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ABSTRACT

The development of an educational outcome expectations scale was prompted by a need for a measure tailored to college students' expected level of educational attainment. Studies were conducted in an undergraduate psychology course at a midwestern university. Participants (383 women, 276 males) attending a group counseling session completed a demographic questionnaire, the Educational Outcome Expectancy (EOE) Measure, and the Career Outcome Expectancy (COE) Measure. In study 1, in which the Educational Outcome Expectancy Scale and Career Outcome Expectancy Scale were administered to students (N=659), results demonstrated moderately high factor loadings for all items on the EOE Measure and for all items on the COE Measure. In study 2, which employed a similar protocol using a sample of undergraduates (N=938), the EOE Measure obtained robust factor loadings. The COE Measure obtained moderately high factor loadings across items without losing items that provide a well-rounded picture of the importance of education and work values. For study 3, a 1-month lapse was used to obtain reliability figures in a test-retest design. Results show that students' educational and career outcome expectancies are generally somewhat in flux, which can be expected for a college freshman sample. Results are promising as a way to test educational and career outcome expectancies. (Contains 3 tables and 28 references.) (JDM)

The Development of an Educational and Career Outcome Expectancy Scale

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The Development of an Educational and Career Outcome Expectancy Scale

As human agents, people make decisions and take action based on their capacity to be both reactive and proactive in their environment, according to Bandura's Social Cognitive Theory (SCT; Bandura, 1977; 1982; 1989). People's cognitive, motivational, and affective processes form the essence of their agentic capacity to learn new skills. Most people are familiar with the cognitive variable, self-efficacy, defined as one's confidence in their capability to execute a desired action in a particular domain in the near future (Bandura, 1982). People's percepts of self-efficacy may partly determine the environments people select, the decisions they make, the actions they choose to pursue, their tenacity in the face of obstacles, and their subsequent effectiveness in mastering a specific action.

Another important cognitive variable in SCT is one's outcome expectancy, which Bandura (1986) defined as people's beliefs about the consequences of one's actions in the near future. Outcome expectancies may include the anticipation of physical consequences (e.g., monetary), social consequences (e.g., approval, client getting better), and self-evaluation (e.g., self-satisfaction). Other people have identified outcome expectancies in related models such as Ajzen and Fishbein's (1970) model of behavioral intentions. Lent, Brown, and Hackett (1994), in their adaptation of SCT to vocational psychology, incorporated the value or importance of an intended consequence into the working definition of outcome expectancies based, in part, on earlier work by Vroom (1961) and Lofquist and Dawis (1978). That is, people differentially value anticipated consequences. One person may give high priority to choosing a career that will provide a high salary while someone else may prioritize having summers off as an intended consequence of their career choice. Bandura (e.g., 1982) posited that self-efficacy and outcome expectancy differentially affect one's actions. In situations where one's performance ensures the outcome, outcome expectations may contribute little above self-efficacy in predicting future actions. However, in situations where the outcomes are loosely linked to one's performance, outcome expectancies are thought to independently affect future actions.

Lent and colleagues, in their presentation of the Social Cognitive Theory of Career Development (SCCT; 1994), argued persuasively that career and academic environments result in a weak link between one's performance and subsequent outcomes. Due to this mismatch, outcome expectancies, according to SCCT and SCT, more generally, become important. For example, a gay male might forgo pursuing a career in the military due to anticipated negative consequences that may accrue despite a high sense of self-efficacy in the skills required to succeed in a military setting. In the SCCT, outcome expectancies play a critical role in the development of career-relevant interests, selection of academic and career choice options, and performance and persistence in educational and occupational pursuits.

In SCT, Bandura mostly focuses on the prediction of future actions although he does mention choice actions, that is, the act of choosing (e.g., Bandura, 1990). As human agents, people's choices about their lives and their environments may dramatically affect their subsequent actions. Teenage girls choosing to be sexually active and not choosing to use birth control can dramatically alter their career course. Graduate applicants selecting one university over another university alter who will influence and shape their careers. Adults choosing to have no children versus five children results in dramatically different life pursuits. Clearly, one's choices are fundamental to the prediction of subsequent actions.

