Motivational Attributes of Occupational Possible Selves for Low-Income Rural Women

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To explore the influence of theorized motivational properties of possible selves on participants' perceived likelihood of achieving their most hoped-for self and avoiding their most feared self, the authors surveyed 198 low-income rural women attending either adult basic education classes (DHS, $n = 95$) or community college developmental classes (DEV, $n = 103$), who provided demographic information and completed questionnaires about occupational possible selves and personal efficacy. Affect, knowing someone in a hoped-for occupation, self-initiated actions, and personal efficacy each accounted for significant variance in predicting the participants' perceptions of achieving their most hoped-for self. None of the variables was predictive of participants' perceptions of avoiding their most feared self. Information about this population, implications for research, and career counseling are discussed.

The purpose of this study was to test the applicability of theoretically proposed motivational properties of possible selves (Markus & Nurius, 1986) to the occupational hopes and fears of a special population: low-income rural women. Specifically we wanted to assess the influence of these motivational constructs on participants' perceptions of the likelihood of achieving their most hoped-for occupational self and avoiding their most feared occupational self.

As Cross and Markus (1991) noted, possible selves "have been defined as personalized representations of one's self in future states" (p. 230). These representations are not only cognitive but contain affect and include expectations, hopes, and fears of what one will become in various life domains (e. g., family, work, health) and are thought to have motivational properties so that people work to achieve what they expect and hope for and work to avoid what they fear. Markus, Cross, and Wurf (1990) maintain that possible selves can be viewed as "carriers of competence without which one's abilities cannot be effectively utilized" (p. 225).

Possible selves can be used in career counseling to help clients focus on the future as they envision it in very concrete terms although some self-knowledge and imagination are required to formulate and articulate them. Their use as a counseling or other career intervention tool therefore may be more appropriate for some populations than for others. Although the exploratory work of Markus and Nurius (1986) used college student samples, later work has demonstrated that a possible selves paradigm can be used successfully with other populations. For example, Hooker, Fiese, Jenkins, Morfei, and Schwagler (1996) studied young adult parents (age range = 18–43 years, $M = 30.8$); Day, Borkowski, Punzo, and Howsepian (1994) worked with young Mexican American children (3rd, 4th, and 5th graders) and found that they could envision both proximal (being a good student) and distal (becoming a doctor) possible selves and benefit from an intervention designed to enable them to understand the steps needed to achieve their distal goals. Cross and Markus (1991) demonstrated the existence of and changes in possible selves across the lifespan. Their samples included individuals over 60 years of age; however, we know of no work to date that focuses on the occupational possible selves of low-income rural women.

Several motivational properties or attributes of possible selves have been proposed, and some of these have been tested in prior work. Researchers (e.g., Markus & Nurius, 1986; Ruvolo & Markus, 1992) have maintained that the more concrete the possible selves are, the more potent they are in motivating one to engage in actions to realize them. The motivational properties of concreteness were evidenced in the results of the interventions (student lesson plans) of Day et al. (1994). Among the eight lessons provided was one that had participants experience concrete occupational role models (physician, judge, and airline pilot). Those in these intervention conditions expressed a greater interest in these jobs (i.e., they hoped for or expected them more) than those in the control condition. In a series of three studies exploring the relationship between possible selves and performance (as measured by persistence or effort on specific cognitive tasks), Ruvolo and Markus (1992) found, "The best performance was consistently observed among those subjects who imagined specific, self-relevant possibilities that occurred as a consequence of one's own efforts" (p. 119).

Affect is also believed to be a motivating property of possible selves. In other words, cognitively envisioned outcomes carry affect; the degree of affect is determined by how emotionally invested one is in realizing a hoped-for state or avoiding a feared one (Markus & Ruvolo, 1989; Ruvolo & Markus, 1992). In their review of literature about the influence of both positive and negative affect on performance, Markus and Ruvolo (1989) make a convincing case for the potential motivating properties of affect and its attachment to possible selves. Usually, the more significant the goal, the more affect there is associated with it. For example, Frazier, Hooker, Johnson, and Kraus (2000) found, not surprisingly, that personal health issues (such as fear of illness or mental incapacitation) increase in importance with age and become increasingly identified as possible selves. In an earlier work, Hooker (1999) stated, "This growth in salience of health-related selves has importance because of its implications for how people think and plan for their future" (p. 107). To determine the salience of future selves to the current affective and motivational states of individuals, Markus and Nurius (1986) asked 210 college students about future possibilities for themselves and also asked them to respond to questionnaires related to affect, self-esteem, sense of control, and hopelessness. Results indicated that "probable" (i.e., expected or likely) possible selves were significantly correlated with positive affect, locus of control, and self-esteem, but not negative affect.

