

Utility of Facet Descriptions in the Prediction of Global Job Satisfaction

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In this study, the immediate utility of facet descriptions was assessed over several global criteria directly and indirectly related to global job satisfaction. Nearly 20 000 subjects from a large military organization were used. Meaningful and significant correlations of between 0.20 to 0.43 were obtained. Convergent and divergent validity was found since facet descriptions were more predictive of global criteria directly related to global job satisfaction (Enjoyment of the job and Organizational enjoyment) than indirect measures of job satisfaction (Enjoyment of off-duty life, Likelihood of leaving the service early and Likelihood of further service). Correlations were also generally consistent over time, and the factor structure was interpretable in a straightforward manner. It was concluded that facet descriptions seem to be simple and adequate measures of overall job satisfaction.

Keywords: Organizational assessment, job satisfaction, facet analysis, test validity.

Introduction

Organizations are increasingly concerned with collecting information about their employees' perceptions of their work place. One important measure is global job satisfaction. This is because global job satisfaction is related to many important organizational outcomes such as reduced staff turnover, reduced absenteeism, reduced number of complaints and grievances, reduced work variability, improved speed of learning, improved life satisfaction and improved physical and mental well-being of personnel (Locke, 1976).

According to Locke (1976), *global job satisfaction* is directly related to satisfaction with the facets of job. In particular, it seems that the importance of a facet does not moderate facet satisfaction in the prediction of global job satisfaction (Mobley & Locke, 1970). Empirical studies, more recently using moderated regression (Zedeck, 1971), have generally yielded results in support of Mobley and Locke (Blood, 1971; Ewen, 1967; McFarlin & Rice, 1992; Rice, Gentile, & McFarlin, 1991). All this evidence suggests that workers calculate global job satisfaction using ratings of facet satisfaction that are already implicitly weighted with facet importance, thus making further ratings of facet importance redundant.

Research into *facet satisfaction* is often directed at the interaction between *facet description*, which

is an affect-free assessment of the facet, and *facet importance*, which is the subjective evaluation of the importance of the facet. Locke (1976) suggested that facet importance moderates facet description, and subsequent research has tended to support such a view in the prediction of facet satisfaction (Butler, 1983; Locke, 1976; McFarlin & Rice, 1991; McFarlin & Rice, 1992; Pulakos & Schmitt, 1983; Rice, Gentile, & McFarlin, 1991; Rice, Markus, Moyer, & McFarlin, 1991; Rice, McFarlin, & Bennett, 1989; Wanous & Lawler, 1972).

This extensive literature, however, has *not* addressed the issue of how *facet description* is linked to *global job satisfaction*. To moderate all facet descriptions by facet importance, and then combine these facet satisfaction assessments into a single assessment of overall job satisfaction, is likely to be beyond the cognitive capabilities of most workers. It is more likely that a model involving the combination of facet descriptions will be an adequate predictor of overall satisfaction because it is *simple* and thus *realistic*. The utility of predicting *global job satisfaction* and related global organizational measures from *facet descriptions* remains untested. Facet description may be an adequate predictor of global job satisfaction.

The first aim of this study is to determine the utility of the simple facet description model in the prediction of direct measures of global job satisfaction by using samples of workers from a large UK military organization. The following issues are ad-

dressed to fulfill this aim: Is a facet description model satisfactorily correlated with overall job satisfaction and organizational satisfaction? Are the correlations consistent over time? Is the factor structure of the facet descriptions satisfactory? The second aim of the study determines the convergent and discriminant validity of facet descriptions in the prediction of other overall dependent variables indirectly related to global job satisfaction, namely, turnover (Clegg, 1983; Jackofsky & Peters, 1983; Ward, 1988; Ward, 1989), life satisfaction (Steiner & Truxillo, 1989; Tait, Padgett & Baldwin, 1989), and organizational satisfaction. Convergent validity is shown if facet descriptions are satisfactorily correlated with global job satisfaction variables (Enjoyment of the job and Enjoyment of the organization); discriminant validity is shown if facet descriptions are less highly correlated with global variables less directly related to job satisfaction (Likelihood of further service, Likelihood of premature voluntary retirement and Enjoyment of off-duty life).

Method

Subjects

Randomly selected subjects from a large military organization were sent questionnaires at quarterly intervals between 1988 and 1993. The response rate varied, but was approximately 75% (average number returned in each quarter was 959). In total, 6003 Officers (mean age = 35 years, SD = 7.2, 15% served outside of the United Kingdom) and 13,721 Ranks (i. e., non-Officers; mean age = 27 years, SD = 6.5, 22% served outside the United Kingdom) were available for analysis over the whole time period.

