

THE USE OF SELF-ESTIMATED APTITUDES IN EMPLOYMENT COUNSELLING

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Abstract

A study designed to determine if adults seeking employment under-estimated their aptitudes revealed that, although correlated, there are significant differences between self-estimated and measured aptitudes. It is concluded that the discrepancies between measured aptitudes and self-estimated aptitudes, which are a manifestation of one's self-concept, can be effectively challenged with the outcome being greater congruence between the person's self-structure and experience. The Rogerian model of the total personality is used to illustrate the potential of self-estimates when used in employment counselling to help clients reduce the state of stress often associated with employment seeking.

Vocational guidance has, since the days of Parsons (1909), been concerned to a greater or lesser degree with self-understanding and self-acceptance. This, and Super's (1951) statement that vocational guidance is

the process of helping a person to develop and accept an integrated and adequate picture of himself and his role in the world of work, to test this concept against reality, and to convert it into a reality, with satisfaction to himself and benefit to society. (p. 92)

prompted Herr and Cramer (1972) to suggest that vocational guidance is not only self-concept oriented but involves both process and content. While they suggest that the term vocational guidance implies a "fusion of educational and vocational concerns for assisting students to locate themselves vocationally in the future . . ." (p. 3), the use of the term employment counselling is more appropriate in the context of Canada Employment Centres (CECs) as it refers to a dynamic interchange between individuals, a constantly changing, ongoing, and evolving communication whose objective is the satisfactory adjustment of the individual to the world of work (Employment and Immigration Commission, 1977). In order to use a counselling tool, such as an aptitude test, effectively in employment counselling, a counsellor must not only know how to use the tool and how to interpret the results obtained but also how the results can affect the client.

To this end, self-study training manuals (Employment and Immigration Commission, 1977a, 1977b) were developed for the purpose of providing instruction in the procedures for properly interpreting the Commission's aptitude tests. In their training, counsellors are exposed to three strategies they could use in their *General Aptitude*

Test Battery (GATB) interpretation interviews. (French-speaking clients and counsellors use the *Batterie générale de tests d'aptitudes* [BGTA]). The first two, Descriptive Statistics — levels, means, percentile ranks — and Normal Curve, are primarily statistically or psychometrically based. The third strategy, which involves a comparison of self-estimated with measured aptitude, is not. In fact, Goldman (1961) reports that numerous attempts to establish the extent to which counselling is followed by greater agreement between self-ratings and test scores have generally been inconclusive (p. 347).

An examination of many such studies reveals that the subjects involved were college freshmen (Berdie, 1954; Torrance, 1954), prospective college freshmen (Robertson, 1958, 1959), high school students (Froehlich, 1957; Froehlich & Moser, 1954; Kelso, Holland, & Gottfredson, 1977; Lallas, 1956), or introductory psychology students at university (DeNisi & Shaw, 1977). By contrast, Froehlich (1954) used adult evening school students as subjects. Only three of these studies (DeNisi & Shaw, 1977; Froehlich & Moser, 1954; Kelso et al., 1977) concerned themselves with aptitudes. No one study involved the aptitudes of adults who are counted as members of the work force.

It is the purpose of this study to investigate the extent to which employment centre clients' estimates of aptitude are representative of their measured aptitudes and, secondly, to demonstrate the utility of self-estimates in employment counselling.

Method

Subjects

In January, 1980 all records submitted under the Certification in Testing program of the

Employment and Immigration Commission were examined to identify which of the three strategies had been chosen by counsellors in interpreting GATB results to their respective clients. Of the 691 records examined, 391 involved female subjects while 300 involved male subjects. The mean age of all subjects was 27.3 years (mode = 22 years) and their education ranged from Grade 8 through university graduation at the bachelor's level. All subjects were registered as clients in employment centres across Canada. For the purposes of this study, counsellor and client anonymity is assured.

Apparatus

On what is known as the GATB/BGTA Self-Estimate Sheet, clients were asked to estimate each of the nine GATB/BGTA aptitudes according to their respective perception of their aptitude. This estimating could be done using percentile ranks, standards scores, or levels as reference points, and should include a range of perceived aptitude. These estimates could be introduced prior to aptitude testing, as part of the interpretation, or in communicating subtest results. In any case, each client would have estimated their respective aptitudes and have a completed GATB/BGTA record.