A balance between hoped-for (or expected) and feared possible selves is said to increase the motivation to achieve desired selves and to avoid undesired ones. Oyserman and Markus (1990) suggested "that a given possible self [for example, an expected or a hoped-for self] will have maximal motivational effectiveness when it is offset or balanced by a countervailing possible self (a feared self) in the same domain" (p. 146). To explore this point, they asked 238 participants between the ages of 13 and 16 years who were in one of four groups that varied in degree of juvenile delinquency to describe their possible selves. Their results indicated that in comparison with delinquent youth, nondelinquent youth displayed more balance between expected and feared selves (i.e., they had a larger number of pairs of possible selves when feared selves were matched with expected selves in the domains they studied). In a series of studies related to group identity and school persistence, Oyserman, Gant, and Ager (1995), while assessing the balance between expected and feared selves, found in one study with African American middle school students that balance in the domain of achievement-related possible selves (determined by the number selves they expected to become paired with the countervailing selves that they were trying to avoid becoming) predicted school achievement, particularly for the boys. In a different study with college students, they found that for Whites, balance in achievement-oriented possible selves (measured in the same way) predicted the expression of more achievement strategies.

Markus and Ruvolo (1989) maintained that possible selves help one organize and focus on future-oriented activities. Some of the motivational properties of possible selves come not only from goals that can be visualized, but also from the plans or steps (Day et al., 1994) that can be articulated and self-initiated actions or behaviors that can be enacted to realize positive states or avoid negative ones.

The work of Markus and Nurius (1986) and Ruvolo and Markus (1992) indicates that issues of personal efficacy or confidence in achieving one's possible selves and belief with respect to control over future states may interact with the motivational properties of possible selves and the behaviors one engages in to realize them. Cross and Markus (1991) found that their older participants were more active in engaging in behaviors to achieve their hoped-for selves and to avoid their feared selves than college students were. The older participants, however, reported less confidence in being able to achieve the desired end states or to avoid the undesired ones than the younger participants. In further analyzing these findings, Cross and Markus (1991) determined that the possible selves (e.g., "I hope for excellent health" or "I fear being widowed") that were articulated by the older participants were less under their control than the possible selves (e.g., "I hope for a good job" or "I fear a low grade point average") expressed by the students.

On the basis of this prior theorizing and empirical work, we set out to investigate how these motivational properties (concreteness, affect, balance, self-initiated actions, and personal efficacy) would influence the perceptions of low-income rural women about the likelihood of their achieving their most hoped-for (and avoiding their most feared) occupational selves. Specifically we hypothesized that each of these five variables would contribute significantly to the variance in the prediction of the participants' perceptions of achieving their most hoped-for self and avoiding their most feared self. Because the samples were drawn from two different sources, that is, the Department of Human Services (DHS group) and developmental education classes (DEV group; see Method section), we further hypothesized that the DEV group would score higher on each of the predictor variables as well as the criterion variable for each regression. Finally, because, as noted above, some self-knowledge and imagination are needed to articulate possible selves, we predicted that the DEV group, which had had more education, would generate both more hoped-for and feared selves.

Method

Participants

From a volunteer sample of 204 women, 198 low-income individuals were recruited from education classes in eight rural east Tennessee counties. Ninety-five women were in adult basic education classes offered by the State Department of Human Services (DHS group), and 103 women were enrolled in community college developmental classes (DEV group) serving the same eight-county area. The women in the DHS group received public assistance and were required to enroll in an educational program (i.e., adult basic education classes), whereas the women in the DEV group were voluntarily attending developmental classes at branches of a local community college. Developmental classes are for students who have a high school education or equivalent yet lack the skills necessary to perform well in regular college courses. Developmental courses are offered in English, reading, and mathematics; they carry no college credit and may be repeated.

Women in both groups reported incomes within the range defined as *low income* by the U.S. Department of Labor. However, the incomes in the DEV group ($M = \$13,929$) were significantly higher than those of the women in the DHS group ($M = \$4,794$), $t(196) = 11.70$, $p < .001$. Although the women in both groups ranged in age from 18 to approximately 50 years old, the average age of the women in the DEV group (25.1

years) was significantly younger than the average age of the women in the DHS group (31.1 years), $t(196) = -4.44$, $p < .001$.

As expected, significantly more women in the DEV classes had graduated from high school ($n = 94$) than had those in the DHS classes ($n = 29$), $\chi^2(1, N = 198) = 77.47$, $p < .001$. Both groups were comparable in ethnic composition. Two Native Americans, 7 Black/African Americans, 85 White/Caucasians, and 1 Latina comprised the DHS group. There were 11 Black/African Americans, 89 White/Caucasians, and 3 Latinas in the DEV group. The majority of women in both groups had held a job at least 1 year, and many had worked more than 5 years. Only 9 women had never worked outside the home.

Procedures

The study was conducted with students in the eight counties' adult basic education classes (DHS) and English developmental classes (DEV) at the community college campuses over a 6-week period. With permission of the instructors, the principal investigator described the study and asked the women attending the various classes to participate in it. The informed consent form was distributed and read aloud. Each participant was to receive $5. Everyone who was asked agreed to participate and responded to each instrument, although there were some participants who left some items blank. Completion of the instruments took 45 to 60 min.

