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Validity of the Career Factors Inventory

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The present study examined the construct and concurrent validity of the Career Factors Inventory (CFI; Chartrand, Robbins, & Morrill, 1989). The CFI, along with the Career Choice Status Inventory (Savickas, 1993), the Vocational Identity Scale (VIS; Holland, Daiger, & Power, 1980), and the Career Development Inventory—Adult Form II (CDI-A; Super, Zelkowitz, & Thompson, 1975), were completed by 227 college students. Strong support for the CFI's construct validity was provided by a principal components analysis showing four components that paralleled the four scales in the inventory and correlations in the expected direction with age and year in school. Evidence in support of the CFI's concurrent validity was provided by correlations in the expected direction with career decidedness, vocational identity, and career development.

The Career Factors Inventory, a relatively new multidimensional measure of career indecision, emerged as a result of decades of research which refined how career theorists and practitioners view indecision. The present article begins by tracing the evolution of career indecision scales from their origin as questions about a dichotomous state, through their advancement to measures of a unidimensional continuum, to their current status as inventories of a multidimensional construct. Following this precis, the article examines the validity of the Career Factors Inventory.

Evolution of Career Indecision Scales

In founding the field of vocational guidance, Parsons advised counselors to classify clients into two types:

> First, those who have well developed aptitudes and interests and a practical basis for a reasonable conclusion in respect to the choice of a vocation. Second, boys and girls with so little experience that there is no basis for a wise decision. (Parsons, 1909/1967)

Accordingly, early studies of career indecision concentrated on identifying differences between students who were decided and those who were undecided about their career plans (Slaney, 1988). Contradictory results from these studies led some theorists to attribute the conflicting research results to a measurement problem. A possible source of measurement error in these early studies arose from viewing indecision as a dichotomous condition,

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that is, an individual was either decided or undecided. To resolve this problem, researchers constructed measures of career indecision which would identify degree of and reasons for indecision.

The Career Decision Scale (CDS; Osipow, Carney, Winer, Yanico, & Koshier, 1976) is the prototypical instrument for scaling degree of indecision, although other instruments such as the Vocational Decision-Making Difficulties Scale (Holland, Gottfredson, & Nafziger, 1973) preceded it. The CDS item content deals with antecedents of career indecision and the total score indexes degree of undecidedness. The CDS has accumulated strong support for its reliability and validity (Osipow, 1987; Savickas, 1990).

The success of the CDS in indexing degree of indecision prompted many researchers and practitioners to wonder if the CDS could be used for more than assigning heterogeneous groups of clients to different career interventions based on their overall degree of indecision. In particular, they explored the potential of CDS items for composing subscales that could, in addition to indexing overall degree of indecision, more precisely identify differences in the specific barriers which impede decision making among individuals at the same overall level of indecision. The preferred strategy in these studies has been to factor analyze the responses of large groups of students to determine the latent dimensions which structure the manifest antecedents of indecision stated in the CDS's 18 items. The latent dimensions were used as the basis for forming CDS subscales. At least seven such factor-analytic studies have been conducted to date. Slaney (1988) discussed the more important studies and compared their results. This line of research seems to have culminated in the studies by Shimizu, Vondracek, Schulenberg, and Hostetler (1988) and by Vondracek, Hostetler, Schulenberg, and Shimizu (1990) that compared the factor analytic studies and concluded that differences in results were due in part to diverse factoring techniques. Based on their own empirical work, they proposed four factor-based subscales for the CDS.

Examining the potential of the CDS items to form multiple scales has not been endorsed by the senior author of the CDS. To the contrary, Osipow has recommended that counselors use the CDS total score "because of the unreliability of the factors across various studies" (Osipow, 1980, p. 2) and to avoid "the reliance on a factor derived scale based on two or three items" (Osipow, 1994, p. 17). However, Osipow (1987, p. 6) does recommend that counselors consider a client's item responses in planning specific counseling strategies. Martin, Sabourin, Laplante, and Coallier (1991) also argued for using the CDS as an unidimensional measure. They presented empirical evidence in support of their conclusion that the CDS should be used to measure level of indecision because it does not possess a clear factor structure. Readers interested in the current status of the debate about the usefulness of CDS subscales may consult a set of articles recently published in the *Journal of Career Assessment* (Osipow, 1994; Laplante, Coallier, Sabourin, & Martin, 1994; Schulenberg, Vondracek, & Shimizu, 1994; and Shimizu, Vondracek, & Schulenberg, 1994).

