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ABSTRACT

Self-appraisal is a major component in career maturity. Forty-six men and women completed the Career Maturity Inventory, the Temperament and Values Inventory, and rating forms that required self-estimates of the characteristics purportedly measured by the Temperament and Values Inventory. Self-appraisal was defined in terms of difference scores between self-estimates and Temperament and Values Inventory scale scores. Pearson correlations of the difference scores and each of the six Career Maturity Inventory scales (with coefficients corrected for attenuation by measurement error) provided strong support for the proposition that self-appraisal is a function of career maturity. (Author/LRA)

Self-Appraisal of Career-Relevant Temperaments and Values as Related to Career Maturity

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Running head: Self-Appraisal

Abstract

Self-appraisal is a major component in career maturity as defined by John Crites. Forty-six men and women completed the Career Maturity Inventory (CMI) (Crites, 1973a), the Temperament and Values Inventory (TVI) (Johansson & Webber, 1976), and rating forms which required self-estimates of the characteristics purportedly measured by the TVI. Self-appraisal was defined in terms of difference scores between self-estimates and TVI scale scores. Pearson correlations of the difference scores and each of the six CMI scales (with coefficients corrected for attenuation by measurement error) provided strong support for the proposition that self-appraisal is a function of career maturity.

Self-Appraisal of Career-Relevant Temperaments and Values as Related to Career Maturity

Self-appraisal is a major component of Crites's model of career maturity. As one of five variables considered to be career choice competencies, self-appraisal is measured by the Competence Test (CT) of the Career Maturity Inventory (CMI) (Crites, 1973a). The Self-Appraisal scale of the CMI asks the client to appraise the career-relevant capabilities of hypothetical persons described in each item. The client chooses what he or she judges to be the best solutions to the described adjustment problems; it is assumed that individuals who accurately appraise the hypothetical situations can accurately appraise their own career-relevant characteristics. Crites judges the Self-Appraisal scale of the CMI to be superior as a measure of self-appraisal to the traditional measure, the comparison of individuals' self-estimated test scores with their obtained scores, because using the Self-Appraisal scale avoids the need for psychometric data and the use of difference scores (Crites, 1973c).

The present investigators sought to compare Crites's measure of self-appraisal to a variation of the traditional measure. The variation of the traditional measure used career-relevant temperaments and values, as opposed to interests and aptitudes, as the variables to be estimated and tested. Rather than use simple difference scores, whose unreliability has been justly criticized by Crites (1973c), the reliability of the obtained difference scores was estimated in order to correct the correlation of CMI scales with the difference scores for the measurement error inherent in self-estimates. It was predicted that if self-appraisal, as defined as the difference between estimated and obtained scores on the Temperament and Values Inventory (TVI) (Johansson & Webber, 1976),

were, in fact, a major component of career maturity, as defined by scores on the CMI scales, then corrected correlations between difference scores and CMI scale scores would be statistically significant and negative.

Method

Subjects

Forty-seven individuals (27 women and 20 men) volunteered to participate in the study. The youngest participant was 16, the oldest 48 (M=21.5). Most of the participants were students (1 pre-college, 9 freshmen in college, 9 sophomores, 13 juniors, 10 seniors, 3 graduate students, and 2 non-students). All but one volunteer (a sophomore woman, age 22) completed all instruments; the reported results of the study are based on a sample of 46.

Instruments

The CMI was developed to assess readiness for career decision-making, relative to age and educational attainment. The Attitude Scale (AS) yields one score based on 50 items which purport to measure five factors related to the choice process: involvement, orientation, independence, preference for factors, and conceptual understanding. Crites (1973c) reports internal consistency of .74 and test-retest reliability of .71 for the CMI-AS. The CMI-CT consists of five subtests of 20 items each which purport to measure self-appraisal (SA), occupational information (OI), goal selection (GS), planning (P), and problem-solving (PS). Crites (1973c) reports internal consistency coefficients ranging from .72 to .90 for the CMI-CT subtests.

The TVI was developed to assess individual differences in temperament and work values in order to complement information concerning vocational interests and abilities. There are seven bipolar temperament scales (Routine-Flexible,

Quiet-Active, Consistent-Changeable, Reticent-Persuasive, Attentive-Distractible, Serious-Cheerful, and Reserved-Sociable), which are assessed using items of the following sort: "Once I start a task I prefer to keep working on it until it is finished." (True or False). There are also seven values scales (Social Recognition, Managerial/Sales Benefits, Leadership, Social Service, Task Specificity, Philosophical Curiosity, and Work Independence), which are assessed using items such as, "To be looked up to by my co-workers" (Very Important, Important, Neutral, Unimportant, Very Unimportant). Johansson (1977) reports median internal consistency estimates for the TVI ranging from .79 to .85 and median test-retest reliability coefficients ranging from .87 to .89.