All volunteers ($N = 204$) were given a packet containing three instruments: a demographic questionnaire and the Possible Selves Questionnaire (PSQ; Markus, 1987) with follow-up questions and the Personal Efficacy subscale (PE) of the Spheres of Control Scale (Paulhus & Christie, 1981). Because instructions were presented orally as well as in written form, the order of the instruments was the same for all participants. At the end of each data collection session, the principal investigator paid the women, answered questions, and had conversations with many of them. Data from 6 women in the developmental classes were eliminated from the data analysis, 3 because they were on public assistance and the other 3 because their incomes exceeded the poverty level.

Instruments

Both closed- and open-ended PSQs have been developed and used with populations of varying ages (6–64 years) and educational levels (elementary to college). The open-ended version of the PSQ developed by Markus (1987) was used in this study to measure participants' self-knowledge about their occupational hopes and fears. Because we were interested only in the career domain, the instructions only asked participants to list six of their hoped-for and six of their feared occupational possible selves. Studies have asked respondents to list from three (Hooker, 1999; Oyserman & Markus, 1990) to "all the hoped-for (or feared) possible selves that you currently imagine for yourself " (Cross & Markus, 1991, p. 235). Similar to Cross and Markus (1991) and Hooker (1999), we asked for participants' hoped-for possible selves and their feared possible selves and did not ask for "expected possible selves." Specific instructions for the PSQ are available upon request.

After each hoped-for or feared possible occupation that they listed, participants were asked (a) to rate how likely that job was for them, (b) to assess how much they hoped-for (or feared) the job, (c) to indicate whether they personally knew anyone in the job, and (d) to evaluate how well they knew that person. Likert-type rating scales similar to those of Cross and Markus (1994) and Hooker (1999) were adapted and added to the PSQ. To rate the likelihood of obtaining or avoiding each occupational possible self, we used a 7-point Likert-type scale (1 = *very unlikely*; 7 = *very likely*). Cross and Markus (1991) and Hooker (1999) also used a 7-point scale ranging from 1 (*not at all likely*) to 7 (*completely likely*). As a measure of affective salience or intensity, a 4-point Likert-type rating scale adapted from Knox (1997) was used to access how much the women hoped for (or feared) the kind of work associated with each occupational possible self. A

value of 1 was assigned to a rating of *barely hoped for* or *barely feared* and a value of 4 to *very much hoped for* or *very much feared*. As a measure of concreteness, another 4-point Likert-type scale with anchors of *barely* and *very well* was used to obtain a rating of how well they knew a person in each hoped-for and each feared occupational possible self. It is assumed that the better one knows someone in a specific occupation, the more knowledgeable the individual would be about what the job requires and steps needed to achieve it or avoid it.

In addressing the reliability of the PSQ, Markus (1987) states that after 3 weeks, 90% of respondents ($n = 63$) were able to generate and identify two of the three expected possible selves they had identified earlier, and 45% generated all three of the earlier responses of expected possible selves. As to feared selves, 74% generated two of the three feared-selves responses generated earlier, and 25% generated all three of the previous feared-selves responses. Hooker (1999) indicated that various studies have shown that possible selves tend to be fairly stable over time periods that range from 6 months to 5 years.

Hooker (1999) also reviewed three studies that she conducted with her colleagues exploring the validity of the open-ended PSQ with participants who ranged in age across the life span (young adults, middle aged, and over 60 years). She noted that for the most part possible selves related to the age-appropriate developmental tasks identified by Havighurst (1972). Hooker (1999) did suggest, however, that older adults' goals "are the most likely to be motivated by their own personal agendas" (p. 111) and therefore do not correspond as closely to normative developmental tasks.

After completing the PSQ, participants were then instructed to review all their listed possible selves and to identify (a) their most hoped-for occupational possible self and (b) their most feared occupational possible self. They were then asked to describe what they were doing to achieve their most hoped-for and avoid their most feared occupational self. These statements were categorized as to being self-initiated (internal) or other-initiated (external) behaviors. Two educators with master of science degrees who were unfamiliar with the study independently did this categorization. Examples of responses judged to be self-initiated were "I'm taking classes" or "I'm choosing my courses wisely," whereas "I just want it" or "I'm just hoping it won't happen" are types of responses judged to be other-initiated or external behaviors. Interrater agreement exceeded 98%. There were two responses on which the coders initially disagreed; discussion between the judges resulted in agreement about both of them.

The procedure used in other studies (Cross & Markus, 1991; Oyserman & Markus, 1990) was followed in determining the balance score. Positive possible selves were paired with negative possible selves in the same domain. In this study all possible selves are in the occupational domain; therefore, a hoped-for possible self listed by a participant was matched with a listed, feared possible self and was scored as 1 point. For example, if a participant listed two hoped-for and two feared occupational possible selves, she received a balance score of 2. Likewise, if a participant listed three hoped-for and two feared occupational possible selves, she also received a balance score of 2. Because not all participants identified six hoped-for or six feared selves (in fact, some did not list any feared selves), balance scores ranged from 0 to 6.