Procedure

The information gleaned from the 691 records was compiled by province according to the frequency of use of each of the three strategies. Once completed, all records pertaining to the use of self-estimates were separated for further analysis.

This analysis involved first identifying the score associated with the middle of the self-estimate range on each of the nine aptitudes and then pairing the resulting estimated score with its measured counterpart. Of the possible 152 records, 39 were found to have missing data and were discarded. A correlation matrix (Pearson's r) was prepared between the nine estimated and nine measured aptitudes. This was followed by a differences of means t -test on each aptitude.

Results

Examination of Table 1 will reveal that the self-estimate strategy is generally the least popular among the three available. The one notable exception is Quebec, where the strategy involving descriptive statistics and group norms is the least frequently chosen. On the whole, it is the descriptive statistics strategy which is chosen most frequently, followed by the normal curve and self-estimates strategies.

Correlations between self-estimated and measured aptitudes are reported in Table 2. It will be

noted that seven of the nine correlations are significant ($p < .01$) while one is significant at the $p < .05$ level. Self-estimates on Motor Coordination (K) are not significantly correlated with measured aptitude.

The results of the t -tests performed on the self-estimated and measured means are also reported in Table 2. It can be seen that the differences in means are significant on all nine aptitudes ($p < .01$). Moreover, self-estimated aptitudes are consistently underestimated.

Discussion

The results reported for Quebec in Table 1 are particularly interesting in that they reveal an overwhelming rejection of the strategy which involves norms, percentile ranks, and means. Granted, both counsellors and clients would have been working with the French-language aptitude test, the *Batterie générale de test d'aptitudes* (BGTA), but this could not account for the extent of the rejection. It would be plausible for one to conclude that, although some effort was made to ensure the BGTA and the GATB assessed aptitude with the same accuracy, counsellors in Quebec generally view the BGTA as a weak instrument. If this is the case, it is indeed fortunate that corrective action to improve the BGTA has already been initiated.

Obtaining results which show that adults, who are considered to be members of the work force, consistently underestimate their aptitudes suggest that they are similar to others, whether they be high school, college, or university students. Moreover, finding significant correlations between estimated and measured aptitudes on all aptitudes except Motor Coordination (K) would suggest that a person's self-esteem may be a factor in his or her underestimation of ability. In fact, Regan, Gosselink, Hubsch, and Ulsh (1975) suggest that "self-derogation by actors [subjects] as [is] a defense against possible loss of self-esteem" (p. 295). They also report that one of the most popular notions in psychology is that people need high self-esteem, and point to Rogers as a proponent of this position.

In Rogers' (1951) conceptualization, the total personality of a person is a composite of self-structure and experience. He goes on to define self-structure as being the ensemble of concepts one has about one's self. This self-concept includes "the patterned perceptions of the individual's characteristics and relationships, together with the values associated with these" (p. 525). Experience is described as being "the immediate field of sensory and visceral experience. . . . It represents all that is experienced by the individual, through all the sense modalities. It is a fluid and changing field" (p. 525). The total personality, in a state of

Table I
Frequency of Use of Each Strategy by Province

Province	Descriptive statistics		Normal curve		Self-estimates		Total
	<u>f</u>	%	<u>f</u>	%	<u>f</u>	%	
Newfoundland	23	67.6	8	23.5	3	8.8	34
Nova Scotia	3	50.0	2	33.3	1	16.6	6
New Brunswick	13	35.0	21	56.8	3	8.1	37
Prince Edward Is.	2	50.0	2	50.0	-	-	4
Quebec	17	18.1	38	40.4	39	41.5	94
Ontario	141	43.9	126	39.3	54	16.8	321
Manitoba	20	62.5	5	15.6	7	21.9	32
Saskatchewan	20	48.8	10	24.4	11	26.8	41
Alberta	27	36.0	27	36.0	21	28.0	75
British Columbia	20	42.6	14	29.8	13	27.7	47
Total	286	41.4	253	36.6	152	22.0	691

psychological tension or stress, may be represented graphically as in Figure 1.

