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Job Importance as a Moderator of the Relationship  
Between Job Satisfaction and Life Satisfaction

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Job Importance as a Moderator of the Relationship  
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Moderated regression analyses were used to assess the degree to which indirect indicators of job importance moderate the relationship between job satisfaction and life satisfaction. The 1971 Quality of American Life Survey and the 1972-1973 Quality of Employment Survey provided two large ( $N = 2164$  and  $N = 1496$ ) nationwide probability sample data sets for these secondary analyses. It was hypothesized that the strength of the job satisfaction-life satisfaction relationship is positively related to job importance. Contrary to this hypothesis, respondents for whom their job was expected to be more important did not have substantially stronger job satisfaction-life satisfaction relationships than respondents for whom their job was expected to be less important. The zero-order job satisfaction-life satisfaction correlations in both samples were stronger than expected ( $r = .48$  and  $r = .49$ ). Discussion focused on the conceptual implications of the failure to find substantial moderator effects. Locke's (1969) theory of the implicit role of importance in determining satisfaction was invoked to explain the obtained pattern of results.

Job satisfaction is an important indicator of the quality of work life and life satisfaction is an important indicator of the quality of life as a whole. Hence, the job satisfaction-life satisfaction relationship is an indicator of the more general relationship between quality of work life and quality of life as a whole. The strength of the job satisfaction-life satisfaction relationship has been interpreted as an indirect estimate of the contribution that quality of work life makes to judgments concerning the overall quality of life (e.g., Bailyn & Schein, 1976; Brayfield, Wells, & Strate, 1957; Payton-Miyasaki & Brayfield, 1976). According to this interpretation, the stronger the job satisfaction-life satisfaction relationship, the more important the contribution of job satisfaction to overall life satisfaction.

#### Previous Job Satisfaction-Life Satisfaction Research

Zero-order effects. Considerable research has examined the zero-order relationship between job satisfaction and life satisfaction. Rice, Near, and Hunt (1980) reviewed 23 studies reporting more than 375 statistical relationships between some measure of job satisfaction and some measure of either satisfaction with life overall or satisfaction with a specific facet of life (e.g., satisfaction with marriage, family, or leisure time). These results are quite consistent in showing positive zero-order relationships of modest magnitude. Over 90 percent of all the statistical relationships identified by Rice et al. were positive, and none of the occasional negative relationships achieved statistical significance. The magnitude of the correlations was typically in the .30's for measures of overall life satisfaction and in the teens for satisfaction with specific facets of life. More recent studies have yielded results consistent with the general trends reported earlier in the Rice et al. review (e.g., Bamundo & Kopelman, 1980; Chacko, 1983; Schmitt & Bedeian, 1982; Schmitt & Mellon, 1980).

Moderators. Far less research has considered variables that may moderate the strength of the job satisfaction-life satisfaction relationship. Rice et al. (1980) identified only nine studies reporting moderator analyses of the job satisfaction-life satisfaction relationship. These studies focused primarily on a single moderator: respondent gender. The job satisfaction-life satisfaction relationship has generally, but not always, been stronger for males than for females, with correlations typically in the .30's for males and the .20's for females.

Moderators other than gender were considered in only four studies identified by Rice et al. (1980). Subsequent to the Rice et al. review, Bamundo and Kopelman (1980) provided a fifth study of this type. Several variables besides gender have significantly moderated the job satisfaction-life satisfaction relationship in these studies, e.g., occupational level, education, income, job tenure, and race. Only age, education, and socio-economic status have yielded significant moderator effects in at least two studies; however, these three variables did not yield effects of the same form across the studies reporting significant results (Bamundo & Kopelman, 1980; London, Crandall, & Seals, 1977; and the secondary analyses of Kavanagh & Halpern, 1977, reported by Bamundo & Kopelman, 1980, p. 107). Thus, there is considerable inconsistency and lack of replicability in results concerning possible job satisfaction-life satisfaction moderators other than gender.