The controversy surrounding the validity of the CDS for use as a multidimensional inventory has prompted other researchers to construct

indecision inventories that are multidimensional by design. We consider these unequivocally multiscale inventories to be second-generation measures of indecision. The most prominent of these second-generation measures are the two-dimensional Commitment to Career Choices Scale (Blustein, Ellis, & Devenis, 1989), the three-dimensional Career Decision Profile (Jones, 1989), the four-dimensional Career Factors Inventory (Chartrand, Robbins, Morrill, & Boggs, 1990), and the five-dimensional Career Decision Diagnostic Assessment (Bansberg & Sklare, 1986).

Of these second-generation measures, the Career Factors Inventory (CFI) seems to be garnering the most research examining its validity. The CFI was rationally constructed to fit a multidimensional model of career indecision. The original form of the CFI was based on five salient career indecision components that emerged from a review of the literature (Robbins, 1983; Robbins, Morrill, & Boggs, 1987). However, when submitted to a confirmatory factor analysis, the five-factor model proved less tenable than a four-factor model. The results of this analysis shaped the current form of the CFI (Chartrand, Robbins, & Morrill, 1989) into a four scale, 21-item instrument for the differential diagnosis of career indecision. The CFI consists of two informational scales and two personal-emotional scales.

Need for Self-Knowledge (NFSK, 4 items), an information scale, measures the need for self-definition and discovery.

Need for Career Information (NFCI, 6 items), an information scale, measures perceived need to acquire factual data and experience concerning various occupations prior to making career commitments.

Career Choice Anxiety (CCA, 6 items), a personal-emotional scale, measures level of reported anxiety attached to the career decision-making process.

Generalized Indecisiveness (GI, 5 items), a personal-emotional scale, measures degree of inability to make decisions, even when the necessary conditions for decision making exist.

The scales of the CFI seem to correspond rather closely to Parson's (1909/1967) venerable triad for career choice: self-knowledge, occupational information, and rational decision making. The two information scales correspond to having "a practical basis for a reasonable conclusion" whereas the two personal-emotional scales correspond to making "a wise decision."

Correlations between the CFI scales and other instruments (including the Goal Instability Scale [Robbins & Patton, 1985], the Rosenberg Self-Esteem Scale [Rosenberg, 1979], the State-Trait Anxiety Inventory [Spielberger et al., 1983], the Vocational Identity Scale [Holland et al., 1980], and the Career Decision Scale [Osipow et al., 1976]) provided initial support for convergent and discriminant validity for the CFI (Chartrand et al., 1990; Chartrand & Robbins, 1990). Moreover, reasonable internal consistencies (.73 – .86) and test-retest reliabilities (.79 – .84) for the subscales have been reported (Chartrand et al., 1990). Thus, the CFI holds promise as a multidimensional measure of career indecision. However, additional studies to determine its reliability and validity are necessary before it can be confidently used by practitioners for assigning clients to distinct treatments.

Accordingly, the present study investigated the psychometric properties of the CFI. The first objective was to investigate the internal consistency (coefficient alpha) and the construct validity (factor analysis) of the scales to determine whether the results of Chartrand and her colleagues' original study can be replicated. Given the issue of multidimensionality, it is important to confirm the CFI's factor structure and the purity of each CFI scale.

The second objective for the present study was to examine the concurrent validity of the CFI by considering its relation to career development and vocational identity. This objective implemented the call by Chartrand and her colleagues (1990) for discriminant validation research to "help clarify similarities and differences between career indecision scales, career decision-making scales, and career maturity scales" (p. 499). We examined the relationships between CFI scales and (a) a decidedness scale, (b) a measure of vocational identity, and (c) a measure of career development. We expected that the CFI information scales would relate to decidedness more strongly than the personal-emotional scales because we believed that individuals with informational deficits would exhibit the lower degree of career decidedness.

With regard to vocational identity, we expected that vocational identity would relate inversely to career choice anxiety and generalized indecisiveness because a strong sense of vocational identity is thought to foster comfortable and confident decision making (Holland, Johnston, & Asama, 1993). Moreover, vocational identity should also relate inversely to need for information about self and about careers because vocational identity involves a clear and stable picture of self and goals. This expectation that the CFI scales would each correlate similarly to vocational identity coincides with the report by Chartrand and colleagues (1990) that vocational identity correlated similarly to each CFI scale: vocational identity correlated –.40 to both Need for Self-Knowledge and Career Choice Anxiety, –.33 to Generalized Indecisiveness, and –.35 to Need for Career Information.