Here Area I is that portion of the concept of self which is congruent with all elements supplied by the sensory and visceral experience; Area II represents experience which has been distorted in its symbolization and is perceived as part of the individual's own experience when in reality it stems from parents or others; Area III is the domain in which all those experiences which are inconsistent with the self-concept are found.

The letters in Figure 1, as in Figure 2 to be introduced later, are elements of experience. If we

were to consider Element (a) "I am utterly inadequate in dealing with mechanical things . . ." (Rogers, 1951, p. 526) from a counselling perspective, the real experience could probably be identified as "My parents regarded me as inadequate in the mechanical field." This impression was distorted and was included in the self-concept as "I am inadequate in the mechanical field." Assuming Element (b) to be "I experience failure in dealing with mechanical contrivances" (Rogers, 1951, p. 526), it can be seen that this has the characteristic of a direct experience. This experience and others like it form

Table 2
Correlations and *t*-tests Between
Estimated and Measured GATB/BGTA Aptitudes

Aptitude	<u>xe</u>	<u>xm</u>	<u>df</u>	Pooled <u>σ</u>	<u>t</u>	<u>p</u>	<u>r</u>	<u>p</u>
Intelligence (G)	106.7	118.7	112	13.25	9.659	.01	.4056	.01
Verbal Aptitude (V)	105.5	116.3	112	13.40	8.552	.01	.5363	.01
Numerical Aptitude (N)	101.8	113.6	112	14.61	8.570	.01	.4955	.01
Spatial Aptitude (S)	100.4	115.4	112	15.19	10.520	.01	.4460	.01
Form Perception (P)	105.9	121.8	112	17.58	9.589	.01	.2333	.05
Clerical Perception (Q)	107.9	127.2	112	20.38	10.070	.01	.3203	.01
Motor Coordination (K)	100.3	112.9	112	19.61	6.820	.01	.1891	NS
Finger Dexterity (F)	98.6	106.6	112	20.31	4.225	.01	.4139	.01
Manual Dexterity (M)	103.1	113.9	112	19.12	6.013	.01	.4938	.01

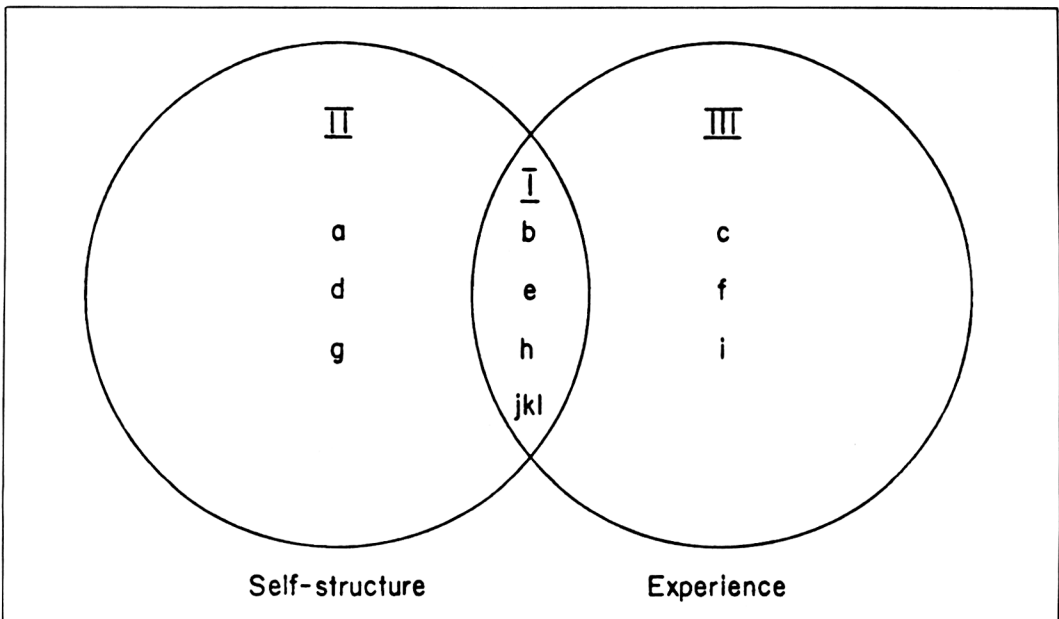


Figure 1.
Graphic representation of the total personality in a state of stress.