To explain those demographic variables that have achieved significance as moderators, researchers have often invoked a job importance argument. For example, Brayfield, Wells, and Strate (1957) interpreted their results showing stronger job satisfaction-life satisfaction correlations for males than for females as evidence that work plays a more important role in the lives of men than of women. Similarly, London et al. (1977) and Bamundo and Kopelman (1980)



offered importance interpretations of their more recent findings. Based on stronger job satisfaction-life satisfaction relationships, London et al. concluded that job satisfaction was a more important contributor to the overall life satisfaction for "advantaged" groups than for "relatively disadvantaged" groups. Members of their advantaged groups were white, middle-aged, married males with college educations and white collar, high status jobs; their relatively disadvantaged groups had the opposite demographic characteristics (e.g., young, blue collar, and so on). Bamundo and Kopelman proposed that education, age, income, status, and job tenure are related to job involvement and the importance attached to work. They interpreted significant moderator effects for these demographic variables in terms of subgroup differences in the importance of work.

#### Testing the Job Importance Hypothesis

We converted these post-hoc interpretations of demographic moderators into the following a priori hypothesis: the strength of the job satisfaction-life satisfaction relationship is positively associated with job importance. That is, we hypothesized that the job satisfaction-life satisfaction relationship is stronger for respondents placing more importance on work than for those placing less importance on work.

There are many different reasons why a job may be important to an individual. For example, the job may be important because: a) it provides the sole source of financial support, (b) it requires large commitments of one's time and energy, c) it contributes substantially to the employing organization and to society in general, or d) it involves tasks in which one is personally involved and absorbed. In recognition of these multiple causes of job importance, we separately tested the job importance hypothesis with several different indicators thought to influence job importance.

## Method

### Samples

Two nationwide probability sample surveys conducted by the University of Michigan's Survey Research Center provided data appropriate for testing the job importance hypothesis: the Quality of Employment Survey (Quinn & Shepard, 1974), and the Quality of American Life Survey (Campbell, Converse, & Rodgers, 1976).

The 1972-1973 Quality of Employment Survey consists of personal interviews conducted with 1496 individuals living in households within the continental United States (excluding military bases). Only household members 16 years of age or older who were employed for 20 or more hours per week were surveyed. Roughly 70 percent of the sampled households had eligible respondents. Interviews were successfully conducted in 75.5 percent of these eligible households. The interview focused on different aspects of the work setting and provided scores for 791 different variables.

The Quality of American Life Survey consists of personal interviews with 2164 individuals living in households within the continental United States (excluding military bases). Persons 18 years of age or older were eligible respondents. The sample was comprised of roughly 2720 households. Of eligible respondents, approximately 80 percent were interviewed. The interview focused primarily on nonwork conditions of life (e.g., marriage, family, housing, leisure) and provided scores for 537 different variables.

For a more detailed description of the sampling procedures used in these surveys, consult the original references.

Measures of Job Satisfaction and Life Satisfaction

To create multi-item scales for job and life satisfaction, we followed procedures developed by each set of authors. Similar, but not identical, procedures were used in the two studies to calculate these scale scores.<sup>1</sup>

In the 1973 Quality of Employment Survey, the job satisfaction index was derived from 33 facet-specific descriptions of the respondent's job (e.g., pay is good, co-workers are helpful) and five questions concerning overall (facet-free) evaluation of the job (e.g., does this job measure up to your expectations?). Each of these 38 responses was converted to a Z-score. Separate Z-score averages were calculated for the 33 facet-specific and 5 facet-free items. Quinn and Shepard's (1974) total job satisfaction score was the average of these two averages. The internal consistency was high for both the facet-specific and facet-free composite scores (alphas = .92 and .77). The correlation between the two mean scores was  $r(963) = .54, p < .001$ .

The life satisfaction scale for the Quality of Employment Survey was calculated in a fashion similar to the job satisfaction scale. Respondents described their lives in terms of eight semantic differential scales (e.g., boring-interesting). They also answered two global questions concerning their overall satisfaction and happiness with life. After converting all responses to Z-scores, the average Z-score was calculated for each of these two sets of responses (i.e., the eight semantic differentials vs. the two global items). Quinn and Shepard's (1974) life satisfaction index was the average of these two average Z-scores. The internal consistency was high for both the eight semantic differential items and the two global questions (alphas = .90 and .70). The correlation between the two mean composite scores was  $r(963) = .58, p < .001$ .

In the Quality of American Life Survey, ten job satisfaction items were available for respondents working for pay outside the home.<sup>2</sup> There were nine items providing facet-specific descriptions of the respondent's job (e.g., travel to and from work is convenient, job security is good). There was one question concerned with overall (facet-free) job satisfaction. All ten items were similar to those used in an earlier version of the employment survey. After converting each response to Z-score form, the average Z-score was calculated for the nine facet-specific items. The job satisfaction index was the mean of this average facet-specific score and the one overall satisfaction item. The internal consistency of the nine facet-specific scores was high ( $\alpha = .89$ ). The correlation between the facet-specific and overall satisfaction score was  $r(1231) = .63, p < .001$ .