With regard to career development, we expected the CFI to relate more strongly to the career development tasks that involve making choices—namely crystallizing field-and-level preferences and specifying a career choice—than to the career development tasks that involve converting a career choice into an occupational position, namely implementing a choice and stabilizing in a position. In particular, we expected the CFI informational scales to relate more strongly to the crystallization task than to the specification task, because crystallizing tentative preferences requires knowledge about self and about the world of work. Deficits in these two information domains should hinder crystallization. Conversely, we expected the CFI personal-emotional scales to relate more strongly to the specification task than to the crystallization task, because specifying a choice requires personal and emotional commitments. Choice anxiety should hinder specification.

Method

Participants

The 214 participants that provided usable data for the present study were among 227 participants recruited from a convenience-cluster sample

drawn from courses in the College of Education and the Mathematics Department at a large, public university in the Midwest. The gender distribution of these 214 participants was 135 females (63%), 69 males (32%) and 10 unidentified (5%). Participants had a mean age of 21.2 years with a range from 17 to 43, with 91% between 18 and 24. The distribution by school year was 41 freshman (19%), 52 sophomores (24%), 37 juniors (17%), 52 seniors (24%), 9 graduate students (4%), and 23 unidentified (11%).

Measures

Career Development Inventory - Adult Form II

Career development was operationally defined by the first four subscales of the Career Development Inventory–Adult Form II (CDI-A): crystallization, specification, implementation, and stabilization. The crystallization subscale measures concern with and behaviors that address learning about self and about the world of work so as to clarify ideas about the general type of work one would like to do. The specification subscale measures concern with and behaviors involved in making an occupational choice. The implementation subscale measures concern with and behaviors that address preparing for and obtaining a job in a chosen occupation. The stabilization scale measures concern with and behaviors that address making one's job more secure by performing assigned duties well and adapting to the company's way of doing things.

Scores on each of these four CDI-A scales indicate the amount of career concern that an individual experiences relative to coping with a particular task of career development. Each of the four subscales consists of 10 items to which a respondent indicates amount of concern on a 5-point Likert scale that ranges from 1 (*no concern*) to 5 (*great concern*), with the total score for each task being the sum of the responses to the 10 items (range = 10–50). Internal consistencies in the present study were .94 for crystallization, .95 for specification, .94 for implementation, and .92 for stabilization. Validity evidence pertinent to the CDI-A can be found in the manual for the Adult Career Concerns Inventory (Super, Thompson, & Lindeman, 1988).

Vocational Identity Scale

Vocational identity was operationally defined by the Vocational Identity Scale (VIS). Holland and his colleagues described vocational identity as awareness of and ability to specify one's interests, personality characteristics, strengths, and goals as they relate to career choices. A strong sense of vocational identity is postulated to facilitate making good vocational decisions. Internal consistency reliabilities between .86 and .89 were reported for the VIS. Internal consistency in the present study was found to be .93. Evidence supporting the validity of the VIS is provided by Holland, Johnston, and Asama (1993) and by Leong and Morris (1989).

Career Choice Status Inventory

Career decidedness was operationally defined with the Career Choice Status Inventory (CCSI). The CCSI implements recommendations for an

improved measure of decidedness for use as a criterion in indecision studies (Savickas, Carden, Toman, & Jarjoura 1992). This six-item scale attempts to improve upon prior decidedness scales (e.g., the CDS's Certainty Scale and the Career Decision profile's Decidedness Scale) by inquiring about satisfaction within three distinct choice domains: career field, academic major, and occupation. Each domain has two questions, one that addresses satisfaction with a general preference and one that addresses satisfaction with a specific choice. Participants responded to the items using a 6-point Likert scale that ranged from 0 (*I have not yet done this*) to 5 (*Well satisfied with choice*); thus, total scores could range from 0 to 25. Coefficient alpha for the participants in the present study was .91.

Procedures

Permission was obtained from instructors of courses in the College of Education and in the Mathematics Department to recruit student volunteers who were given time in class to complete the measures. Only four students in these courses chose not to participate in the study, resulting in 227 participants. Participants completed a demographic survey that identified the examinee's age, sex, and school year. Each examinee selected a personal identification number that was used to return the results of the criterion measures to for his or her personal use while still retaining anonymity, thus encouraging honest and thoughtful responses.

Results

Usable data was produced by 214 of the 227 participants. Table 1 presents the means, standard deviations, gender comparisons, and coefficient alphas for the measures.

