related to children’s later self-beliefs and career choices. Thus, parents’ gender stereotypes can certainly play an important role in shaping children’s decisions to choose gender-traditional or gender-nontraditional occupations. In addition, these findings suggest that parents’ expectations for educational achievement are largely on target, but these studies stopped short of examining gender-differentiated expectations and occupational outcomes. The current study builds upon previous research by examining
whether parents’ expectations for children’s gender-typed occupations at age 15 are related to their children’s own reports of their occupational expectations at age 17. In addition, the current study examined whether parents’ expectations for their children at age 17 are related to their children’s actual occupational choices at age 28. The goal was to examine the long-term relations between parents’ expectations and their children’s expectations during high school and to then relate those expectations to the actual occupations in which the children found themselves by their late twenties. This point during early adulthood was selected because most young adults have completed education and training programs by age 28 and have embarked on a first job or career.

It is clear from these previous studies that parents’ beliefs and expectations can have long-term consequences for their children’s educational and career choices. It is important, however, to go beyond examining the predictors of children’s gender-typed occupational choices (i.e., parents’ expectations) and examine psychosocial correlates of gender-typed occupational choices. Specifically, being in a gender-traditional, gender-nontraditional, or gender-neutral occupation may be differentially related to job satisfaction for men and women. Previous research has found that women, in general, tend to report higher levels of job satisfaction than men (Loscocco, 1990); level of job satisfaction, however, has also been found to differ by the gender-typed nature of the job. Specifically, both men and women in male-dominated, masculine-typed occupations and men and women in sex-proportionate, gender-neutral occupations have reported higher levels of job satisfaction than men and women in female-dominated, feminine-typed occupations (Harlan & Jansen, 1987; Moore, 1985). One explanation for these differences in job satisfaction is that more masculine or male-typed occupations tend to provide greater income, job freedom, and job challenge than feminine or female-typed occupations (Moore, 1985). An alternative explanation, however, is that job satisfaction in gender-typed occupations is related to earlier expectations for the kind of occupation one might be likely to have. The current study builds upon earlier findings by examining whether young adult children’s reports of job satisfaction are related to whether they have a gender-traditional, gender-nontraditional, or gender-neutral occupation.

Summary

The over-arching goal of the current study was to examine the long-term relations between parents’ gender-typed occupational expectations and their children’s expectations and occupational choices. First, it was hypothesized that parents’ gender-typed occupational expectations will have a significant bearing on their adolescent children’s own gender-typed occupational expectations. Second, it was hypothesized that parents’ gender-typed occupational expectations will have a long-term effect on their children’s actual occupational choices in young adulthood. Finally, having a gender-traditional, nontraditional, or neutral job in young adulthood was predicted to be related to levels of job satisfaction.
Method

Data used in this study were part of a large, longitudinal investigation (Michigan Study of Adolescent Life Transitions [MSALT]) which was designed to examine children's and parents' achievement attitudes during adolescence and young adulthood. During Wave 1 of MSALT data collection, children were members of 143 sixth-grade math classrooms located in 12 school districts in primarily White, middle- and working-class suburbs outside of a large Midwestern city. School districts were selected to ensure a broad representation of schooling philosophies and procedures. All students and their parents within each classroom were asked to participate, and 80% of the students and 62% of the parents participated. The parents included in the study were considered to be the significant mother and father figures in the household, and these adults could be the biological parents, stepparents, or legal guardians. Although the families in the current study were not ethnically diverse, they were diverse in social class. Mothers' and fathers' highest levels of education ranged from grade school to having an advanced professional degree, and mothers' and fathers' individual incomes ranged from under $10,000 to over $80,000. The majority of mothers and fathers reported attending a few years of college or technical school as their highest level of education; the average income for mothers was $25,000, and the average income for fathers was $55,000.

Adolescents completed questionnaires in their math and science classrooms, and reported on their relationships with parents, their academic perceptions, and career efficacy. Parent questionnaires were mailed to the homes of families who agreed to participate. When their children were ages 15 and 17, parents responded to questionnaire items on a variety of topics, including the item used in this study concerning their expectations for their children's future educational attainments. Children were surveyed 2 years later at age 17, concerning their expectations for future educational attainments, and again at age 28, to ascertain their employment.

Measures

When their children were ages 15 and 17, parents were asked the following open-ended question: "What kind of job do you think your child will actually have as an adult?" The responses that parents gave to this question were then categorized into male-typed, female-typed, or gender-neutral occupations based upon the 1980 US Census Bureau's classification of occupation by sex. Examples of male-typed occupations included engineer, construction worker, and doctor; female-typed occupations included nurse, homemaker, and teacher; and gender-neutral occupations included psychologist, writer, and factory worker. The 1980 US Census Bureau statistics (US Census Bureau, 1980) rather than the 2000 US Census Bureau statistics were used to classify parents' responses, because data were collected from parents in 1986.