Satisfaction Measures

Measurement of Facet Description

A total of 26 facets of the job were rated using a 1–5 rating scale in terms of how possible they were to achieve. The categories of each scale were: 1 = No possibility at all; 2 = Less than average possibility; 3 = Average possibility; 4 = Better than average possibility; 5 = Very good possibility. The subjects were asked the following questions: “How possible is it for you to achieve . . .” (followed by the facet). The facets were as follows: (1) Adequate job security; (2) Work under consistent and intelligent personnel policies; (3) Have a say in what happens to you; (4)

Feel that you are accomplishing something; (5) Do a great deal of traveling; (6) Become proficient in specialized type of work; (7) Be in a competitive situation; (8) Obtain a good salary; (9) Have a definite work schedule; (10) Settle down in a certain area; (11) Be promoted on the basis of ability; (12) Advance at a fairly rapid rate; (13) Spend a lot of time with your family; (14) Be able to retire at an early age; (15) Have competent supervisors; (16) Make a lot of money; (17) Be given recognition for work well done; (18) Fly or continue flying; (19) Do work which your spouse and family can be proud of; (20) Have prestige or social status; (21) Keep very busy; (22) Variety in job activities; (23) Achieve leadership in your field; (24) Have access to and be able to participate in a wide range of sporting and adventurous activities; (25) Have a say regarding postings; (26) Develop further skills.

In recent years, facet description has often been operationalized as a single variable representing a (have-want) discrepancy or as the difference between the two variables separately (McFarlin & Rice, 1991; McFarlin & Rice, 1992; Rice, McFarlin & Bennett, 1989). Facet description can however also be measured as a direct report of facet amount. Rice, Gentile, and McFarlin (1991) believe that this is conceptually closer to the idea of an affect-free perception than the two other methods. The question “How possible is it for you to achieve . . .” is therefore *one variation* of the preferred *direct* method of measuring facet description. This present-tense direct measure also overcomes the well-known problems associated with discrepancy calculations. Despite the “seductive face validity” of simple discrepancy models (Johns, 1981, p. 443), they have been discredited on theoretical and statistical grounds (Cronbach & Furby, 1970; Evans & Ondrack, 1991; Johns, 1981; Wall & Payne, 1973).

Measurement of Dependent Variables

The following dependent variables were also rated: (1) How much are you enjoying your present job?; (2) How much are you enjoying your off-duty (social, recreational, sporting) life? (3) To date, how much have you enjoyed your life in the (name of organization)? The above scales were rated with categories labeled as follows: 1 = Not very much; 2 = Not at all; 3 = A little; 4 = Quite a lot; 5 = A great deal. (4) Intention of further service with the categories 1 = No; 2 = Perhaps; 3 = Yes; (5) Intention of premature voluntary retirement.

For officers, the mean of Enjoyment of the job was 4.0 (SD = .98); the mean of Enjoyment of off-

duty life was 4.0 (SD = .84); the mean of Enjoyment of the organization was 4.4 (SD = .60); the mean of Intention of further service was 2.0 (SD = .67); and the mean of Intention of premature voluntary retirement was 2.6 (SD = .59).

For ranks, the mean of Enjoyment of the job was 3.5 (SD = 1.11); the mean of Enjoyment of off-duty life was: 4.2 (SD = 0.82); the mean of Enjoyment of the organization was 4.1 (SD = 0.69); the mean of Intention of further service was 2.1 (SD = 0.77); and the mean of Intention of premature voluntary retirement was 2.5 (.65).

Results

Dimensionality of the Facet Description Model

The 26 facet descriptions were correlated against each of the global criteria. A total of 22 facets had an average correlation of 0.10 or above and 10 facets had average correlations of 0.15 and above. An overall model of facet description was calculated as a *simple arithmetic average* of the relevant 10, 22 and 26 facets. A simple arithmetic average was regarded as being at least as robust as more complex linear or non-linear models in terms of having stability over time. The utility of the 10 and 22 facet models was little different from the 26 facet model (Table 1). This might be seen as a surprising result since higher reliability is likely with a higher number of facets included in the model. However, higher reliability does not necessarily lead to higher validity if additional variables do not add extra additional predictive variation.

Although our results suggested that the 10-facet model was the most economical, principal components factor analysis with VARIMAX rotation was not easy to interpret. In contrast, the 22-facet model provided a solution that was readily interpretable (Table 2). The first two factors explained 37% of the variance, and the first six factors had eigenvalues above 1.0 and explained 57.5% of the variance. As illustrated in Table 1, for all the subjects (sample size of just under 20,000 in total), the correlation of the 22 facet model with the global criteria varied between 0.20 and 0.43. The facet description models were more highly correlated with Enjoyment of the job and Enjoyment of the organization than Enjoyment of off-duty life, Likelihood of premature voluntary retirement and Likelihood of further service in the organization.