Gender differences were examined for each scale. The only statistically significant gender difference to emerge from the *t*-tests occurred on the Generalized Indecisiveness scale ($p = .03$), with women reporting a higher score. Because only 1 of the 10 comparisons of male and female scores showed a statistically significant difference—and this difference was not particularly meaningful (effect size = .31)—we combined the two sets of scores for the next set of analyses.

Construct Validity

The alpha internal consistency estimates for the CFI scales were slightly higher in the present study than in Chartrand and colleague's (1990) original study: .91 for CCA, .79 for GI, .87 for NFCI, and .86 for NFSK.

Table 2 presents the Pearson product-moment correlations between the variables. Among the correlations of the CFI subscales, the highest relationship occurred between the two informational scales NFCI and NFSK ($r = .68$), followed by NFCI and CCA ($r = .54$), the two personal-emotional scales GI and CCA ($r = .50$), NFSK and CCA ($r = .46$), NFSK and GI ($r = .42$) and NFCI and GI ($r = .41$). All correlations were significant at the .01 level.

A principal components analysis of the 21 CFI items, followed by a varimax rotation produced four factors. The results of the analysis may be found in Table 3. The six CCA items had loadings of .68, .70, .76, .80, .81,

Table 1
Descriptive Statistics and Reliability Estimates for the Career Factors Inventory, Career Development Inventory–Adult Form II, Vocational Identity Scale, and Career Choice Status Inventory

Variable	# items	Women		Men		α
		M	*SD*	*M*	*SD*	
Career Factors Inventory						
Career Choice Anxiety	6	14.84	5.62	13.87	5.17	.91
Generalized Indecisiveness	5	13.59	3.97	12.38	3.45	.79
Need for Career Information	6	15.04	6.38	14.70	5.76	.87
Need for Self-Knowledge	4	9.56	4.75	8.67	3.59	.86
CFI-Total	21	53.04	17.06	49.61	13.41	.92
Career Development Inventory–Adult Form II						
Crystallization	10	31.82	12.04	30.28	10.36	.94
Specification	10	33.44	12.25	31.86	10.86	.95
Implementation	10	37.33	10.65	36.35	9.66	.94
Stabilization	10	31.68	4.16	31.15	10.51	.92
Vocational Identity Scale	18	12.45	6.81	13.51	4.14	.93
Career Choice Status Inventory	6	8.93	4.16	8.68	3.15	.91

and .82 on a single factor and no other items loaded higher than .33 on that factor. None of the CCA items loaded higher than .34 on any other factor. The five GI items had loadings of .64, .67, .68, .71, and .78 on a single factor, and no other items loaded higher than .34 on that factor. None of the GI items loaded higher than .29 on any other factor. The six NFCI items had loadings of .56, .63, .65, .75, and .77 on a single factor. Two other items had loadings of .53 and .56 on that factor. These were both NFSK items. None of the NFCI items loaded higher than .35 on any other factor. The four NFSK items had loadings of .53, .65, .81, and .84 on a single factor, and no other items loaded higher than .35 on that factor. Two NFSK items had loadings of .53 and .56 on the factor defined by the NFCI.

Three of the CFI scales correlated significantly with age. The highest correlation was between age and CCA ($r = -.23$), followed by NFSK ($r = -.22$) and NFCI ($r = -.19$). All correlations were significant at the .01 level. GI was not significantly correlated with age. Two of the CFI scales correlated significantly with school year. The highest correlation was between school year and NFSK ($r = -.20$, $p < .01$) followed by GI ($r = -.14$, $p < .05$).

Concurrent Validity

Significant correlations were obtained between each CFI scale and the CCSI. Correlations were highest between CCSI and NFCI ($r = -.48$), followed by CCSI and CCA ($r = -.44$), NFSK ($r = -.32$) and GI ($r = -.28$). All were significant at the .01 level.

Table 2
Scale Correlations for the Career Factors Inventory, Career Development Inventory–Adult Form II, Vocational Identity Scale, and Career Choice Status Inventory