At age 17, adolescents were asked to report on their occupational expectations. Specifically, they were asked the following question: "What specific job do you think you will actually have when you are age 30?" Similar to parents' reports,
the occupation listed by the adolescents were classified as either male-typed, female-typed, or gender-neutral, based upon the 1980 US Census Bureau’s classification of occupation by sex.

In addition, when the children became young adults (age 28), they were asked to report their main occupation or job. To keep with the classification scheme used for parents’ responses of their children’s expected occupation at age 17, the young adults’ reported occupations were also classified as male-typed, female-typed, or gender-neutral, based upon the 1980 US Census Bureau statistics. Finally, the young adults also reported on their level of job satisfaction using an 8-item Likert scale, which ranged from 1 = never to 7 = daily (example item: “I feel that my work is meaningful and important”). The Cronbach alpha for this scale was .87.

Results

To build upon the results from previous research, we examined the relations between parents’ gender-typed occupational expectations for the children at age 15 and their children’s reports of their own gender-typed occupational expectations at age 17. In addition, the long-term relation between parents’ gender-typed occupational expectations for their children at age 17 and their children’s actual occupation choices at age 28 were examined. Finally, the relation between having a gender-traditional, nontraditional, and neutral job on job satisfaction was examined.

Adolescent Children’s Occupational Expectations

As described previously, both parents’ and adolescents’ reports of their gender-typed occupational expectations were classified into three categories based upon data from the 1980 US Census Bureau: male-typed, female-typed, or gender-neutral. In order to maximize the number of responses in each cell of the chi-square analyses, the original classification of occupations into these three categories (male-typed, female-typed, and neutral) were collapsed into two categories (gender-traditional and gender-nontraditional). For girls, female-typed occupations were classified as gender-traditional, whereas male-typed and gender-neutral occupations were classified as gender-nontraditional. For boys, male-typed occupations were classified as gender-traditional, whereas female-typed and gender-neutral occupations were classified as gender-nontraditional.

Chi-square analyses were then conducted to examine the relation between parents’ gender-typed occupational expectations for their adolescent and the adolescents’ own gender-typed occupational expectations. The analyses were conducted separately by both parent and child sex. A significant relation between mothers’ gender-typed occupational expectations and daughters’ occupational expectations was found, $\chi^2 (1, N=116) = 10.16, p < 0.001$, and between mothers’ gender-typed occupational expectations and sons’ expectations, $\chi^2 (1, N=89) = 4.37, p < 0.05$ (see Table 1). In comparison, the results for fathers revealed a significant relation between fathers’ gender-typed occupational expectations and
daughters’ expectations, $\chi^2 (1, N = 68) = 5.92, p < 0.05$, but not for sons’ gender-typed occupational expectations (see Table 1). These results indicate that parents’ gender-typed occupational expectations are indeed related to adolescents’ occupational expectations 2 years later.

**Adult Children’s Actual Occupations**

Building upon the previous set of analyses that showed a significant relation between parents’ expectations and children’s expectations, the next set of analyses examined the relation between parents’ gender-typed occupational expectations for their children at age 17 and their young adult children’s actual occupations at age 28. Similar to the previous set of analyses, the occupations were categorized as gender-traditional and gender-nontraditional. Descriptive statistics on the young adults’ actual occupational choices at age 28 were conducted using chi-square analyses. The results showed significant sex differences in the young adult children’s actual gender-typed occupations at age 28, $\chi^2 (1, N = 971) = 80.07, p < 0.001$. Specifically, 67.6% of men had a gender-traditional occupation, whereas only 38.4% of women had a gender-traditional occupation.

To examine the role of parents’ expectations on children’s gender-typed occupational choices, chi-square tests were conducted separately by parent and child sex (see Table 2). Results indicated that mothers’ expectations for their daughters at
age 17 were significantly related to their daughters’ actual gender-typed occupations at age 28, $\chi^2 (1, N=95) = 7.48, p < 0.01$. In comparison, mothers’ expectations of their sons’ gender-typed careers at age 17 were not significantly related to their sons’ actual occupations at age 28. Similar to the results found for mothers, fathers’ expectations of their daughters’ gender-typed careers at age 17 were significantly related to their actual career choices at age 28, $\chi^2 (4, N=60) = 5.92, p < 0.05$. In addition, fathers’ expectations for their sons at age 17 were significantly related to their sons’ career choices at age 28, $\chi^2 (1, N=56) = 7.47, p < 0.01$.