One domain of outcome expectancies that has not received attention thus far is educational outcome expectancies (EOEs). An extension of Lent, Brown, and Hackett's Social Cognitive Career theory (SCCT), EOEs may help explain choice actions related to professional aspirations following the completion of various levels of education. EOEs refer to one's expectations that particular outcomes will accrue as a result of completion of some level of education. Based on SCCT, low EOEs should be associated with less ambitious professional aspirations, while high EOEs should prompt relatively more ambitious goals. EOEs would also be expected to directly relate to self-motivation, including the ability to persist in the face of obstacles to success. The relationship of EOEs to professional goals and ambitions carries far-reaching implications for the study of a number of specific research populations. For example, exploring the EOEs of college-aged women may help explain why the majority of degree-earning women tend to pursue less-

prestigious jobs relative to men following college (Hackett & Betz, 1995). EOEs may also be applied to minority populations; for example, bright American Indians may avoid college based on anticipated negative outcomes (e.g. leaving behind one's family and friends, lack of social approval) in spite of their high academic self-efficacy.

A second area which needs development is the application of outcome expectancies (OEs) to career pursuits. Career OEs are related to EOEs in that one's career choice is an early indication of her/his educational and career pursuits. In the model developed by Lent and colleagues (1994), choice actions (e.g., deciding on a particular major) are partly determined by one's outcome expectancies about that career choice. According to SCCT, when holding self-efficacy constant, if a person expects positive, highly valued consequences to result if she/he chooses a particular career, then the person should be more motivated to obtain the necessary skills and knowledge to pursue that career. The person should also be more likely to surmount obstacles in the pursuit of obtaining the necessary credentials to pursue the career.

For the current study, we are defining career outcome expectancies as self -perceptions of the anticipated consequences or outcomes that would accrue if the person were employed in the occupation of her/his choice. Outcome expectancies have been operationally defined in relation to math and science careers in vocational psychology (e.g., Fouad & Smith, 1996; Lopez, Lent, Brown, & Gore, 1997), research careers in counseling psychology (e.g., Bishop & Bieschke, 1998), counselor training (Larson, 1998); client attrition (e.g., Longo, Lent, & Brown, 1992), reading and writing achievement in educational psychology (e.g., Shell, Colvin, & Bruning, 1995), and management careers (Van Vianen, 1999), and career planning for secondary education students (e.g., Fouad & Smith, 1996; McWhirter, Rasheed, & Crothers, 2000).

Advancing our purpose in empirically testing SCCT required finding reliable and valid measures of educational and career outcome expectancy. A literature search revealed ten potential expectancy measures, only one of which had been factor-analyzed: the Personal Outcome Expectancies Scale developed and validated by Riggs, Warka, Barbasa, Bettancourt, & Hooker in 1994. This measure is intended for people already in the work force and is not appropriate for college students. Two other

measures provided outcome expectancy scores based on a ranking of the most important value out of a list of values (e.g. Bores-Rangel, Church, Szendre, & Reeves, 1990) or based on Holland codes (Gore & Leuwerke, 2000). The Outcome Expectations Scale, developed by Hackett, Betz, Casas, and Rocha-Singh (1992), is limited in its focus to successfully completing a bachelor's degree in engineering. Other related educational measures have focused on subject specific outcomes (e.g. Fouad & Smith, 1996; and Fouad, Smith, & Enochs, 1997; Lopez, Lent, Brown, & Gore, 1997; Shell, et al., 1995; Lent, et al., 1991). Brooks and Betz' (1990) measure of occupational values most closely resembled our intent to measure career outcome expectancy by using occupational values, but with the Brooks and Betz' measure, each item was examined individually rather than summed across items.

In the current study, the development of an educational outcome expectations scale was prompted by a need for a measure tailored to college students' expected level of educational attainment (e.g. bachelor's degree, doctoral degree). A second aim of this study was to validate a career outcome expectancy measure in a college sample. We have been specific in linking the measure to career choice to make it domain-specific to people who have made a career choice rather than people who are satisfied in their current career. Although this presentation focuses on college students, the measure could be validated with adults who are considering a career change. We present three studies that provide some initial construct validity and reliability estimates in the development of an educational and career outcome expectancy measure.