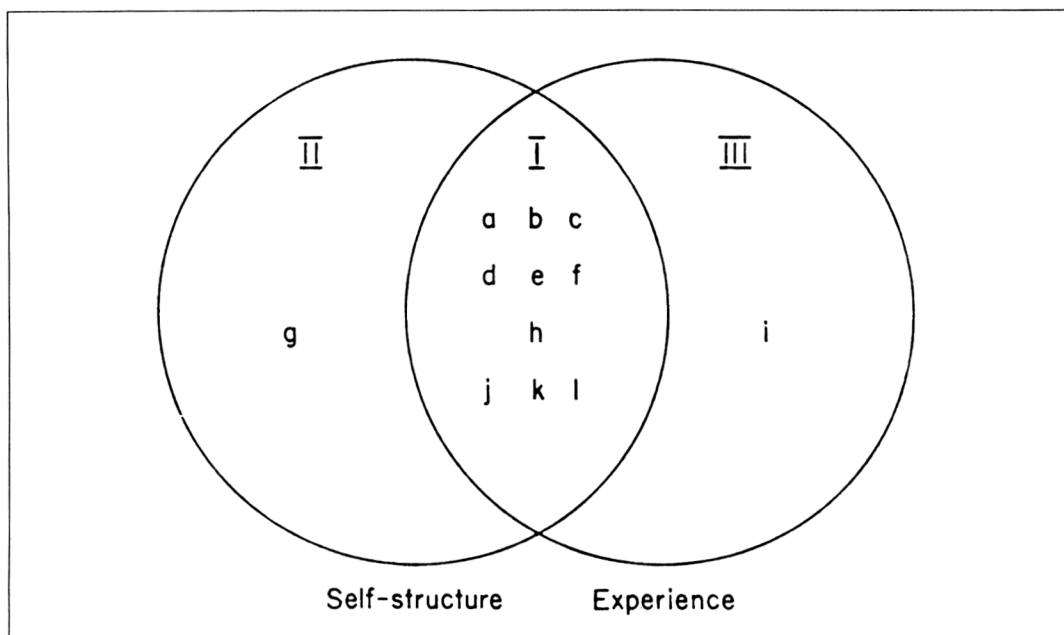


Figure 2.
Graphic representation of the total personality in a low stress state after intervention.

part of the self-structure and appear in Area I because they are consistent with it. If Element (c) were "Experience of succeeding with a difficult mechanical operation" (Rogers, 1951, p. 527), the experience is denied because it is inconsistent with the self-concept. Such statements as "I was lucky" appear as justification for success and to prevent additional stress. The remaining letters represent other elements Rogers (1951) uses to describe aspects of the total personality.

It is clear that clients' perceptions (self-estimates) of aptitude are a manifestation of the element of their concept of self. Moreover, finding that employment centre clients tend to underestimate their aptitude performance is important, since it is consistent with what the model suggests would happen with persons in a state of stress, as might be the case for those seeking employment. The underestimations are a manifestation of a distortion of their real experiences with peers, parents, or others, and any success in previous employment would be denied. Employment counselling in this context should not focus on the successes, but must concentrate on disputing or challenging the distorted self-concept. This can be done by comparing the client's self-estimated aptitudes with measured aptitudes. The result would be an altered personality (Figure 2) where Elements (a), (b), and (c) could be indicated as:

- (a) I realize my parents felt I was inadequate in mechanical things, and that this had a negative value for them.
- (b) My own experience confirms this evaluation in a number of ways.
- (c) But I do have some competence in this field. (Rogers, 1951, p. 530).

It follows that the objective of any intervention would be to make the self-structure more congruent with experience, a process which would increase the number of elements found in Area I. The configuration shown in Figure 2 is one in which little stress is experienced and results after successful intervention. It also shows the change in the size and contents of Area I. This model, although traditionally considered applicable only to counselling and psychotherapy for personal problems, has obvious utility in employment counselling.

The shifting of elements of the total personality from one area to another in which greater congruence of the self-structure and experience in the world of work occurs, signals a successful employment counselling intervention. It follows that test interpretation using self-estimates can be a powerful counselling technique for use in employment centers.

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