The findings from this set of analyses indicate that both mothers’ and fathers’ gender-typed occupational expectations for their children at age 17 were related to children’s actual occupational choices 11 years later at age 28. In contrast to the first set of analyses examining the relation between parents’ and children’s gender-typed occupational expectations, fathers’ occupational expectations significantly predicted both daughters’ and sons’ gender-typed career choices at age 28, whereas mothers’ occupational expectations were only predictive of daughters’ career choices at age 28.

**Adult Children’s Job Satisfaction**

The results from the previous set of analyses suggest that parents play an important role in shaping their children’s gender-typed career choices through their expectations. In addition to predicting children’s gender-typed career choices, it is also
important to look beyond the predictors and examine the outcomes related to choosing gender-traditional or gender-nontraditional careers. To examine this relation, the next set of analyses examined job satisfaction as a function of the young adult children's gender-typed career choice. Unlike the previous set of analyses, this next analysis classified gender-typed occupational choices into three categories—gender-traditional, gender-neutral, and gender-nontraditional. Univariate ANOVAs were conducted with the young adults' gender and gender-typed occupation as the predictors and job satisfaction as the outcome.

The results from this set of analyses revealed a significant main effect of gender with women having higher levels of job satisfaction than men, $F(1, 762) = 6.78$, $p < 0.01$; $M_{Women} = 4.74$, $SD = 1.29$; $M_{Men} = 4.63$, $SD = 1.33$. In addition, a significant interaction of gender and gender-typed career choice on job satisfaction was found, with men having lower levels of job satisfaction in gender-nontraditional careers than women, $F(2, 762) = 4.74$, $p < 0.01$ (see Figure 1). When men and women were examined separately in post hoc tests, men in gender-traditional jobs had significantly higher levels of job satisfaction than men in gender-nontraditional jobs, $M_{Traditional} = 4.74$, $SD = 1.24$; $M_{Nontraditional} = 3.96$, $SD = 1.48$; $p < 0.05$. In comparison, post hoc tests revealed that women in gender-nontraditional jobs had higher levels of job satisfaction that women in gender-neutral jobs, $M_{Nontraditional} = 4.92$, $SD = 1.23$; $M_{Neutral} = 4.57$, $SD = 1.46$; $p < 0.05$. These results indicate that the context of occupation, in this case the gender-typed nature of the

Figure 1. Young adult children's job satisfaction as a function of gender-typed occupational choice
job, can have a significant bearing on job satisfaction especially when the individual's gender is taken into consideration.

**Discussion**

The goal of this study was to build on previous research regarding the importance of parents’ gender-typed expectations for their children’s achievement by examining those relationships longitudinally and by investigating actual occupational aspirations and occupational choices. In addition, we wanted to assess the relations between job satisfaction and the gender-typed nature of the occupation.

We began by examining the relations between parents’ gender-typed occupational expectations for their adolescents and the adolescents’ own reports of occupational expectations 2 years later. We found that parents’ gender-typed occupational expectations were highly related to adolescents’ later expectations, but that this relation varied depending on the sex of the parent and of the adolescent. Fathers’ expectations were related to their daughters’ later gender-typed occupational expectations, but not to those of their sons. The expectations of mothers, however, were related to those of both daughters’ and sons’ gender-typed occupational expectations 2 years later. Although causality cannot be inferred from these findings, they suggest that parents’ earlier gender-typed expectations for career and job choice are similar to those held by their adolescents 2 years later. This could be due to the fact that their children held consistent career goals throughout this time and their parents’ expectations merely reflect those goals; however, this finding is consistent with our earlier studies examining the relations between parents’ gender stereotypes and their children’s later achievement choices (Jacobs, 1991; Jacobs & Eccles, 1992).

In addition, these findings support the Parent Socialization Model developed by Eccles and colleagues (1982), by providing longitudinal evidence of the relations between parents’ beliefs and the later motivation of their children to pursue particular fields. Although these data do not explain the way in which parents’ expectations might be communicated or how children’s achievement choices are made, the Eccles’ model suggests that parents’ roles may shift from sharing their perspectives and providing exposure, opportunities, and role modeling at early ages to providing encouragement and guidance for activities that continue to be supportive of the child’s developing interests in certain occupations. We have tested and found support for each of these patterns of parent influence (e.g., Eccles, 1994; Jacobs & Eccles, 1992). Over time, children develop their own levels of interest in certain domains and integrate these interests or values into their self-systems. Ultimately, the values that are incorporated into one’s self-beliefs will affect future task choices. As shown by Larose, Ratelle, Guay, Senécal, and Harvey (this issue), children’s self-efficacy beliefs can play an important role in vocational outcomes, especially for girls.