Study 1: Factor Analyses

Method

Participants and Procedure

Participants were solicited from two large undergraduate psychology courses from a large Midwest university in the spring of 2000. The sample was composed of 383 women and 276 men. The age range of the sample was 18 to 54 years with a mean age of 21 (SD=2.37). The ethnic breakdown of the participants was as follows: Caucasian=90%, African-American=3%, Hispanic=2%, other=2%, Asian American=2%,

Native American=1%. Additionally, 84.1% of the participants had declared their major at the time of the study, while 15.9% labeled themselves as undeclared. Participants included 390 (59.5%) freshmen, 159 (24.3%) sophomores, 63 (9.6%) juniors, 40 (6.1%) seniors, and three (0.5%) graduate-level students.

Participants attended a group testing session during which students volunteered to complete a packet of measures including the informed consent sheet, the demographic questionnaire, the Educational Outcome Expectancy Measure (EOE), and the Career Outcome Expectancy Measure (COE) for extra credit.

Instruments

Demographic Information. The demographic sheet contained items designed to elicit educational aspirations, choice of major, major choice status, career choice status, ethnicity, citizenship, year in college, and marital status.

The Educational Outcome Expectancy Scale (EOE). The EOE is a 6-item self-report questionnaire designed to assess what an individual expects from her or his education. Each item on the EOE is rated on a 6-point Likert scale, with 1 meaning that the individual does not at all expect the outcome listed in the item and 6 meaning that the individual very much expects the outcome.

The Career Outcome Expectancy Scale (COE). The COE is a 22-item career outcome expectancy measure based on Rounds, Henly, Dawis, Lofquist, & Weiss' (1981) listing of values in the Minnesota Importance Questionnaire. Conceptual writing (Lent, Brown, & Hackett, 1994) and other outcome expectancy measures (e.g., Hackett, Betz, Casas, & Rocha-Singh 1992) have frequently used values to operationalize the item content. Items on the COE are rated on a 6-point Likert scale, with 1 meaning that the individual does not at all expect the indicated outcome and 6 meaning that the individual very much expects the outcome.

Results and Discussion

Factor Analyses

For both the EOE and the COE, factor analyses were conducted separately and combined for women and men. Two principal axis factors extractions with varimax and oblique rotations were performed through the Statistical Package for the Social Sciences 8.0 for Windows (SPSS; 1998) on the six items of the EOE and the 22 items of the COE, respectively. Squared multiple correlations were used as the initial communality estimates, and the communalities were iterated. Factor loadings above .30 were retained (Tinsley & Tinsley, 1987).

EOE. Two and one factors, respectively, met the criteria of eigenvalues greater than one in the female and male samples, accounting for 68% and 54% of the variance. The two-factor solution for females was unsatisfactory because too few items loaded on the second factor, and the loadings were low.

Tables 1A and 1B present the Study 1 results for the one-factor solution for the EOE for the female and male samples, respectively. In the female sample, all items loaded at or above .52. For the males, all the items loaded at or above .57. The percentage of total variance for the female and male samples was 41% (n = 383) and 45% (n = 276), respectively.

COE. Seven and six factors, respectively, met the criteria of eigenvalues greater than one in the female and male samples, accounting for 38% and 42% of the variance. Factor solutions of 1-6 factors were examined for interpretability with both oblique and orthogonal rotations. The one-factor solution was preferred over multiple-factor solutions because it was the most theoretically coherent and generated the highest factor loadings across the items. Moreover, the other solutions produced no clear, meaningful differences across the factors.

Tables 2A and 2B present the Study 1 results for the one-factor solution for the COE for the female and male samples, respectively. In the female sample, all items loaded above .3, with the exception of three items. The percentage of total variance for the female and male samples, respectively, was 24% (n = 383)

and 34% (n = 276). Two of the three items that loaded below .3 in the female sample, also loaded below .3 in the male sample. The research team decided not to drop those items with loadings below .3 since they represented important work values (e.g. independence, moral values, authority) identified by Rounds, Henly, Dawis, Lofquist, & Weiss (1981) and others. Furthermore, upon reviewing the items, it seemed plausible that some of the item wordings may have been confusing. For example, "I will work alone" may be associated with a more negative connotation than a possible re-wording, "I will work independently." As such, the research team collected a second sample (Study 2), rewording those item stems that loaded below .3 in Study 1.