The general index of well-being developed by Campbell et al. was used as our life satisfaction scale. This index is based on eight semantic differential descriptions of life and one question concerning overall satisfaction with life. In order to emphasize the one overall satisfaction question, Campbell et al. created their index using the following formula: well-being = 1.1 (satisfaction score) + mean semantic differential score. The internal consistency for the eight semantic differential scales was high ( $\alpha = .89$ ). The correlation between these two component scores was  $r(2099) = .56, p < .001$ .

The Z-score and averaging procedures described above serve a useful function; they insure that approximately equal weight is given to facet-free and facet-specific approaches to measuring job and life satisfaction even when the number of such items and their standard deviations differ. By first calculating separate average Z-scores for these two types of satisfaction questions and then combining these two separate averages into a single grand average, we insure that the resultant satisfaction measures reflect both general

reactions to the job (or life) as well as a sampling of reactions to the specific concerns comprising these more global concepts.

#### Measures of Job Importance

Job importance concerns the level of personal significance and value associated with one's job. The greater the personal needs satisfied by work, the greater the importance attached to work. Eleven indirect indicators of job importance were derived from questions included in these surveys. Each indicator represents a different reason that a job may be important to the individual.

The Quality of Employment Survey provided nine indicators we assumed to be relevant to some aspect of job importance. The job was considered to be important to the respondent under the following circumstances: 1) if the job consumed an important proportion of the respondent's time (two items); 2) if the respondent viewed his or her work to have important personal value (two items); 3) if the job required an important contribution of the respondent's energy and effort (two items); 4) if the respondent described him- or herself as being psychologically involved in the job to an important degree (one item); 5) if the respondent described the job as a means of developing skills important to his or her future (three items); 6) if the income provided by the job is important to the respondent and his or her family because the respondent is the sole wage earner in the household (one item); 7) if the income provided by the job is important to the respondent and his or her family because the respondent is the major wage earner in a family with more than one wage earner (one item); 8) if the performance of job duties is an important reflection of personal decisions and values by the respondent because the immediate supervisor encourages autonomy (three items); and 9) if the performance of job duties is an important reflection of self because the job provides a high degree of self-direction (eight items).

The Quality of American Life Survey provided two indirect measures of job importance. The job was considered to be important to the respondent under the following conditions: 1) if the job consumed an important proportion of the respondent's time, and 2) if the respondent indicated that it was important to him or her to have an interesting job (one item).

All job importance indicators were scored so that high scores indicate high levels of importance (e.g., much time consumed by work, no other adults in household working outside the home, highly involved in work). As shown in Table 1, the different measures of job importance are positively correlated with each other in all but one case ( $r = -.06$  between effort required and amount of self-direction available). However, the magnitude of these intercorrelations is generally weak. Only four of the 37 correlations exceeded .40, and the highest was .52. Given these modest intercorrelations, we chose to conduct separate tests of the job importance hypothesis with each of the 11 indicators of job importance.

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Insert Table 1 about here

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The coefficient alpha values for the multi-item indicators of job importance are presented on the main diagonal in Table 1. The items comprising multi-item importance scales were converted to Z-scores when necessary to compensate for the dramatically different standard deviations among the component items.

#### Further Details on Measurement Procedures

To conserve space, we have not stated verbatim the survey questions used to measure each concept. An appendix providing a complete list of all questions used in the analyses reported here is available from the first author.

### Model of Analysis

To determine if a variable moderates the job satisfaction-life satisfaction relationship, the traditional regression approach was utilized (see Zececk, 1971; Cohen & Cohen, 1975). This approach consists of a three-step hierarchical regression. In the first step of the regression procedure, job satisfaction was entered as the sole predictor of life satisfaction. In the second step, the moderator variable was added as an independent predictor. Finally, in the third step, an interaction term was added (consisting of the product of job satisfaction and the moderator variable); this product represents the potential moderator effect. If adding the interaction term results in a significant increment in  $R^2$ , the presence of a moderator is indicated. To insure that these cross-product values could be interpreted meaningfully when Z-scores were involved, a constant of 10 was added to each respondent's score. This insured that none of the cross-products took on negative values.