Variable	Age	School Year	Career Factors Inventory					Career Development Adult Form II				Vocational Identity Scale
			CCA	GI	NFCI	NFSK	TOT	CRY	SPEC	IMPL	STAB	
Career Factors Inventory												
Career Choice Anxiety (CCA)	–.23**	–.08										
General Indecisiveness (GI)	–.06	–.14*	.50**									
Need for Career Information (NFCI)	–.19**	–.13	.54**	.41**								
Need for Self-Knowledge (NFSK)	–.22**	–.20**	.46**	.42**	.68**							
CFI-Total (TOT)	–.23**	–.17*	.80**	.69**	.86**	.80**						
Career Development Inventory - Adult Form II												
Crystallization (CRY)	–.19**	–.16*	.28**	.16*	.46**	.32**	.41**					
Specification (SPEC)	–.19**	–.13	.28**	.17*	.46**	.26**	.39**	.88**				
Implementation (IMPL)	–.15*	–.06	.19**	.11	.27**	.12	.23**	.73**	.77**			
Stabilization (STAB)	.00	.02	.20**	.06	.21**	.11	.20**	.63**	.63**	.70**		
Vocational Identity Scale	.10	.07	–.60**	–.45**	–.53**	–.46**	–.65**	–.36**	–.31**	–.21**	–.17*	
Career Choice Status Inventory	.14*	.13	–.44**	–.28**	–.48**	–.32**	–.50**	–.32**	–.29**	–.12	–.16*	.47**

*$p < .05$. **$p < .01$.

Significant correlations were obtained between each CFI scale and the VIS. Correlations were highest between VI and CCA ($r = -.60$), followed by VI and NFCI ($r = -.53$), NFSK ($r = -.46$) and GI ($r = -.45$). All were significant at the .01 level.

Correlations between the CFI and the CDI-A scales showed that each CFI scale related most and nearly equally to the CDI-A scales Crystallization and Specification. NFCI had the strongest correlation ($r = .46$ for NFCI with both Crystallization and Specification), followed by NFSK ($r = .32$ and .26, respectively), CCA ($r = .28$ for both), and GI ($r = .16$ and .17, $p < .05$). Similarly, each CFI scale related nearly equally to the ACCI scales Implementation and Stabilization with NFCI relating highest ($r = .27$ and .21 for Implementation and Stabilization, respectively), followed by CCA ($r = .19$ and .20, respectively). Except where noted, these were significant at the .01 level, and no other significant correlations were found.

Discussion

The results of this study strongly support Chartrand and colleagues' (1990) original findings and further indicate that the CFI relates as expected to career decidedness, vocational identity, and career development.

The results of the *t*-tests between CFI scale scores for females and males exactly replicate Chartrand et al.'s result of a significant difference between the sexes found only on generalized indecision. The intercorrelations of the CFI scales showed patterns similar to those found in Chartrand et al.'s (1990) study. In that study, the highest correlations occurred between the two information factors, as found in the present study, followed by the two personal-emotional factors. This ranking was followed closely in the present study. However, the degree of correlation was nearly identical in the present study to those of the original work, with a tendency toward slightly higher correlations in the present study.

The results from the coefficient alpha internal consistency estimates and from the principal components analysis lend strong support to the construct validity of the CFI. A varimax rotation produced four factors that almost perfectly reproduce the structure hypothesized by Chartrand et al. (1990). The resulting factor matrix approximates the stringent conditions outlined in Thurstone's (1947) principles for simple structure. When factor analytic results come close to meeting Thurstone's classic criteria, as in the present study, the factors may be interpreted with little ambiguity. In the present instance, we concluded that the CFI items on each subscale load highly on a single common factor and load weakly on other factors, supporting the position that the items on each subscale are relatively pure indicators of a single common dimension. The correlations between the CFI and measures of career development, vocational identity, and career decidedness are in directions that coincide with the dimensions that the CFI purports to measure, thereby supporting its construct validity.

With regard to chronological age, the CFI performed as expected for a measure of career indecision. CFI scales, with the exception of generalized indecision, showed the expected low, inverse correlation with age. Older students were more decided. The CFI's relation to school year was

unexpected. CFI NFSK related inversely to higher level of education, yet CCA and NFCI did not. Interestingly, GI related inversely to level of education, but not to age. This finding deserves further attention to determine whether it is a statistical anomaly within the current data set or a meaningful distinction.

Turning now to concurrent validity, we discuss the CFI's relations to decidedness, career development, and vocational identity. The correlations between the CFI scales and the career decidedness measure provide support for the concurrent validity of the CFI. The CFI associated as expected with career decidedness in that each CFI scale correlated significantly with career decidedness, meaning lower indecision factors associated with greater decidedness about career field, academic major, and occupation. However, we did not find the exact pattern of correlations that we had predicted. We expected stronger association with the informational scales than with the personal-emotional scales. The strongest correlation of the set was between decidedness and less NFCI ($r = -.48$), yet the second strongest correlation was with less CCA ($r = -.44$).