Estimates of Reliability

EOE. The internal consistencies were $\alpha = .77$ (n = 383) for the females and $\alpha = .83$ (n = 276) for the males. The item-total correlations ranged from .65 to .75 for females (see Tables 1A and 1B) and from .68 to .78 for males (see Tables 2A and 2B).

COE. The internal consistencies were $\alpha = .83$ (n = 383) for the females and $\alpha = .88$ (n = 276) for the males. The item-total correlations ranged from .32 to .64 for females with the exception of three items and from .31 to .73 for males with the exception of one item (see Tables 2A and 2B).

Descriptive Statistics

Both females and males in Study 1 appear to endorse moderately high educational outcome expectancies and career outcome expectancies as can be seen in Tables 1A, 1B, 2A, and 2B.

Study 2: Cross Validation

Method

Participants and Procedure

Using a protocol similar to that of Study 1, participants were solicited from two large undergraduate psychology courses from a large Midwest university in the spring of 2001. In the testing session, participants completed the demographic form, the EOE, and the revised COE for extra credit. The sample

was composed of 641 women and 508 men. The age range of the sample was 18 to 49 years with a mean age of 21 (SD=2.35).

Instruments

Demographic Information. The demographic sheet asked participants to identify their educational aspirations, choice of major, major choice status, career choice status, ethnicity, citizenship, year in college, and marital status.

The Educational Outcome Expectancy Scale (EOE). The EOE used in Study 1 was also administered in Study 2.

The Career Outcome Expectancy Scale (COE). The COE from the first study was used with the exception of six items that were revised. These six items, indicated with an asterisk in Table 1, were revised for purposes of clarity.

Results and Discussion

Factor Analyses

As with Study 1, factor analyses were conducted separately and combined for women and men. Two principal axis factors extraction specifying one factor was performed through the Statistical Package for the Social Sciences 8.0 for Windows (SPSS; 1998) on the 22 items of the COE. Given that we were replicating the findings from Study 1, we examined only the one-factor solution. Squared multiple correlations were used as the initial communality estimates, and the communalities were iterated. Factor loadings above .30 were retained (Tinsley & Tinsley, 1987).

Tables 1A, 1B, 2A, and 2B present the Study 2 results for the factor analysis for the EOE and the COE for the female and male samples, respectively. In both samples, all items loaded above .3. As the researchers suspected, with the COE, the re-wording of the items resulted in higher overall loadings. The percentage of variance accounted for in the factor analyses also increased (females: 34% (n = 641); males: 43% (n = 508)).

Estimates of Reliability

An estimate of consistency was computed for the females and males in Study 2. The internal consistencies were $\alpha = .83$ ($n = 641$) for the females and $\alpha = .86$ ($n = 508$) for the males. As illustrated by Tables 1 and 2, the item-totals were also high, with the range .71 to .78 for the female sample and .75 to .81 for the male sample.

Descriptive Statistics

Both females and males in Study 2 appear to endorse moderately high career outcome expectancies as can be seen in Tables 1A, 1B, 2A and 2B. For the EOE, the item-total correlations ranged from .70-.78 for females and from .74 - .81 for males. For the COE, the item-total correlations ranged from .41 to .73 for females and from .39 to .75 for males.

Study 3: Test-Retest Validation

Method

Participants and Procedure

Following the large group testing session, participants were contacted by email for an optional follow-up session. The follow-up sample was composed of 48 participants whose ages ranged from 19 to 23 years, with a mean age of 20 (SD=1.27). Participants included 29 (60.4%) freshmen, 8 (16.7%) sophomores, 10 (20.8%) juniors, and 1 (2.1%) senior. The ethnic breakdown of the participants was as follows: Caucasian=89.6%, Hispanic=6.3%, and other=4.1%. Additionally, 81.3% of the participants had declared their major at the time of the study, while 18.7% labeled themselves as undeclared.