### Results

#### Job Importance Moderators

Contrary to the predictions of the job importance hypothesis, there were no significant moderator effects. None of the 11 indirect indicators of job importance added significantly to the prediction of overall life satisfaction when entered as an interaction (moderator) term in step three of the hierarchical analysis. The results of these 11 regression analyses are summarized in Table 2. For each potential moderator variable, this table provides the following information: sample size for the relevant analysis, the increment in  $R^2$  when the variable is added to job satisfaction as an independent predictor of life satisfaction (step 2) and when the variable is multiplied by job satisfaction to represent the moderator (step 3). To aid interpretation of these results, we have also included the unstandardized regression coefficient

for the product that represents the moderator effect in step 3. Finally, the total  $R^2$  value for each of the three variable prediction equations is provided.

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Insert Table 2 about here

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In considering the results of these moderated regression analyses, it is important to recognize that we were able to account for a substantial proportion of the variance in life satisfaction with our three-variable regression equations, total  $R^2$  values ranged from .20 - .26, depending on the particular job importance indicator involved. However, nearly all the predictive power of these three-variable equations came from the job satisfaction measure.

Only two of these potential moderator variables added a significant amount of variance step 2 when they were entered as simple independent predictors (value of work to R and the presence of other workers in the household). When job satisfaction was held constant at this second step in the analysis, value of work to the respondent had a positive relationship with life satisfaction (beta = .34). Again holding job satisfaction constant, life satisfaction was greater for respondents having another worker in the family than for respondents who were the sole wage earner in the family (beta = -.06).

#### Correlations

Table 1 presents the correlations between job importance and the two satisfaction measures. Of the 22 correlations, 17 are significant; six of these significant correlations are large enough to indicate more than 10 percent shared variance. In general, the relationships are positive, i.e., increases in job importance are associated with increases in satisfaction with both job and life overall. However, there are five exceptions to this pattern. In the Quality of Employment Survey, effort required by work was negatively related to job satisfaction ( $r = -.07$ ), and being the major wage



earner in the family was negatively related to life satisfaction ( $r = -.09$ ). In the Quality of American Life Survey, ratings of how important it is to have an interesting job were negatively correlated with both job satisfaction ( $r = -.13$ ) and life satisfaction ( $r = -.05$ ). This second study also showed a negative relationship between number of hours worked per week and job satisfaction ( $r = -.06$ ).

The final, and perhaps most important result in Table 1 concerns the job satisfaction-life satisfaction correlation. For both data sets, these correlations were stronger than anticipated on the basis of the Rice et al. (1980) review. For the 1973 Quality of Employment Survey  $r(963) = .48, p < .001$ . For the Quality of American Life Survey,  $r(1231) = .49, p < .001$ .

#### Discussion

The present study failed to support the job importance hypothesis. Contrary to predictions, the strength of the job satisfaction-life satisfaction relationship was not positively moderated by any of the 11 indirect indicators of job importance available from these two surveys.

Several features of the research give special significance to our failure to find significant moderators of the form predicted by the job importance hypothesis. First, the two data sets used in this research are large enough to provide considerable statistical power for the moderated regression analysis, i.e., we could reject the null hypothesis with moderator effects of modest magnitude. Second, the sophisticated sampling designs of the two surveys ensure that the present results can be generalized to the national population. Third, the multi-item measures of job satisfaction and life satisfaction created from these two data sets had high internal consistency. Fourth, research has shown that these measures of job satisfaction and life satisfaction are also strong in terms of their construct validity (cf. Campbell et al., 1976; Quinn & Shepard,

1974; Quinn & Staines, 1979). Finally, we were able to test potential moderating effects for a broad range of variables thought to be causes of job importance. In light of the strengths of the data and the analysis techniques used in the present study, it is essential to consider the conceptual implications of the negative results that were generated.

#### Implicit Weighting by Importance

Locke's (1969, 1976, 1984) analysis of implicit importance weightings provides a useful post-hoc explanation of our counterintuitive results. Locke proposed that affect intensity (e.g., job satisfaction) is a function of two factors: a) the discrepancy between perceived outcomes and desired outcomes, and b) the personal importance associated with each outcome. The importance variable must be included in the analysis of affective responses because the cognitive discrepancy between what one wants and what one has is affectively flat. It is the importance component that provides the affective charge for job satisfaction and related measures. Locke argued that individuals can experience a strong affective response, be it either high satisfaction or high dissatisfaction, only when dealing with issues of high personal importance. He further proposed that affective neutrality is associated with issues of little importance to the person, i.e., unimportant issues are incapable of eliciting either strong satisfaction or strong dissatisfaction. This analysis has been described by others in terms of "implicit" importance weightings (e.g., Mastekaasa, 1984) because it proposes that any measure of satisfaction implicitly reflects the personal importance of relevant outcomes.

