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Occupational Possible Selves: Patterns Among Male and Female Undergraduates

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This study uses the possible selves theory (Markus & Nurius, 1986) to examine the differences between 27 undergraduate men and 27 undergraduate women in their perceptions of their future occupational possibilities. Participants rated a list of feminine, masculine, and neutral jobs on how much they feared, expected, and idealized each one. Analysis was done using a within-subjects repeated measures MANOVA test and backward elimination regression analysis. Both men and women were found to fear feminine jobs more than they expected or idealized these jobs (all p s < .001). Women were found to fear masculine jobs more than they expected (p < .001) but not more than they idealized these jobs (p < .060). Occupational self-efficacy and support of the women's movement were also analyzed for their possible influence on fear of masculine jobs, using the Attitudes Toward Feminism and the Women's Movement Scale and the Task-Specific Scale of Occupational Self-Efficacy, but no significant predictors were found.

Women first began to enter the labor force in large numbers during World War II, and since then the percentage of women who work outside the home has steadily increased. It is estimated that by the year 2000, 81% of American women will be in the labor force (Betz, 1994). Nearly as many women as men hold jobs outside the home (the work force consists of 45% women) although the nature of their careers is still drastically different. Women earn far less than men because of sex-based wage discrimination and occupational sex-segregation (women are largely concentrated in low-paying, low-status occupations; Betz).

Young women who are in higher education and those just entering the work force tend to avoid traditionally male occupations, especially those that are math- and science-based, even though they may have aptitude and interest in those areas. When men and women of equal aptitude are compared, women's career aspirations and choices are consistently less ambitious. In other words, women seem to avoid occupations that entail high prestige, responsibility, and power. Ironically, women are higher achievers than men at all levels of education from elementary school through college (Betz, 1994). Why are these skills not recognized and employed when women decide to pursue a career?

Betz (1994) identifies several barriers to women's career development, including societal stereotypes which are reinforced by parents, teachers, and others;

lack of role models in higher education; gender-biased career counseling; home-career conflict which causes women to downscale their career aspirations; and lower academic self-esteem and career-related self-efficacy. All of these factors are either directly or indirectly related to a woman's self-concept, that is, who she thinks she is, and who she expects to be.

In the past, most career development research has focused on males, and even early research on women's career development ignored issues such as home-career conflict, early socialization toward "femininity," and the influence of family members' restraining expectations. Career development theorists have long recognized an individual's personality and his or her environment as the two fundamental determinants of occupational choice, but only recently have researchers begun to focus on gender differences in socialization as a significant environmental variable (Chalk, 1994).

Images and expectations imposed by family members and by society play a major role in the development of a self-concept, and college women with high self-efficacy are more likely than women with low self-efficacy to engage in nontraditional career activities (Nevill & Schleckler, 1988). Williams & McCullers (1983) found that parents of women who chose atypical careers—those traditionally held by men—were more

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open-minded regarding nontraditional jobs for women than parents of women who chose typically female jobs. Therefore, socialization is an important factor to consider when studying how women see their career possibilities.

According to Betz and Fitzgerald (1987), compared to men, women see fewer occupations as suitable for them, select occupations from a narrower range of options, and more often choose careers that are inconsistent with their vocational interests. In addition, Betz and Hackett (1981) found that male undergraduates displayed equal levels of self-efficacy with regard to masculine and feminine jobs, while female undergraduates had significantly lower levels of self-efficacy for masculine occupations.

Possible Selves

The theory of possible selves is one way of approaching the development of the self-concept. According to Markus and Nurius (1986), the self-concept contains a number of "possible selves," which are images of what one ideally will become in the future, what one expects to become, and what one fears becoming. For example, a college woman's possible selves might include ideally becoming a surgeon, expecting to become a mother, and fearing being rejected from medical school. Possible selves are a compilation of a person's unique life experience, his or her interactions with others, and interpretations of information from the media. Possible selves give people a way to think about and plan for the future, and serve as a motivational force (Chalk, 1994).