Instruments

Demographic Information. The demographic sheet elicited information about participants' educational aspirations, choice of major, major choice status, career choice status, ethnicity, citizenship, year in college, and marital status.

The Educational Outcome Expectancy Scale (EOE). The EOE, described above in Studies 1 and 2, was employed in the follow-up session to assess the test-retest reliability of the measure.

The Career Outcome Expectancy Scale (COE). The revised COE from Study 2 was administered in the follow-up session.

Results and Discussion

A Pearson product-moment correlation was computed between educational outcome expectancies at Time 1 and Time 2. Students' educational outcome expectancies were somewhat in flux ($r = .48$, $n = 48$; $p<.001$), as expected for a predominantly college freshman sample. For the COE, test-retest reliability was established with an r of .52 ($n = 48$; $p<.0001$).

General Discussion

The overarching purpose of these three studies was to develop and validate educational and career outcome expectancy measures theoretically grounded in Social Cognitive Theory (SCT) developed by Bandura (e.g. 1977, 1982) and Social Cognitive Career Theory, developed by Lent and colleagues in 1994. Study 1, in which the Educational Outcome Expectancy Scale (EOE) and the Career Outcome Expectancy Scale (COE) were administered to a sample of college undergraduates ($N = 659$) enrolled in an introductory psychology course, demonstrated moderately high factor loadings for all items on the EOE (ranging from .53 to .80 across both genders) and for all items on the COE (ranging from .32 to .77 across genders, with the majority of items loading above .50) except for three items which loaded below .3. In accordance with the principles of new scale development, the research team decided to retain those items since they represented important work values (e.g. independence, moral values, authority) identified by Rounds, Henly, Dawis, Lofquist, & Weiss (1981) and others. However, these items (marked with an asterisk in Tables 2A and 2B) on the COE were completely re-worded (e.g. "I will work alone" was revised as "I will work independently) and three other items (marked with an asterisk in Tables 2A and 2B) were slightly revised for clarification purposes and presented again in Study 2.

In Study 2, which employed a similar protocol using a sample of undergraduates ($N = 938$), the EOE once again obtained robust factor loadings (ranging from .57 to .89 across genders, with all items loading above .64 excepting one item). For the COE, the re-wording of the problematic items used in Study 1 caused an increase in both overall item loadings and percentage of variance accounted for in both the female and male samples. In the female sample, the percentage of variance accounted for in the factor analyses increased from 24% to 34%, and, in the male sample, the percentage of variance accounted for increased from 34% to 43%. As a result, the COE obtained moderately high factor loadings across items without losing items that provide a well-rounded picture of important education and work values.

A test-retest design was used to obtain reliability figures over a one-month lapse between studies 2 and 3. For the EOE, a test-retest reliability coefficient of .48, ($n = 48$; $p<.001$) was obtained and for the COE, a test-retest reliability coefficient of .52 ($n = 48$; $p<.0001$) was obtained. These results show that students' educational and career outcome expectancies are somewhat in flux, which is to be expected for a predominantly college freshman sample. It is even possible that the pressure of choosing or having difficulty selecting a major may have come into play during the intervening month between the re-test session since the testing occurred in the spring semester.

We have attempted to develop and test a new measure of educational and career outcome expectancies. Study results are promising; theoretically-based one-factor solutions emerged for both scales and moderately high factor loadings were associated with the majority of items on both scales. However, there are study limitations that need to be addressed. In all three studies, the participants were predominantly White, so the results cannot be generalized to other ethnic groups. Furthermore, the sample used to validate the measures was a convenient sample of college students. Therefore, the measure cannot speak to the educational or career outcome expectancies of those already in the working world. Finally, other types of test validity (e.g. convergent validity) have yet to be established. Now that the measures have undergone preliminary testing using a convenient sample of college undergraduates, the next step will be to arrange to further test the measures using more heterogenous samples with the potential for an array of

exciting applications to diverse populations.

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Table 1A

Factor Loadings, Item-Total Correlations, and Item Means and Standard Deviations for the Educational Outcome Expectancy Scale: Females.