After establishing the short-term links between parents’ and adolescents’ gender-typed career expectations, we wanted to extend this to examine the relations between parents’ earlier occupational expectations and the gender-typing of their young adult
children’s actual occupations 11 years later. Not surprisingly, we found significant sex differences in the young adult children’s actual occupations at age 28, with a greater percentage of men having gender-traditional occupations than women. In addition, fathers’ occupational expectations significantly predicted both daughters’ and sons’ job choices at age 28, whereas mothers’ occupational expectations were only predictive of daughters’ job choices at age 28. One potential explanation for the failure of mothers’ expectations to relate to sons’ actual occupational choices is that there is little variability in these predictions and choices for males; however, it will be important to examine this relationship in diverse samples to see if the finding replicates.

These findings underscore the importance of fathers’ perceptions within the family. Many studies collect data from mothers alone, often because fathers are less likely to participate; however, this practice gives us little information about the important role that fathers’ expectations might play in the career choices of their adolescents and young adult children. The current study was able to contribute to the literature by examining outcomes related to both mothers’ and fathers’ expectations of their children. An important limitation of the current study, however, was the inability to control for important family characteristics such as socioeconomic status (SES) and family structure. There may be differences in parents’ gender-typed occupational expectations by SES and family structure; future research would benefit from examining how these variables may longitudinally impact children’s educational and occupational choices.

The final goal of this study was to consider young adult children’s satisfaction with their occupations, depending on the gendered nature of their occupation. We found support for previous research (e.g., Losocco, 1990), indicating that females, overall, were more satisfied than males with their jobs. In addition, the gender-typing of the occupation also added to satisfaction or lack of satisfaction; males were less satisfied in gender-nontraditional jobs than females, and males in gender-traditional jobs reported higher levels of satisfaction than males in either nontraditional or neutral occupations. The reverse was true for females, with those in gender-nontraditional jobs reporting higher levels of satisfaction than females in gender-neutral occupations. It is interesting that greater satisfaction was reported by women who held male-typed rather than gender-neutral occupations. These findings are somewhat different from earlier studies conducted the 1980s (e.g., Harlan & Jansen, 1987; Moore, 1985), indicating that those in gender-neutral occupations reported the greatest satisfaction. This may be a cohort effect, indicating that reports from females in the beginning of the 21st century differ from those 20 years earlier because of societal changes in the number of females in gender-neutral occupations, resulting in a greater value being placed on females succeeding in male-typed careers. In addition, it may be more difficult for women to succeed in male-typed careers, thus, if they hold such positions they may feel especially interested or engaged in these occupations, leading to greater satisfaction.

Although not surprising, these findings support the fact that the gender-typing of jobs influences not only which occupations females and males choose, but also how
satisfied they are with their chosen occupations. Females in male-typed occupations are much more satisfied than are males in female-typed occupations. This may be because it is considered difficult to make it in a male-dominated workplace, so only those women who are especially drawn to such positions take them. Although not examined directly here, the differences in satisfaction between men and women in opposite-gendered occupations could be a result of females choosing these occupations and males ending up in them by default. This point is suggested by the data in Table 1 showing that compared with women, very few men expected to end up in gender-nontraditional occupations. Despite the satisfaction felt by those women who enter gender-nontraditional occupations, the numbers in such occupations in these data and in national figures continue to be low. As guidance counselors, teachers, and parents help young women make choices about which fields to pursue, it may be especially important for them to encourage females into gender-nontraditional fields of interest that are likely to result in high levels of satisfaction.

Conclusion

Our findings suggest that adolescents and young adults are making career choices within the context of gender-typed parental expectations and a gender-typed world of occupational opportunities. Within this environment, it is not surprising that adolescents’ career aspirations are also gender-typed; that their career choices are gender-typed in young adulthood; and that young adults’ satisfaction with their jobs is related to the gender-typing of the occupation. We know that many factors influence occupational choices and other papers in this issue have highlighted some of those factors, such as prestige (Shapka, Domene, & Keating) and intrinsic and utility values (Watt). This study also suggests that parents play an important role in their children’s career choices. Due to the longitudinal nature of this study, we were able to see the relations between parents’ earlier expectations and their children’s occupational choices 13 years later. Without data spanning the period during which adolescents’ early speculations about preferred occupations turn into their actual job choices in young adulthood, it would be impossible to understand the role parents play in constructing and supporting the gendered environments in which adolescents consider future occupations. The results of this study make it clear that parents’ gender-typed expectations continue to be fulfilled as young people begin their adult roles and make their own career choices. This fact suggests the need to educate parents about the satisfaction found by females in gender-nontraditional fields, the range of occupational options available to their daughters (as well as their sons), and to the important roles their opinions and parenting play in later career decisions.

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