The PE, one of three subscales on the Spheres of Control (SOC) battery by Paulhus and Christie (1981; Lefcourt, 1991), was used to assess perceptions relevant to goal achievement and personal control. A 7-point Likert-type scale (1 = *disagree*; 7 = *agree*) was used for all 10 items. Four items (e.g., "I usually don't make plans because I have a hard time following through on them") were reverse scored. Scores for the 10 items were recorded for each participant to establish an individual mean subscale score that was then used in the statistical analyses. Lefcourt (1991) reported a test–retest reliability above .90 for college students after 4 weeks and an alpha reliability coefficient of .75 for this subscale. Other researchers criticize the PE for its low internal consistency (Spittal, Siegert, McClure, & Walkey, 2002). Palenzuela (1987) provided empirical support for the idea that the PE is measuring two constructs, self-efficacy and perceived

contingency, rather than only one. In a summary of 12 studies using the SOC, Paulhus and Van Selst (1990) concluded that the median alpha coefficient for the PE is .59; they subsequently revised the PE to improve its internal consistency but provided no information about the stability (i.e., test–retest reliability) of the scores on the new subscale, Personal Control (PC). Spittal et al. (2002) found support for the three-factor structure of the original SOC battery but not for the newer version, the SOC–3. In our study the overall alpha coefficient for the PE of the SOC was .47 ($n = 191$); for the DEV group the alpha coefficient was .51 ($n = 101$); for the DHS group it was .36 ($n = 90$).

Prior to testing our hypotheses about the five variables predicting participants' perceived likelihood of achieving their most hoped-for or avoiding their most feared occupational possible self, we examined the data. As found in other studies (e.g., Cross & Markus, 1991), the number of feared selves generated by the participants was much less than the number of hoped-for selves. If a woman did not list a feared self, this led to missing values or scores of 0 for the questions or variables that followed the request to list up to six feared selves. Additionally, some women failed to answer all the items. Therefore, for 3 women who indicated that they did know someone in their most feared occupation but who left blank how well they knew the person, we decided to use the expectation maximization option in SPSS to give them a score for the later variable. However, extrapolating from the power table provided by Wampold and Freund (1987), we had more than enough participants' scores for each of the five variables to have power of .90 and an expected medium squared multiple correlation coefficient (R^2).

Results

Twelve analyses, 10 one-way analyses of variance (ANOVAs), and 2 chi-square tests were performed to determine if, as hypothesized, the women in the DEV group would score higher than the women in the DHS group on the variables used in the regression analyses and on the number of hoped-for and feared occupational possible selves generated. In all 12 statistical procedures, the independent variable was group (DEV or DHS). The dependent variables are identified in Tables 1 and 2. Because there were so many ANOVAs, the Bonferroni adjustment was made and the level of significance was set at .005.

The number of hoped-for selves generated by each woman is the dependent variable in the first ANOVA and the first entry in Tables 1 and 2. There was not a significant difference between the two groups, $F(1, 196) = 0.491$, $p = .484$. The F values resulting from the six one-way ANOVAs with the dependent variables being (a) feared possible selves, (b) balance, (c) affective salience or importance associated with avoiding the most feared self, (d) rating of the likelihood of avoiding the most feared possible self, (e) rating of how well one knows someone working in the most hoped-for occupational possible self, and (f) rating of how well one knows someone whose job is in the most feared possible self also were not significant between the DEV and DHS groups.

When the dependent variables in the ANOVAs were (a) affective salience (measured by a rating of how much they hoped to achieve their most hoped-for possible self), (b) ratings of the likelihood of their achieving their most hoped-for self, and (c) ratings of their personal efficacy, the differences between the two groups were significant. The effect size as reflected in the partial eta squared values for all three of the significant ANOVAs was very small (below .10).

Answers to the questions (a) "What are you doing to help yourself achieve your most hoped-for job?" and (b) "What are you doing to help yourself avoid your most feared job?" were categorized as self-initiated actions or as actions that are external to self. Of the 95 DEV participants who described their actions, 100% reported being engaged in self-initiated actions to achieve their most hoped-for self in comparison to 69% of the 87 DHS women who identified something they were doing. This difference was significant, $\chi^2(1, N = 182) = 34.62$, $p < .001$, $\eta^2 = .19$. In regard to actions taken to avoid the most feared job, more women in the DEV group were taking self-initiated actions than were women in the DHS group, $\chi^2(1, N = 158) = 30.64$, $p < .001$, $\eta^2 = .19$. A majority (80%) of the DEV women identified such an action, whereas only 33% of the DHS women did so.