The investigators developed self-estimate materials based upon the 14 TVI scales. Subjects were presented 14 scales (including definitions of the value scales) and given the following instructions:

> For each adjective pair (or reward value) describe yourself by marking the appropriate dot with an X. Describe yourself in terms of how you compare with people in general. If you are much like the average person, mark one of the dots in the middle of the scale. If you are more like the adjective on the left (If you place more importance on a particular reward value than most people), mark one of the dots to the left of center according to how extreme is the resemblance (mark one of the dots to the right of center according to how much more important this reward value is to you). If you are more like the adjective on the right than the average person (If you place less importance on a particular reward value than most people), mark one of the dots to the right of center according to how extreme is the resemblance (mark one of the dots to the

left of center according to how much less important this reward value is to you).

The estimated scores based on the participants' comparison of themselves to the average person or to most people were translated into standard scores which corresponded to the marked position on each scale. Thus, the self-estimates were directly comparable to the standard scores reported on the TVI.

Results

Sample means and standard deviations for CMI scale scores are reported in Table 1. The average AS score of the sample is in the 43rd percentile of Grade 13 norms (Crites, 1973b, p. 39). When compared to the Grade 12 norms, the sample achieved mean scores in the 52nd-66th percentile for SA, 78th-91st percentile for OI, 51st-64th percentile for GS, 59th-69th percentile for P, and 66th-76th percentile for PS (Crites, 1973b, pp. 48-52).

Insert Table 1 about here.

Sample means and standard deviations for self-estimates and TVI scale scores for each of the seven temperaments and seven reward values are reported in Table 2. In general, the participants' self-ratings were somewhat more extreme and more scattered than were their TVI results. However, the zero-order correlations between self-estimates and scale scores (see Table 3) were significant and positive for five of the seven personality characteristics or temperments and for all seven of the reward values.

Insert Table 2 about here.

Table 3 reports the correlations of the difference between estimated and obtained TVI scores and CMI scores, corrected for attenuation by measurement error. The table also reports uncorrected correlations of the difference between estimated and obtained TVI scores and CMI scores, correlations of the estimated and obtained TVI scores, and reliability coefficients used in the calculations of the corrected correlations. The coefficient used for the reliability of the estimated scores was derived by averaging the internal consistency coefficients reported by Holland for Self-Estimate scores on the Self-Directed Search (Holland, 1979, p. 50). The coefficients of reliability for the TVI scales were derived by averaging coefficients for each sex and across three age groups for each TVI scale as reported by Johansson (1977, p. 24). The coefficients of reliability for the CMI are those reported by Crites (1973c, p. 14 and p. 33) for Grade 12 norms. The formula used to compute corrected correlations was $r' = r_{CMI:D}/\sqrt{r_D r_{CMI}}$, in which the reliability of the difference scores (r_D) was computed as follows: $$r_D = \frac{\left[(r_E + r_{TVI}) / 2\right] - r_{E:TVI}}{1 - r_{E:TVI}}$$ (Nunnally, 1978).

Insert Table 3 about here.

As reported in Table 3, all six CMI scales are correlated with several of the difference scores between estimated and obtained TVI scores at a statistically significant level and in a negative direction as predicted. For those significant and negative coefficients, it may be concluded that higher CMI scores are associated with smaller difference scores or closer estimates of obtained TVI scores. The

number of such coefficients is greatest for the Attitude Scale of the CMI and for the Self-Appraisal subtest of the CMI-CT. All six CMI scales are correlated with at least one difference score between estimated and obtained TVI scores at a statistically significant level and in a positive direction against prediction. The number of such coefficients is greatest for the Self-Appraisal subtest of the CMI-CT. The majority of coefficients are nonsignificant.

Discussion

The data provide some support for the proposition that self-appraisal is a component of career maturity. The participants' estimates of their temperaments and values corresponded reasonably well to their measured temperaments and values; all but two of the 14 correlation coefficients for estimated versus obtained TVI scale scores were significant and positive. Better estimates, as reflected by lower difference scores, corresponded reasonably well to higher measured career maturity, especially as measured by the Attitude Scale and the Self-Appraisal subtest of the CMI. The Attitude Scale was superior to the Self-Appraisal subtest in its correspondence to better self-appraisal of temperaments and values, both in terms of number of predicted significant and negative correlations (eight as compared to five) and in terms of number of unpredicted significant and positive correlations (one as compared to three). The item content of the Self-Appraisal subtest emphasizes ability rather than personality characteristics and work values; the item content of the Attitude Scale may more closely overlap such characteristics, thus accounting for the greater correlation with self-appraisal as defined in the present investigation.

Data concerning the applicability of the CMI as a measure of career maturity for adults have not been widely reported. Although there are advantages in

including a simple measure of self-appraisal as part of a career maturity test, as in the case of the Self-Appraisal subtest of the CMI, there may be other advantages in using a more direct measure of self-appraisal with populations for whom the CMI may be inappropriate. In counseling college students and other adults, the gathering of additional psychometric data in order to make such an assessment may be, in fact, worthwhile when the obtained data are complementary to the basic information of ability and interest. Taking the TVI after estimating one's scores may well be more interesting and involving to an adult than taking the CMI, whose items are geared to a younger group. Self-estimates and difference scores are not as reliable as scores on well-normed paper-and-pencil tests, but statistical corrections may be used. The results of the present investigation support the proposition that self-appraisal of career-relevant temperaments and values is related to career maturity and suggest that the traditional assessment method of comparing estimated and obtained scores is a valid approach.