Consistency of the Facet Description Model Across Criteria

The correlations between the overall facet description model of satisfaction (i. e., the average of the 22-facet descriptions) against the criteria for each quarter in time are shown in Table 3. Most of the correlations are significant. Moreover, there are similar differences in the size of the correlations with different criteria to those reported from the data as a whole (Table 1), although they are relatively consistent across time.

Discussion

Dimensionality of the Facet Description Model

The factor analytical solution of the most predictive 22 facets of the job suggest that the facet description model has underlying factors related to (a) Achievement and prestige; (b) Career progression; (c) Structured work schedule; (d) Personal development; (e) Locus of control; and (f) Extrinsic rewards. The first two factors explain 37% of the variance within the dataset and are thus clearly the most important. This suggests that variability in facet descriptions is highly related to the status derived from the job and the likely improvement in status in the future. The two- or six-factor structure indicates that facet descriptions can be investigated at the factor level as opposed to the facet level, and that there are only a small number of independent constructs that may be used by employees in this military organization to describe facet description. Whichever solution is chosen, the straightforward interpretation indicates that the facet description model has satisfactory underlying dimensionality.

A General Model of Job Satisfaction

The facet description model of job satisfaction was significantly and meaningfully correlated to overall job satisfaction and related global variables. This suggests that subjects do not need to follow complex heuristics in calculating overall job satisfaction because facet description on its own would appear to be a good predictor of overall job satisfaction and other related global variables. These results may be a first step towards suggesting that Locke's (1976) more complex model of job satisfaction, in which facet description is moderated by the effect of facet

Table 1. Correlations of the 22 and the 10 facet description model of job satisfaction against each of the five criteria for all subjects over the whole time period.

	ENJJOB	ENJOD	ENJORG	PVR	FURSERV
JSA26	.43*	.21*	.41*	.20*	.24*
JSA22	.43*	.22*	.41*	.20*	.24*
JSA10	.46*	.20*	.42*	.20*	.24*

* = $p < 0.01$, $N \approx 20,000$, depending on missing data

JSA26 = 26-facet description model of job satisfaction

JSA22 = 22-facet description model of job satisfaction

JSA10 = 10-facet description model of job satisfaction

ENJJOB = Amount subjects enjoy the job

ENJOD = Amount subjects enjoy off duty life

ENJORG = Amount subjects enjoy the organization

PVR = Likelihood of premature voluntary retirement

FURSERV = Likelihood of further service in the organization

Table 2. The underlying factor structure of the 22 facet model of job satisfaction.

	Factors					
	I	II	III	IV	V	VI
Percent of variance explained by each factor:	28.8%	8.2%	5.7%	5.2%	5.0%	4.6%
Cumulative percent of variance:	28.8%	37%	42.7%	47.9%	52.9%	57.5%
Factor 1: Achievement and prestige						
4. Feel like you are accomplishing something	.6					
7. Be in a competitive situation	.4					
19. Work spouse can be proud of	.6					
20. Prestige and social status	.5					
21. Keep busy	.7					
22. Variety of job activities	.6					
23. Achieve leadership in your field	.5	.5				
Factor 2: Career progression						
11. Promotion on the basis of ability		.8				
12. Advance at a rapid rate		.8				
17. Be given recognition for work well done		.4				
23. Achieve leadership in your field	.5	.5				
Factor 3: Structured work schedule						
2. Work under intelligent work policies			.5			
5. Do traveling			-.4	.5		
9. Definite work schedule			.7			
13. Spend time with family			.7			
15. Have competent supervisors			.5			
Factor 4: Personal development						
5. Do traveling			-.4	.5		
6. Proficient in specialized type of work				.6		
7. Be in competitive situation				.4		
24. Access/Participate in sport				.7		
26. Develop further skills				.6		
Factor 5: Locus of control						
3. Have a say in what happens to you					.7	
25. Have a say regarding postings					.8	
Factor 6: Extrinsic rewards						
8. Obtain a good salary						.8
16. Make a lot of money						.8

A total of 6 factors had eigenvalues above 1.0. Factor loadings of above 0.4 are shown. Facets are grouped according to their factor loading. Note that when a facet loads on more than one factor, then it is included in the table more than once. Full facet names are described in the Method section.

Table 3. Correlations of the job satisfaction model with the criteria (1988–1993).