Five of the 12 hypothesized differences between the DEV and DHS groups were statistically significant and in the predicted

Table 1

Analysis of Variance Summary Table for DEV and DHS Women on Nine Possible Selves Variables and Personal Efficacy

Dependent variable	Group MS	df	Error MS	df	F	Partial η^2
Hoped-for selves	1.41	1	2.87	196	0.49	.002
Feared selves	1.60	1	2.31	179	0.69	.004
Balance	0.27	1	2.48	196	0.11	.001
Hoped-for affect	2.94	1	0.26	196	11.20*	.054
Feared affect	0.08	1	0.92	179	0.09	.001
Hoped-for likelihood[a]	31.03	1	1.48	195	20.99*	.097
Feared likelihood[b]	6.74	1	3.62	179	1.86	.010
Know hoped-for rating[c]	0.06	1	0.81	134	0.08	.001
Know feared rating[d]	0.25	1	0.55	157	0.44	.003
Personal efficacy	6.74	1	0.40	189	16.85*	.082

Note. DEV = group of low-income women taking community college developmental courses; DHS = group of low-income women taking adult basic education classes offered by Tennessee's State Department of Human Services.
[a] Rating of likelihood of achieving the most hoped-for occupational self. [b] Rating of likelihood of avoiding the most feared occupational self. [c] Rating of how well participant knows someone in the most hoped-for occupation. [d] Rating of how well participant knows someone in the most feared occupation.
* $p < .005$.

Table 2
Means and Standard Deviations for Hoped-for Selves Variables, Feared Selves Variables, and Personal Efficacy Subscale

Variable	Mean			Standard deviation			Sample size		
	Total	DEV	DHS	Total	DEV	DHS	Total	DEV	DHS
Hoped-for selves	3.59	3.50	3.67	1.69	1.59	1.80	198	103	95
Feared selves	2.70	2.62	2.80	1.52	1.43	1.63	181	99	82
Balance	2.33	2.37	2.29	1.57	1.45	1.70	198	103	95
Hoped-for affect*	3.74	3.85	3.61	0.53	0.43	0.59	198	103	95
Feared affect	3.11	3.09	3.13	0.95	1.01	0.89	181	99	82
Hoped-for likelihood*	5.77	6.15	5.35	1.28	0.76	1.57	197	103	94
Feared likelihood	3.15	2.97	3.36	1.91	1.87	1.95	181	99	82
Know hoped rating[a]	3.24	3.21	3.26	0.90	0.88	0.91	136	70	66
Know feared rating[a]	3.52	3.56	3.48	0.74	0.72	0.77	159	88	71
Personal efficacy*	5.13	5.30	4.93	0.66	0.62	0.65	191	101	90

Note. DEV = group of low-income women taking community college developmental courses; DHS = group of low-income women taking adult basic education classes offered by Tennessee's State Department of Human Services.
[a] Rating of how well participant knows someone in the most hoped-for or most feared occupation.
* Significant difference between the two groups, $p < .005$.

direction. However, because the effect sizes related to the differences were low to low-medium, it was decided to combine the two groups of low-income women in the regression analyses.

We hypothesized that five specific motivational variables would significantly contribute to the prediction of low-income women's perceptions of their achieving their most hoped-for occupational self or avoiding their most feared occupational possible self. Two hierarchical regression analyses were used to determine how much variance three possible selves variables added to (a) actions toward achieving the most hoped-for self or avoiding of the most feared self and (b) perceptions of personal efficacy in predicting the likelihood of achieving (the most hoped-for) or avoiding (the most feared) occupational possible self.

The first step in the hoped-for hierarchical regression was to enter the types of actions (self-initiated or external) taken or planned to achieve the most hoped-for occupation. In the second step, the PE scores were added to the types of actions. Finally, in the third step to determine how much the three hoped-for possible selves variables added to the predicted likelihood of achieving the most hoped-for possible self, the three variables were entered as a group and thus added to the two variables previously entered. The three specific possible self variables were (a) affective salience or importance of achieving the most hoped-for occupational possible self, (b) the balance between their hoped-for and feared possible selves, and (c) concreteness as measured by how well acquainted the women were with someone who has worked in their most hoped-for occupation.

To determine the amount of variance accounted for in predicting the perceptions of the likelihood of avoiding the most feared possible self (a dichotomous variable), we first entered internal or external actions undertaken or planned to avoid the most feared occupational self; after that, we entered the PE mean scores. Then, similar to the prior regression, affective salience ratings of avoiding the most feared occupational possible self, balance scores, and ratings of how well someone was known in the most feared

occupation (concreteness) were entered as a group into the hierarchical regression.

Both the types of actions taken and the participants' perceptions of self-efficacy contributed significantly to the prediction of perceptions of the likelihood of achieving the most hoped-for occupational possible self. Two of the three hoped-for possible selves variables, the rating of how well someone in the occupation was known to the participant (concreteness) and the rating of the importance or salience of achieving the occupational goal (affect), contributed a significant additional amount of variance ($\Delta R^2 = .23$). The overall regression indicated that a significant amount of variance could be accounted for by four of the five variables in predicting participants' perceived likelihood of achieving their most hoped-for self, $F(5, 130) = 17.05$, $p < .001$. (See Table 3.)

The total number of participants whose data were entered in the regression procedure was 136. Almost one third ($n = 62$) of the participants indicated that they did not know anyone in their most hoped-for occupation, and therefore they could not rate how well they knew someone in the occupation. An independent samples t test was conducted to determine if there was a difference in participants' perceived likelihood of achieving their most hoped-for possible self for those who knew someone in the occupation and those who did not. The t value was not significant as the groups had average scores of 5.8 and 5.7, respectively.