College students often think about themselves as they expect to be in the future, and their possible selves do not necessarily mirror their actual current selves (Markus & Nurius, 1986). Considering a person's possible selves rather than his or her current self allows for the recognition of more opportunities and is less limiting because possible selves are not necessarily restrained by present reality. Therefore, focusing on future selves can open up more occupational and personal options for an individual (Chalk, 1994).

Interestingly, Ogilvie (1987) found that subjects were more motivated to distance themselves from their feared selves than to strive for their ideal selves. Feared selves are a powerful motivator, but only when positive ideal selves exist (Markus & Ruvolo, 1989). Furthermore, Markus, Cross, and Wurf (1990) found that possible selves are directly related to competence, which is one's actual ability to perform a task and one's self-efficacy with regard to performing that task. In other words, it is just as important for a person to have

confidence in his or her ability to accomplish something as it is to possess the necessary skills.

Possible selves theory is a good framework within which to study occupational choice. Choosing a career necessarily involves creating goals, dreams, aspirations, and situations to avoid, which are the essential elements of expected, ideal, and feared selves. In addition, the theory of possible selves takes into account the influence of gender on one's self-concept. The inclusion of gender makes the theory especially applicable to the field of women's career development, allowing researchers to address questions regarding women's continued restriction of their career choices.

Preliminary Studies

Chalk, Meara, and Day (1994) performed two studies which examined gender differences in possible selves as they related to college students' feelings about occupations that had previously been classified as masculine, feminine, or neutral. In Study 1, women were found to fear both masculine and (to a lesser degree) feminine jobs more than they expected those jobs. Men also feared feminine jobs more than they expected those jobs. Because men and women did not differ in how they rated themselves on a variety of vocational and academic abilities on the Self-Estimates section of the Holland Self-Directed Search, the women's fear of masculine jobs could not be attributed to a belief that they were incapable of performing them.

Only women participated in Study 2, and the results confirmed the findings from the females in Study 1. In addition, subjects idealized masculine jobs more than they expected them. Subjects were asked to select from the list of jobs the one they most feared, the one they most expected, and the one they most idealized, and were then asked to rate several statements on the basis of how much that reason influenced their choice. Analysis focused on the choice of most feared job, and it was found that the most common reasons chosen were (a) not being comfortable with the job, and (b) the job not matching one's abilities.

A third study (Chalk, 1994) supported and extended the previous findings, with an emphasis on feared selves. Subjects who chose a feminine job as their most-feared job frequently focused on others being disappointed and the job being too low-status as the reason for their choice, while those who chose a masculine job emphasized being unable to succeed, too much pressure, and too much competition.

The present study focused on the occupational possible selves of both male and female students. It was expected that, in general, women would restrict their range of possible careers more than men would.

Three hypotheses focused on the occupational possible selves measure: (a) It was hypothesized that women would fear both masculine and feminine jobs more than they expected or idealized them, but that there would not be significant differences between fearing, expecting, and idealizing neutral jobs. (b) It was expected that men would also fear feminine jobs more than they expected or idealized them, but unlike women, they would expect and idealize masculine jobs more than they feared them. No significant differences between fearing, expecting and idealizing neutral jobs were expected for men. (c) It was hypothesized that women would fear masculine jobs more than men would, but that there would be no significant difference between men and women for feminine or neutral jobs.

In addition, occupational self-efficacy and attitudes toward feminism and the women's movement were examined in relation to these possible selves. Two further hypotheses involved the Attitudes Toward Feminism and the Women's Movement Scale (FWM) and the Task-Specific Scale of Occupational Self-Efficacy (TSSOS) as predictors of fear of masculine jobs: (d) It was hypothesized that for women, support of the women's movement (demonstrated by the FWM) would be a predictor of fear of masculine jobs, with less support predicting greater fear. For men no relationship between these variables was expected. (e) It was hypothesized that scores on the quantitative portion of the TSSOS would be a predictor of fear of masculine jobs for both men and women, with low scores predicting greater fear, due to the math and science basis of traditionally masculine occupations.