	Study 1				Study 2			
Item	Loading	M	SD	Item-total r	Loading	M	SD	Item-total r
5. To have intellectual stimulation	.80	4.92	1.09	.75	.85	5.45	.74	.71
4. To have grown as a person	.76	5.44	.75	.73	.84	5.49	.70	.78
6. To have learned skills for my career	.63	5.52	.73	.65	.78	5.53	.70	.75
3. Reduce chance of being fired	.53	4.75	1.15	.67	.54	4.94	1.08	.70
1. Be more competitive in job market	.53	4.92	1.09	.69	.62	5.07	1.07	.75
2. Be able to make more money	.53	4.95	1.08	.71	.57	5.11	1.06	.74
Total eigenvalue	3.00				3.47			
% total variance	50.02				57.79			

Note. The Study 1 sample was 383; the Study 2 sample was 641; overall the female sample was 1024 participants. The scale items range from 1 – 6 with higher scores indicating more positive educational outcome expectancies.

Table 1B

Factor Loadings, Item-Total Correlations, and Item Means and Standard Deviations for the Educational Outcome Expectancy Scale: Males.

	Study 1				Study 2			
Item	Loading	M	SD	Item-total r	Loading	M	SD	Item-total r
5. To have intellectual stimulation	.76	5.19	.98	.78	.79	5.13	.99	.80
4. To have grown as a person	.68	5.28	.95	.73	.81	5.17	1.00	.81
6. To have learned skills for my career	.67	5.35	.99	.73	.77	5.35	.87	.78
1. Be more competitive in job market	.67	5.23	1.00	.74	.68	5.13	.98	.76
3. Reduce chance of being fired	.64	4.77	1.25	.75	.64	4.83	1.18	.75
2. Be able to make more money	.57	5.28	.95	.68	.64	5.12	1.05	.74
Total eigenvalue	3.24				3.60			
% total variance	54.00				59.97			

Note. The Study 1 sample was 276; the Study 2 sample was 508; overall the male sample was 784 participants. The scale items range from 1 – 6 with higher scores indicating more positive educational outcome expectancies

Table 2A

Factor Loadings, Item-Total Correlations, and Item Means and Standard Deviations for the Career Outcome Expectancy Scale: Females.

	Study 1				Study 2			
Item	Loading	M	SD	Item-total r	Loading	M	SD	Item-total r
2. I will get a feeling of accomplishment.	.64	5.53	.66	.62	.60	5.47	.77	.60
19. I will be somebody in the job	.63	5.29	.84	.61	.73	5.18	.94	.73
6. People at my place of employment will be easy to make friends with	.61	5.09	.95	.61	.71	5.02	.94	.72
15. I will get recognition/praise for the things I do	.58	4.82	1.03	.59	.69	4.91	1.00	.70
1. I will do something that makes use of my abilities	.58	5.61	.61	.57	.56	5.57	.72	.56
13. Policies and practices will be observed consistently	.56	5.03	.98	.57	.66	5.11	.97	.66
11. My supervisor will communicate expectations well	.56	4.83	.94	.57	.64	4.90	1.00	.64
14. I will have good working conditions	.56	5.28	.81	.57	.67	5.27	.87	.66
4. I will have an opportunity for self-advancement	.54	5.07	.95	.58	.60	5.28	.85	.62
8. I will try out my own ideas	.53	4.95	1.01	.56	.60	4.91	1.05	.64
16. I will make decisions on my own	.53	5.00	.93	.55	.63	4.88	.97	.66
17. The employer will provide for my continuing employment	.52	4.75	1.04	.53	.63	4.89	1.01	.64