Contrary to expectations, the hierarchical regression analysis conducted to predict participants' perceptions of the likelihood of avoiding their most feared self was not significant, $F(5, 154) = 0.935$, $p = .460$. (See Table 4.)

Because the results of the two regression analyses were so different, comparisons between the hoped-for and feared possible selves variables seemed appropriate. Four repeated measures ANOVAs were completed. The within-subjects variables were the occupational possible selves, hoped-for and feared, and the between-subjects variable was group, DEV or DHS. The Bonferroni adjustment was used to control for an inflated alpha. The difference between the number of hoped-for and feared possible

Table 3

Summary of Hierarchical Regression Analysis for Predicting Likelihood of Achieving the Most Hoped-For Self for All Participants (N = 136)

Variable	B	SEB	β	p	R^2	ΔR^2	ΔF
Step 1							
H. actions	.662	.174	.312	.000	.098	.098	14.49**
Step 2							
H. actions	.590	.170	.278	.001			
Efficacy	.508	.159	.256	.002			
					.162	.064	10.17*
Step 3							
H. actions	.341	.152	.161	.026			
Efficacy	.387	.140	.195	.006			
H. affect	.763	.176	.315	.000	.267	.105	18.97[a]**
Balance	−.024	.056	.030	.662	.267	.000	0.04[b]
H. Know	.548	.104	.363	.000	.396	.129	27.73[c]**
					.396	.234	16.81**

Note. H. actions = internal versus external actions to achieve most hoped-for occupational self; Efficacy = Personal Efficacy subscale scores; H. affect = affective salience for most hoped-for occupational self; Balance = balance between hoped-for and feared occupational selves; H. know = rating of how well person is known in most hoped-for occupation. Step 1, $df = 1, 134$; Step 2, $df = 1, 133$; Step 3, $df = 3, 130$.
[a] $df = 1, 132$.   [b] $df = 1, 131$.   [c] $df = 1, 130$.
* $p < .01$.   ** $p < .001$.

selves was significant, $F(1, 179) = 78.19$, $p < .001$, such that participants listed significantly more hoped-for occupational selves than feared occupational selves. For affective salience, the hoped-for affect was significantly higher, $F(1, 179) = 63.47$, $p < .001$, than the feared affect. Ratings on the likelihood of achieving the most hoped-for self were significantly higher than those for avoiding the most feared self, $F(1, 178) = 246.63$, $p < .001$. For these significant results, effect sizes, or partial eta squared, ranged from .26 to .58. There was not a significant difference between ratings of how well participants knew someone in the most hoped-for occupation and the most feared occupation, $F(1, 106) = 5.41$, $p = .022$.

The intercorrelations among all the variables were also examined. Because balance is dependent on the number of hoped-for selves and feared selves that counterbalance each other, the strongest correlations were between feared selves and balance, hoped-for selves and balance, and the number of hoped-for selves and the number of feared selves. (See Table 5.)

Discussion

The results of the study indicate that personal efficacy, self-initiated actions and two of the three possible selves variables added significantly to the variance accounted for in predicting the

Table 4

Summary of Hierarchical Regression Analysis for Predicting Likelihood of Avoiding the Most Feared Self for All Participants (N = 159)

Variable	B	SEB	β	p	R^2	ΔR^2	ΔF
Step 1							
F. actions	−.230	.222	−.082	.301	.007	.007	1.08
Step 2							
F. actions	−.219	.228	−.078	.338			
Efficacy	−.055	.247	−.018	.822			
					.007	.000	.05
Step 3							
F. actions	−.247	.230	−.088	.284			
Efficacy	−.096	.249	−.032	.701			
F. affect	−.303	.167	−.148	.072	.025	.018	2.89
Balance	−.009	.109	−.007	.928	.025	.000	.05
F. know	.175	.220	.066	.427	.029	.004	.64
					.029	.022	1.18

Note. F. actions = internal versus external actions to avoid most feared occupational self; Efficacy = Personal Efficacy subscale scores; F. affect = affective salience for most feared occupational self; Balance = balance between hoped-for and feared occupational selves; F. know = rating of how well person is known in most feared occupation. Step 1, $df = 1, 158$; Step 2, $df = 1, 157$; Step 3, $df = 3, 154$.

Table 5
Intercorrelations Among Hoped-For (H) Selves Variables, Feared (F.) Selves Variables, and Personal Efficacy Subscale

Variable	1	2	3	4	5	6	7	8	9	10	11	Efficacy
1. H. selves	—	−.02	−.02	.02	.09	.66**	.51**	.27**	.05	.16	−.10	−.02
2. H. affect		—	.41**	.10	.18*	−.06	−.08	.07	.02	.22*	.19	.20*
3. H. likelihood			—	.41**	.25**	−.01	−.07	.03	−.01	.14	.07	.29**
4. H. know				—	.12	.05	.01	.06	−.03	.03	.01	.00
5. H. actions					—	.04	.01	.06	−.09	.33**	.27**	.13
6. Balance						—	.94**	.36**	−.06	.23**	−.14	−.03
7. F. selves							—	.12	−.08	−.02	−.16	−.09
8. F. affect								—	−.13	.36	.21*	.08
9. F. likelihood									—	−.08	.02	−.03
10. F. actions										—	.14	.23
11. F. know											—	.08