(a) Ranks		ENJJOB	ENJORG	ENJOD	PVR	FURSERV
Criteria	Quarter					
1988	3	.45**	.41**	.22**	.20**	.29**
	4	.45**	.45**	.25**	.25**	.27**
1989	1	.46**	.45**	.24**	.21**	.26**
	2	.41**	.44**	.22**	.21**	.23**
	3	.41**	.44**	.18**	.30**	.32**
1990	4	.41**	.37**	.18**	.22**	.29**
	1	.46**	.43**	.23**	.24**	.28**
	2	.46**	.37**	.21**	.21**	.24**
	3	.42**	.39**	.24**	.26**	.26**
1991	4	.44**	.38**	.27**	.25**	.33**
	1	.39**	.39**	.25**	.18**	.24**
	2	.40**	.38**	.26**	.18**	.27**
	3	.43**	.39**	.27**	.17**	.24**
1992	4	.47**	.35**	.20**	.16**	.23**
	1	.37**	.36**	.19**	.21**	.22**
	2	.39**	.39**	.22**	.15**	.22**
	3	.43**	.38**	.23**	.13**	.19**
1993	4	.38**	.34**	.25**	.15**	.19**
	1	.43**	.38**	.23**	.17**	.19**
	2	.44**	.41**	.26**	.19**	.24**
N ⁺		944–1147	890–1155	890–1157	889–1156	809–1128

(b) Officers		ENJJOB	ENJORG	ENJOD	PVR	FURSERV
Criteria	Quarter					
1988	3	.40**	.35**	.29**	.04	.29**
	4	.28**	.42**	.18**	.06	.27**
1989	1	.31**	.41**	.29**	.21**	.30**
	2	.41**	.37**	.20**	.12	.25**
	3	.27**	.31**	.29**	.16*	.18
	4	.42**	.33**	.30**	.31**	.26**
1990	1	.30**	.31**	.33**	.11	.26**
	2	.44**	.46**	.25**	.21**	.31**
	3	.33**	.41**	.25**	.24**	.36**
	4	.30**	.35**	.21**	.14*	.17
1991	1	.40**	.37**	.21**	.18*	.28*
	2	.16	.31**	.22**	.09	.22*
	3	.35**	.37**	.29**	.12*	.23*
	4	.42**	.33**	.32**	.12*	.25*
1992	1	.28**	.32**	.29**	.12*	.31*
	2	.29**	.35**	.34**	.15*	.13
	3	.31**	.37**	.21**	.11	.01
	4	.35**	.28**	.21**	.12*	.19*
1993	1	.37**	.37**	.26**	.08	.14
	2	.29**	.28**	.23**	.17*	.39**
N ⁺		212–313	212–314	209–314	208–311	90–223

The job satisfaction model was composed of ratings of achievement averaged over 22 facets
 Quarters (1, 2, 3, 4) = Results of survey sent out in February, May, August, November, respectively

N⁺ = Smallest and largest sample size over the quarters

ENJJOB = Amount subjects enjoy the job; ENJOD = Amount subjects enjoy off duty life; ENJORG = Amount subjects enjoy the organization; PVR = Likelihood of premature voluntary retirement from the organization; FURSERV = Likelihood of further service in the organization.

** = $p < 0.001$, * = $p < 0.05$

importance, is limited to the estimation of *facet satisfaction* only. When estimating *global satisfaction*, there may be little need to include the moderating effect of facet importance on facet description. A further study is however required to compare directly Locke's model with this simpler model to provide direct support for this possibility.

In general, the closer the criteria were related to immediate enjoyment of work, the better the utility of the model. Thus, facet descriptions were more able to predict Enjoyment of the job and Enjoyment of the organization than Enjoyment of off-duty life, Likelihood of further service and Likelihood of premature voluntary retirement. Higher correlations with global variables highly associated with global job satisfaction demonstrate the principles of convergent validity and lower correlations with global variables less highly related to overall job satisfaction demonstrate the principles of discriminant validity. Results suggesting that satisfaction at work is somewhat related to satisfaction outside of work is consistent with the notion of a spill-over effect between job satisfaction and life satisfaction (Steiner & Truxillo, 1989).

There was no evidence of any major variation in the correlations between the sum of the facet descriptions and the global variables over time. Concerning the variation that is present, there is no evidence of any pattern. It is safe to assume that the subjects tended to perceive the relevance of the facets to be the same over the whole time period. It appears, therefore, that the facet description model of job satisfaction has satisfactory longitudinal stability.

Limitations

This study aimed to show the utility of the facet description model of overall job satisfaction. It would have been useful to compare the utility of the *facet description* model with *facet satisfaction* measures in predicting overall satisfaction and other global variables. Further studies could also assess the differential utility between facet description models and models in which facet description is moderated by facet importance (Locke, 1976).

Summary

Interpretable factor structure, relatively high correlations with several global variables, convergent and discriminant validity, and stability over time for two different types of subject suggest unambiguously

that facet descriptions have strong utility in the indirect prediction of overall job satisfaction and related global variables.

It is suggested that this simple and straightforward model of facet description is likely to be extremely useful to many organizations who wish to be able to predict global job satisfaction and other variables related to job satisfaction in a relatively indirect manner using facet descriptions.

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