Method

Participants

Participants were 27 male and 27 female undergraduate students in introductory psychology classes at a private Midwestern university. Their age range was 18 to 21. Participants were recruited to take part in a study on career choice in return for one point of extra credit in an introductory psychology class.

Measures

The Attitudes Toward Feminism and the Women's Movement Scale. This scale is intended to measure affective attitudes toward the feminist movement (Fassinger, 1994). The scale consists of ten items (e.g., "The women's movement has positively influenced relationships between men and women") which are rated on a summated 5-point Likert scale, ranging from "Strongly Agree" to "Strongly Disagree."

Enns (1993) found the test-retest reliability of a modified form of the FWM to be .81. Fassinger (1994) calculated Cronbach's alpha coefficients for the FWM used in the present study as .90 for men, .87 for women, and .89 for the total sample.

The Task-Specific Scale of Occupational Self-Efficacy. This scale is designed to measure occupational self-efficacy in four areas: verbal and interpersonal; quantitative, scientific, and business; physical strength and agility; and aesthetic (Osipow, Temple, & Rooney, 1993). It consists of 60 items based on skill requirements of occupations listed in the *Dictionary of Occupational Titles* (U.S. Employment Service, 1991). The items are rated on a summated 5-point Likert scale, ranging from "No Confidence" to "Absolute Certainty." Test-retest reliability over about two weeks is .92, and alpha coefficients for internal reliability are .94 for the total scale, with all subscales above .90 (Osipow et al.).

The Occupational Possible Selves (OPS) Measure. This scale is intended to assess the occupational dimension of the subject's self-concept through a possible selves framework (Chalk, 1994). In the first part of this two-part measure, a list of 15 occupations is presented three times and participants are asked to rate how much they expect to hold each job (defined as "how likely it is that you will hold each occupation"), how much they fear holding each job (defined as "how hard you would work to avoid each occupation"), and how much they idealize holding each job (defined as "how much you would wish for or aspire to each occupation"). Ratings are on a summated 5-point Likert scale ranging from "not at all" to "extremely." In the second part of the measure, participants are asked to state the occupation from the preceding list that they would most expect, the one they would most idealize, and the one they would most fear. Because the main focus of this part is on the feared occupational self rather than the expected or idealized self, they are then instructed to rate 11 statements, on a scale of 1 to 5, on the contribution of each item to their choice of most-feared job.

Procedure

For the current study, some statements were added or omitted from the original form of the OPS (Chalk, 1994). The following were omitted because the researchers felt they were ineffective or redundant with other items on the measure: "I'm not like the people who currently hold that occupation"; "the job is too prestigious"; "the job requires people who are more competitive than me." The following statements were added because the researchers felt there were issues that

had not been addressed by the original form: "The education or training required for that job is too intensive"; "the occupation offers little opportunity for advancement"; "that job wouldn't allow me to feel that I was helping anyone"; "the occupation does not pay enough."

The list of occupations was generated from government data indicating the representation of females in various jobs (U.S. Bureau of the Census, 1992). Jobs that had less than 30% women were labeled masculine, while those with greater than 70% women were considered to be feminine, and jobs with between 35 and 65% women were labeled neutral. From each category, five jobs were selected that would be almost certain to require a college education, because the participants were drawn from a college population. The five masculine jobs were engineer, architect, lawyer, dentist, and physician. The feminine jobs were elementary school teacher, librarian, registered nurse, speech therapist, and special education teacher. The neutral jobs were public administrator, reporter, psychologist, public relations director, and college professor.

Within each of the possible selves categories (expected, feared, and ideal), feminine, masculine, and

neutral job scores were calculated by summing participants' ratings of the jobs for each job type. For example, a feared feminine job score was obtained by adding together participants' ratings of how much they feared holding the five jobs that had been previously classified as feminine. Based on the 5-point rating scale, the lowest possible score was 5, the highest 25.