Note. H. (or F.) affect = affective salience for most hoped-for (or most feared) occupational self; H. (or F.) know = rating of how well person is known in most hoped-for (or most feared) occupation; H. (or F.) actions = internal versus external actions to achieve most hoped-for (or most feared) occupational self; Balance = balance between hoped-for and feared occupational selves; Efficacy = Personal Efficacy subscale scores.
* $p < .01$.   ** $p < .001$.

self-reported likelihood of achieving one's most hoped-for self. As can be seen from Table 3, how well participants knew someone in their most hoped-for occupation contributed a change in the variance of almost 13%, and affect contributed over 10%. Together, the four variables account for almost 40% of the variance in the prediction equation. Contrary to expectations, however, balance contributed no significant variance to the criterion. Additionally, none of the five predictors (personal efficacy, actions taken to avoid one's most feared self, affect associated with one's most feared self, balance, or how well participants knew someone in their most feared occupation) was significant in predicting participants' likelihood of avoiding their most feared self.

Also contrary to expectations, the differences between the two groups of women were minimal, thus justifying combining them for the regression analyses. There were no differences between the groups on the numbers of hoped-for or feared selves that were generated, on how well they knew someone in their most hoped-for occupation, and on four of the five variables related to avoiding their most feared self. The one exception to the last is that the DEV group reported taking significantly more self-initiated actions to avoid their most feared self. To be sure, there were a few differences as predicted with respect to the most hoped-for self (i.e., the DEV group scored significantly higher than the DHS group on self-initiated actions, personal efficacy, affect, and the likelihood of achieving their most hoped-for self). The very small effect sizes associated with these differences, however, suggest that very small differences between the women in the DEV and DHS groups were not necessarily of practical significance or meaningful. For example, although the DEV group (See Method section) was younger and better educated and had a higher income, there was little to choose between the groups with respect to occupational assistance via possible selves strategies. Both had significant work histories outside the home, both could envision possible selves and speculate about them, and both had occupational hopes. In addition, the income differential between the two groups might not be as great as the numbers indicate, as members of the DHS group could be eligible for additional assistance such as food stamps or housing allowances that members of the DEV group would have to purchase from their stated income.

Of the differences between the two groups, the one that seems of most practical significance for career counseling is that having to do with self-initiated actions toward achieving one's most hoped for self or avoiding one's most feared self. The importance of planful steps is well known in career advising and counseling and has been shown to be facilitative in prior research with possible selves (e.g., Day et al., 1994). It seems clear that the DEV group was ahead in this category, as they were voluntarily attending classes, whereas the DHS group had to attend as a condition of their receiving public assistance, and significantly more of the DEV participants in comparison with the DHS participants were doing something to achieve their most hoped-for self or avoid their most feared self. As a practical matter, counselors using possible selves in their interventions need to be cognizant of how advanced a client is with possible selves thinking (e.g., degree of concreteness, intensity of affect, etc.) in developing strategies for occupational assistance. For example, if a client does not know anyone in a desired occupation, opportunities for meeting individuals in that occupation or learning about it (such as role-playing experiences like those designed by Day et al., 1994) could be arranged, so that particular hoped-for selves become more concrete. Bandura (1997) notes how modeling (i.e., seeing someone that one perceives to be like oneself accomplish a certain task or goal) increases self-efficacy. Framing career interventions in the language of possible selves might be used to complement research and interventions that are built on increasing self-efficacy (e.g., Betz & Hackett, 1986), as well as research and interventions aimed at determining clients' or students' interest in certain occupations, how strongly they feel about their aspirations, or the depths of their interests or preferences.

As we noted above and as can be found in other research (e.g., Cross & Markus, 1991) both groups in this sample recorded significantly more hoped-for selves than feared selves. In fact, 17 participants reported no feared self, most of them in the DHS group. In conversations that the participants had with the principal investigator after data collection, it became clear that this result was not an oversight as many of these women made statements such as, "I can't think of anything I fear." One reason feared selves in comparison to hoped-for selves might have had less salience for

these low-income women is that many may have been living in extremely negative occupational situations. They have experienced low-level jobs and although they hoped for better, they knew they could cope with bad conditions and low wages and so were less fearful about it.

That being said, however, the most provocative and challenging results with respect to occupational possible selves theory has to do with feared selves. Participants not only reported significantly fewer feared selves than hoped-for selves but also believed it to be significantly less likely that they would avoid a most feared self than achieve a most hoped-for one. In addition, none of the hypothesized motivational variables predicted participants' perceptions of avoiding their most feared self, and feared selves had significantly less affective salience than hoped-for selves. Yet for those who had feared selves, they were equally likely to know someone as well in the occupation they most feared as in the one they most hoped for and could provide vivid descriptions of what they feared. For example, a number indicated their fear of never moving beyond "fast food" jobs or reported fears about working at the local chicken processing plant ("I hate chicken guts") or about becoming a prostitute or having once again to become a "stripper."