Table 2A continued

Item	Study 1 Loading	M	SD	Item-total r	Study 2 Loading	M	SD	Item-total r
10. My supervisor/boss will back me up	.50	4.58	1.06	.54	.63	4.75	1.05	.65
21. *People of my ethnic origin will be accepted and will have good job possibilities	.48	5.36	.82	.52	.58	5.27	.94	.59
20. I will do something different every day	.46	4.63	1.20	.51	.47	4.64	1.16	.53
18. I will do things for other people	.44	5.39	.83	.45	.62	5.28	.85	.62
7. My salary will compare well with that of others	.36	4.65	1.17	.44	.42	4.65	1.24	.47
3. *I will not be bored	.35	4.83	.95	.41	.45	5.10	1.14	.49
22. *My work hours will be flexible to meet the needs of the family	.32	4.83	1.22	.37	.45	4.59	1.25	.52
5. *I will direct other people's activities	.27	4.23	1.23	.37	.49	4.64	1.23	.54
9. *I will work independently	-.22	2.23	1.22	-.01	.30	4.16	1.33	.39
12. *I will not be required to act in ways that are morally wrong	.21	4.78	1.42	.32	.41	5.28	1.16	.41
Total eigenvalue	6.05				8.03			
% total variance	24.27				33.66			

Note. The Study 1 sample was 383; the Study 2 sample was 641; overall the female sample was 1024 participants. The scale items range from 1-6 with higher scores indicating stronger career outcome expectancies. The asterisk notes items that were revised in Study 2.

Table 2B

Factor Loadings, Item-Total Correlations, and Item Means and Standard Deviations for the Career Outcome Expectancy Scale: Males.

	Study 1				Study 2			
Item	Loading	M	SD	Item-total r	Loading	M	SD	Item-total r
2. I will get a feeling of accomplishment.	.77	5.31	.95	.73	.74	5.17	.91	.73
1. I will do something that makes use of my abilities	.74	5.43	.90	.71	.65	5.34	.94	.65
19. I will be somebody in the job	.70	5.01	1.01	.70	.73	4.90	1.03	.73
14. I will have good working conditions	.69	4.98	1.07	.69	.75	4.99	.99	.75
6. People at my place of employment will be easy to make friends with	.68	4.85	1.08	.66	.70	4.75	1.01	.71
4. I will have an opportunity for self-advancement	.67	5.11	.98	.67	.76	5.06	.94	75
15. I will get recognition/praise for the things I do	.62	4.61	1.20	.64	.69	4.68	1.06	.70
10. My supervisor/boss will back me up	.61	4.50	1.13	.64	.68	4.55	1.07	.70
21. *People of my ethnic origin will be accepted and have good job possibilities	.59	5.01	1.12	.60	.48	4.98	1.16	.52
17. The employer will provide for my continuing employment	.58	4.76	1.06	.61	.70	4.77	1.12	.71

Table 2B continued

Item	Study 1 Loading	M	SD	Item-total r	Study 2 Loading	M	SD	Item-total r
11. My supervisor will communicate expectations well	.58	4.51	1.14	.60	.64	4.54	1.14	.67
18. I will do things for other people	.57	5.02	1.04	.60	.70	4.91	1.00	.71
13. Policies and practices will be observed consistently	.56	4.71	1.20	.61	.68	4.72	1.05	.70
8. I will try out my own ideas	.56	4.85	1.13	.58	.67	4.82	1.03	.68
7. My salary will compare well with that of others	.49	4.75	1.22	.52	.58	4.66	1.16	.60
16. I will make decisions on my own	.49	4.90	.98	.51	.60	4.71	1.05	.63
20. I will do something different every day	.45	4.32	1.27	.50	.55	4.64	1.16	.59
5. *I will direct other people's activities	.42	4.36	1.25	.48	.49	4.19	1.20	.61
22. *My work hours will be flexible to meet the needs of the family	.36	4.55	1.23	.41	.44	4.30	1.26	.51
3. *I will be not be bored	.35	4.52	1.15	.41	.63	4.70	1.20	.65
9. *I will work independently	-.19	2.49	1.20	-.01	.31	3.94	1.31	.39
12. *I will not be required to act in ways that are morally wrong	.19	4.30	1.71	.31	.42	4.80	1.37	.48
Total eigenvalue	7.51				9.36			
% total variance	34.12				42.57			

Note. The Study 1 sample was 276; the Study 2 sample was 508; overall the male sample was 784 participants. The scale items range from 1-6 with higher scores indicating stronger career outcome expectancies. The asterisk notes items that were revised in Study 2.

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