Participants were tested in two groups. They were given a packet containing an informed consent form, the OPS, the FWM, and the TSSOS. They were asked to complete everything in that sitting, with the required time estimated to be 30 minutes or less. Each participant was permitted to leave as soon as she or he completed the measures and presented her or his experiment card to be signed.

Results

For the possible selves measure, two within-subjects factors (possible selves category and job gender type) with three levels each were used to compute nine scores for each subject. Means and standard deviations for these scores are in Table 1. The occupational possible selves scores were then entered into a within-

Table 1

Means and Standard Deviations for Job Scores on Occupational Possible Selves Measure

Job Score	Women		Men	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Expected Feminine Jobs	8.038	2.341	7.360	2.956
Feared Feminine Jobs	17.308	4.585	16.640	4.517
Ideal Feminine Jobs	9.269	3.144	8.760	3.218
Expected Masculine Jobs	9.538	3.349	11.400	3.594
Feared Masculine Jobs	16.538	4.002	12.360	4.051
Ideal Masculine Jobs	13.500	4.357	14.480	4.360
Expected Neutral Jobs	13.269	4.350	11.280	4.098
Feared Neutral Jobs	11.923	3.867	12.480	4.593
Ideal Neutral Jobs	15.077	3.929	13.040	4.267

Note. Higher scores indicate a greater degree of expectation, fear or hope for the jobs in each gender category.

subjects repeated measures MANOVA to examine the data for an interaction between possible self category, job gender type, and sex of participant in how they rated the jobs as expected, feared, and ideal. The three-way interaction was significant, $F(4, 46) = 2.86, p < .034$. There was also a significant interaction for possible self category and job gender type, but this was not followed up due to the significant three-way interaction.

As a follow-up to the significant interaction, another within-subjects MANOVA was conducted to look at the impact of possible self category within each level of job gender type for each sex. For women, possible self category was significant for feminine jobs, $F(2, 28) = 38.14, p < .001$, for masculine jobs, $F(2, 28) = 39.97, p < .001$, and for neutral jobs, $F(2, 28) = 9.34$. For men, possible self category was significant for feminine jobs, $F(2, 28) = 38.77, p < .001$, for masculine jobs, $F(2, 28) = 14.30, p < .001$, and for neutral jobs, $F(2, 28) = 7.43, p < .002$.

Subsequently, pairwise comparisons were conducted to compare expected and feared, feared and ideal, and expected and ideal job scores within both feminine and masculine jobs. These comparisons revealed that women feared feminine jobs more than they expected them, $F(1, 26) = 62.06, p < .001$, and more than they idealized them, $F(1, 26) = 36.62, p < .001$, which supports the first hypothesis. It was also found that women feared masculine jobs more than they expected them, $F(1, 25) = 26.95, p < .001$, as predicted. However, women did not fear masculine jobs significantly more than they idealized them, $F(1, 25) = 3.39, p < .060$. Men were found to fear feminine jobs more than they expected them, $F(1, 26) = 67.77, p < .001$, and more than they idealized them, $F(1, 26) = 45.63, p < .001$, which supports predictions. These results are shown in Table 2.

A between-subjects MANOVA was conducted to examine differences between men and women on feared jobs by job gender type. There was a significant difference between men and women, $F(3, 50) = 5.20, p < .003$, for feared jobs. Univariate analysis within each gender type revealed that women feared masculine jobs significantly more than men did, $F(1, 52) = 13.72, p < .001$, as predicted. No significant difference between women and men had been predicted for feminine or neutral jobs, and this was supported by the analysis.