For the most part, career assessment and counseling research and interventions focus on individual strengths. When one takes the Strong Interest Inventory (Harmon, Hansen, Borgen & Hammer, 1994) or the Holland Self-Directed Search (Holland, Fritzsche, & Powell, 1994) for example, the focus is on what one's interests are, that is, what one likes or enjoys. Interviews often focus on experiences or aptitudes that relate to assessed or expressed interests. When there are concerns about not achieving one's potential or about one's interests not being accurately measured, the emphasis is not on any negative attribute of the person or anything he or she might fear. The emphasis is on such things as the environment, for example, the null environment for women as discussed by Betz (1989) or lack of support for or barriers to (e.g., Betz & Fitzgerald, 1987) feelings of efficacy or ambition in nontraditional occupations (e.g., male nurses or female engineers). There is also focus on how the vocational assessment instruments may measure such things as societal expectations or socialization (Betz, 1993) or culture (Ward & Bingham, 1993) rather than vocational interests.

Thus the notion of feared occupations or feared occupational selves is a relatively foreign one to the career development, assessment, and counseling literature. Krumboltz (1993) does raise an issue with respect to career planning fears. He maintains that college students often avoid going to the career planning and placement centers until late in their school years because career decisions are so "crucial and overwhelming" that they cannot bear to face them. He labels the problem *zeteophobia*, from the Greek word meaning "fear of searching out." An important premise of possible selves theory is the motivational salience of feared selves. Therefore, future researchers need to investigate in greater depth the role of feared occupational possible selves and their impact on such things as career beliefs, planning, and satisfaction. Other research might focus on the effects of having fewer feared selves. Longitudinal work, such as that undertaken by Hooker and her colleagues (cf. Frazier et al., 2000) could be helpful here. Researchers could follow participants for 5 to 10 years to see if they achieved their most hoped-for selves and avoided their most feared ones. Comparisons could be made with respect to the role of feared

selves (or lack of them) in achieving occupational hoped-for selves.

Having fewer feared selves also raises issues about another critical part of possible selves theory, specifically that a balance between hoped-for and feared selves is more motivating (in achieving desirable selves or avoiding negative selves) than lack of balance. Our data are nonsupportive of that theoretical proposition. This result raises questions about the relevance of balance, at least in the occupational domain, and how balance is computed. If one looks at phenomena such as anxiety or ambition, the notion of moderation or a balance seems important. For example, lack of anxiety seems to provide little motivation, and excessive anxiety seems to paralyze one's ability to perform needed or desired tasks. However, it seems intuitive that one could have a strong ambition to become, for example, a ballet dancer but not have that specific and highly desired hoped-for self coupled with a feared occupation per se. However one could be highly motivated by fear of failure to achieve the occupational goal of ballet dancer. By the same token one could be extremely motivated to avoid poverty, and thus any one of a series of occupations could suffice to ensure a comfortable lifestyle. So perhaps, if a balance between hoped-for and feared selves provides motivation for achieving one's hopes (or avoiding one's fears), it might only do so for certain domains (e.g., the personal realm, hoping to have a life partner vs. fear of being alone). Or perhaps a reasonable fear of failure in general (as opposed to fearing a specific job or occupation) might fuel one's focus or motivation to achieve a desired goal or avoid a negative one. Because prior research and our data here find that there is not a balance between the number of feared and hoped-for selves that are generated, perhaps the construct should be scored differently to take the "naturally occurring" lack of balance (i.e., more hopes than fears) into consideration. Oyserman and Saltz (1993) found that balance of possible selves was not a central predictor in a path analysis used with a sample of young boys to explore delinquent involvement. They suggested a limitation in the manner in which balance is measured.

There are obvious limitations to this study such as the fact that the sample was geographically and ethnically restricted, as well as selective of those who were in educational classes and willing to participate in the research and to disclose personal information. There are also technical limitations such as relying on self-report only, possible order effects (albeit some questions logically could be only in a certain order), or restriction of range as the instructions limited participants to six hoped-for and six feared selves. We also only asked about possible selves in one domain, occupational. In addition, for this sample the reliability of the PE (Paulhus & Christie, 1981) was quite low, casting doubt on the personal efficacy results. Because 62 individuals knew no one in their most hoped-for occupation and 39 knew no one in their most feared occupation, between one third to one fifth of the sample could not be included in the regression analyses.

These limitations notwithstanding, the data provide some suggestions for the role of possible selves in envisioning and working toward desired, hoped-for occupations; raise questions about the possible selves construct of balance, at least in the occupational domain; and present challenges for further research about feared selves. We believe that such future research could provide data about how effective a possible selves approach can be for career counseling and planning. The results also demonstrate that this

special population of poor rural women could benefit from possible selves career interventions because they seem to have the imagination needed to envision occupational futures, a first step in moving toward them. Counseling psychologists can help these women build on this strength to improve their lives and those of their families.

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