Vocational identity also correlated moderately and negatively with each of the CFI scales in the present study (ranging from –.6 for CCA to –.45 for GI), and generally to a higher degree than in Chartrand and colleagues' original work (in which the range was from –.40 to –.33, respectively). The consistent pattern of correlations between the CFI scales and vocational identity also strongly supports the convergent validity of the CFI in that it was hypothesized that vocational identity would relate about equally to each CFI scale.

✓ Regarding the relation of the CFI to career development, the results supported the prediction that the CFI scales would relate more strongly to the crystallization and specification tasks than to the implementation and stabilization tasks. The CFI total score correlated .41 and .39 in concern with the two decisional tasks, whereas it correlated .23 and .20 in concern with the two implementation tasks. Moreover, correlations between the CFI total score and the CDI-A scales decreased uniformly as the CDI-A scales increased developmentally. The four CFI scales generally followed this same pattern of inverse association. As career concerns focus on higher tasks, factors of career indecision uniformly decrease. This pattern of correlations has come to be expected from measures of career indecision, both logically and empirically: logically because indecision is a construct which decreases in intensity as career development increases and empirically because of the results from numerous studies of the relation between the Career Decision Scale and career development.

The differential prediction that separated the pairs of CFI scales in expecting that the two informational scales would correlate more strongly to crystallization and that the two personal-emotional scales would correlate more strongly to specification was not supported by the results. Rather than showing the expected differentiation, each CFI scale correlated almost identically to both crystallization and specification.

Table 3
CFI Rotated Factor Loading Matrix

CFI scale	Item	Factor 1	Factor 2	Factor 3	Factor 4	h^2
Career Choice Anxiety	7	.76	.20	.34	.15	.76
	8	.81	.22	.18	.12	.75
	9	.80	.20	.19	.11	.73
	10	.82	.19	.14	.09	.74
	11	.68	.14	.16	.12	.52
	12	.70	.21	.12	.18	.58
Generalized Indecisiveness	4	.25	−.03	.78	.17	.70
	5	.23	.12	.71	.11	.58
	6	.26	.09	.68	.09	.55
	18	−.02	.29	.67	−.07	.54
	19	.21	.18	.64	.19	.52
Need for Career Information	1	.23	.56	.07	.35	.49
	13	.14	.77	.17	−.09	.65
	14	.20	.75	.05	.21	.65
	16	.18	.79	.09	.30	.75
	20	.33	.63	.18	.21	.58
	21	.28	.65	.24	.22	.61
Need for Self-Knowledge	2	.21	.8	.17	.81	.76
	3	.17	.21	.08	.84	.79
	15	.15	.56	.15	.65	.78
	17	.11	.53	.28	.53	.65
Eigenvalue		4.17	3.95	2.95	2.62	13.68
% total variance		.20	.19	.14	.12	.65
% trace (common variance)		.30	.29	.22	.19	1.00

Several comments about the Generalized Indecisiveness scale seem warranted. The GI scale had only a weak association with career development and an inverse, nonsignificant relation with chronological age; yet, it did relate moderately to vocational identity. Among the four CFI scales, GI was least related to career development with two low and two nonsignificant correlations between GI and the four CDI-A scales. This result might have been anticipated because GI is a personality trait and should not correlate highly with specific developmental concerns. The GI scale's much stronger association with vocational identity supports the concurrent validity of the scale to a certain extent. Nevertheless, we concluded that the GI items lack face validity as indicators of indecisiveness. The CFI authors appropriately define indecisiveness as an "inability to make decisions even when the necessary conditions to do so are present" (p. 493). However, the five items in the GI scale portray an individual, at worst, as "slow and uncertain" (items 18 & 19) when making most decisions

and describes the experience of decision making as "hard, hazy, and frustrating" (items 4, 5, & 6). These descriptors do not denote an inability to make decisions. Instead, they denote a difficulty in making decisions, somewhat resembling the construct operationally defined by the Vocational Decision-Making Difficulties Scale (VDMD; Holland et al., 1973). The VDMD scale was partially incorporated into the Vocational Identity Scale, which may, in part, contribute to the correlation between the GI scale and the VIS. Further work on the CFI might profit by examining the GI scale to determine its validity as a measure of decision-making inability versus decision-making difficulty.

In sum, the results of the present study strongly support the construct and concurrent validity of the CFI. Its factor structure is clear and the associated scales relate as expected to career decidedness, vocational identity, and career development. The CFI displays strong potential as a multidimensional measure of career indecision that, with accumulating validity evidence, may prove to be a reliable assessment device to aid counselors in the assignment of career clients to differential interventions.

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