A backward elimination regression was performed to test the predictive strength for feared masculine job scores of the FWM scale, the four subscales of the TSSOS, and the gender of participants. Only gender of participant was found to predict a significant amount of the variance, with a total adjusted R-square of .1936, $F(1, 52) = 13.72, p < .001$; no other variable added

Table 2

Analysis of Variance Pairwise Comparisons Within Each Sex for Job Scores on Occupational Possible Selves Measure

	<i>df</i>	<i>F</i>
Feminine Jobs		
Women		
Fear vs. Expect	(1,26)	62.06*
Expect vs. Ideal	(1,26)	12.69*
Fear vs. Ideal	(1,26)	36.62*
Men		
Fear vs. Expect	(1,26)	67.77*
Expect vs. Ideal	(1,26)	16.07*
Fear vs. Ideal	(1,26)	45.63*
Masculine Jobs		
Women		
Fear vs. Expect	(1,25)	26.95*
Expect vs. Ideal	(1,25)	45.75*
Fear vs. Ideal	(1,25)	3.89
Men		
Fear vs. Expect	(1,24)	.56
Expect vs. Ideal	(1,24)	29.98*
Fear vs. Ideal	(1,24)	2.33

* $p < .01$.

predictive power to the equation. These results are shown in Table 3.

Discussion

The general hypothesis that women would restrict their occupational options more than men was supported by women's significantly greater fear of masculine jobs. Clearly many women dismiss both masculine and feminine occupations, while men tend to reject only feminine occupations as possibilities.

One interesting finding that did not confirm the hypotheses was that although women were found to fear masculine jobs significantly more than they expected them, they did not fear them significantly more than they idealized them. One way to interpret this would be that women fail to expect these jobs not because they are uninterested in them, but because they do not feel capable of them at some fundamental level. However, the fact that the quantitative subscale of the TSSOS did not predict fearing masculine jobs indicates

Table 3

Summary of Regression Analysis for Feared Masculine Jobs

Variable	Multiple R	Adjusted R ²	F Change
Sex	.4569	.1936	13.721*
Attitudes Toward Feminism and the Women's Movement Scale	.4766	.1969	1.213
Task Specific Scale of Occupational Self-Efficacy			
Interpersonal Subscale	.5023	.2075	1.683
Quantitative Subscale	.5167	.2072	.981
Physical Subscale	.5228	.1977	.419
Aesthetic Subscale	.5236	.1815	.052

* $p < .01$.

that it is not simply the skills required for the job which intimidate women. Perhaps there is some subtle stigma that these occupations acquire through years of socialization that is too elusive to be detected by such a direct measure.

Studies done in a university setting with a sample from a rather homogeneous population of undergraduate students always provoke the question of generalizability to a larger, more diverse population. However, in this case the limited nature of the sample actually renders the results even more salient, because the university at which the study was conducted is a competitive, highly prestigious school full of men and women who are on average more academically achieving and are given more opportunities than their peers in a more diverse national sample. It makes intuitive sense that if there were a sample of young women who would be confident in their abilities to succeed in nontraditional occupations, it would come from a population such as this. However, the results have dramatically shown that even these women, who have had more opportunities and more encouragement than most, deny themselves access to traditionally masculine jobs.

Future research should focus on trying to isolate factors that contribute to this now-established phenomenon of women's fear of nontraditional occupations. One area that merits further exploration is the domain of home-career conflict. Many women may feel the need to pursue careers that will make it possible for them to simultaneously raise a family, and the intensity and high degree of commitment necessary

for jobs such as "physician" and "lawyer" pose many problems in this area. The fact is that society still expects women, rather than men, to sacrifice their careers when it comes to raising children. Unfortunately, because of gender-based wage discrimination and occupational gender-segregation, for many families it makes more economic sense for the woman to make the sacrifice.

Obviously, women's fear of masculine jobs is a highly complex issue in which many factors interact. It is hoped that further research in this area will produce a better understanding of the contributing variables, which can then lead to an expansion of the viable possibilities for women and greater occupational equality between men and women.

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OCCUPATIONAL POSSIBLE SELVES

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