Footnote

1. The authors acknowledge the statistical assistance rendered by Richard F. Haase, Ph.D.

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Table 1

Career Maturity Inventory (CMI) Scores: Means and Standard Deviations

CMI Scales	M	SD
Attitude	38.2	6.0
Self-Appraisal	15.6	2.0
Occupational Information	18.2	3.5
Goal Selection	15.4	3.7
Planning	15.5	3.7
Problem Solving	12.4	3.7

Table 2

Estimated and Obtained Temperament and Values Inventory (TVI) Scores: Means and Standard Deviations

	Estimated		Obtained	
TVI Scales	M	SD	M	SD
Routine-Flexible	60.6	10.8	49.9	9.8
Quiet-Active	62.2	12.5	51.0	9.1
Attentive-Distractible	44.4	12.6	52.7	10.1
Serious-Cheerful	57.1	12.2	51.0	9.5
Consistent-Changeable	50.5	13.6	49.9	9.8
Reserved-Sociable	59.9	14.2	50.6	9.8
Reticent-Persuasive	58.9	10.5	51.5	10.2
Social Recognition	53.0	13.7	53.3	9.3
Managerial/Sales Benefits	48.3	15.1	51.3	9.1
Leadership	56.9	13.0	53.0	8.6
Social Service	56.1	15.8	48.4	10.1
Task Specificity	59.0	12.1	49.3	9.3
Philosophical Curiosity	60.9	14.0	51.7	9.7
Work Independence	65.7	10.5	49.8	8.3

Table 3

Corrected Correlations (r') of Difference Scores and CMI Scores

					CMI-AS:D		CMI-SA:D		CMI-OA:D	
r_E	r_{TVI}	$r_{E:TVI}$	r_D	r_{CMI}	r	r'	r	r'	r	r'
.66	RF .75	.31*	.57	AS .75	RF .01	.02	RF .16	.25*	RF .02	.03
	QA .81	.23	.66	SA .73	QA -.21	-.30	QA .02	.03	QA .20	.26*
	AD .83	.16	.70	OA .88	AD -.26*	-.36**	AD .06	.08	AD .11	.14
	SC .82	.29*	.63	GS .90	SC -.52***	-.76***	SC -.13	-.19	SC -.19	-.26*
	CC .85	.39**	.60	P .90	CC -.31*	-.46**	CC -.24*	-.36**	CC -.03	-.04
	RS .75	.33*	.56	PS .80	RS -.30*	-.46**	RS -.25*	-.39**	RS -.13	-.19
	RP .79	.43***	.52		RP -.37**	-.59***	RP .01	.02	RP .15	.22
	SR .86	.41***	.59		SR -.30*	-.45***	SR -.01	-.02	SR .06	.08
	MB .80	.45***	.51		MB -.28*	-.45***	MB -.10	-.16	MB .10	.15
	L .81	.53***	.44		L -.01	-.02	L -.36**	-.64***	L -.15	-.24
	SS .90	.54***	.52		SS -.07	-.11	SS .13	.26*	SS -.22	-.33*
	TS .81	.29*	.63		TS .13	.19	TS .22	.32*	TS .18	.24
	PC .85	.47***	.54		PC .11	.17	PC -.11	-.18	PC -.15	-.22
	WI .82	.33*	.61		WI .27*	.40***	WI -.19	-.28*	WI -.11	-.15

Table 3, continued

CMI-GS:D			CMI- P:D			CMI-PS:D		
	r	r'		r	r'		r	r'
RF	.16	.22	RF	-.10	-.14	RF	-.15	-.22
QA	.20	.26*	QA	-.11	-.14	QA	-.10	-.14
AD	.13	.16	AD	.09	.11	AD	-.09	-.12
SC	-.15	-.20	SC	-.09	-.05	SC	-.08	-.11
CC	-.20	-.27*	CC	-.01	-.01	CC	-.00	-.00
RS	-.35*	-.49***	RS	-.22	-.31*	RS	-.36**	-.54***
RP	-.02	-.03	RP	.21	.31*	RP	.15	.23
SR	.10	.14	SR	.08	.11	SR	-.17	-.25*
MB	-.17	-.25	MB	.11	.16	MB	.02	.03
L	-.27*	-.43***	L	-.11	-.17	L	-.26*	-.44***
SS	-.13	-.19	SS	.11	.16	SS	.07	.11
TS	.35**	.46***	TS	.10	.13	TS	-.00	-.00
PC	-.14	-.20	PC	-.08	-.11	PC	-.01	-.02
WI	.00	.00	WI	-.20	-.27*	WI	-.17	-.24