Locke's treatment of importance is different from that offered by most other models of satisfaction. For example, a number of theorists have suggested that importance should serve as a weighting factor when using component affective responses to predict an overall affective response (e.g., Quinn &

Mangione, 1973; Andrews & Withey, 1976; Campbell et al., 1976; Mastekaasa, 1984). The distinction between these two uses of importance is illustrated by research testing the power of explicit importance weightings to enhance the predictive power of satisfaction scores. Such studies have tried to predict satisfaction with some general issue by using scores that reflect satisfaction with component facets of the general issue, e.g., predicting overall life satisfaction from satisfaction with facets of life such as job, family, and leisure; or predicting overall job satisfaction from satisfaction with job facets such as promotion opportunities, co-workers, and pay. To assess the impact of weighting component satisfaction scores by importance, these studies have created weighted satisfaction scores in the following manner: each facet satisfaction score is multiplied by a corresponding score reflecting the importance of each facet to the respondent. The consistent finding in such research is that the weighted component satisfaction scores cannot predict the overall satisfaction score any better than can the simple unweighted satisfaction scores (e.g., Quinn & Mangione, 1973; Andrews & Withey, 1976; Campbell et al., 1976; Mastekaasa, 1984). Such results are fully consistent with Locke's analysis; the explicit importance weights incorporated into these multiplicative product scores are not consequential because the facet satisfaction scores already contain implicit importance weights. The addition of the explicit importance weights is redundant and does not, therefore, enhance the predictive power of the facet satisfaction scores themselves.

This implicit reflection of importance in satisfaction scores may account for the results of the moderated regression analyses reported in the present study. Job satisfaction may implicitly reflect the various indirect indicators of job importance used in these analyses, thereby making it redundant to introduce

any further consideration of explicit importance ratings in the third step of moderated regression analyses. If importance serves as a weighting factor at the level of specific work-related outcomes that combine to determine a person's overall job satisfaction score, our rather global indicators of importance could not serve as significant moderators of the relationship between job satisfaction and life satisfaction. The implicit impact of job importance on job satisfaction would have been felt prior to the explicit consideration of the interaction term in the third step of the multiple regression analysis. A third variable such as job importance could not affect the relationship between two other variables such as job satisfaction and life satisfaction if both job importance and job satisfaction reflect, to a substantial degree, the same underlying construct (i.e., the personal importance of specific job-relevant outcomes).

At the time we initiated this study, we did not realize that this explanation of job importance moderators could be derived from Locke's analysis of implicit weightings. We did not see the connection between Locke's explanation of the predictive impotence of weighted component satisfaction scores and our proposed use of importance as a moderator variable. As suggested by the frequent reference to job importance notions in previous job satisfaction-life satisfaction studies, it appears that we were not alone in having failed to recognize this problem.

With the benefit of hindsight, we now argue that our moderator analyses and the weighted scoring procedures used in previous research to create multiplicative product scores are just different ways of representing an interaction effect. The functional equivalence of these apparently dissimilar procedures is made clear by recalling that we created the moderator term for the regression analysis by multiplying job importance and job satisfaction scores for each

respondent. The weighted scoring procedures and the third step of the moderated regression analysis can yield significant predictive increments only if the information contained in them is independent of the main effects. And, of course, the main point of the implicit weighting analysis is that importance and satisfaction are not independent, conceptually or empirically.

Importance can play a significant role in determining satisfaction and related affective responses despite the failure of importance ratings to enhance the predictive powers of satisfaction scores. As indicated in our summary of Locke's analysis, importance is a crucial variable when applied at the appropriate level. More specifically, cognitive discrepancies between desired and obtained outcomes must be weighted by importance to determine satisfaction. Empirical support for this proposition is provided by Locke, Fitzpatrick, and White (1983) and by earlier research reviewed by Locke (1969, 1976, 1984). However, there is no value in using importance weightings in efforts to enhance the predictive power of satisfaction scores. Because satisfaction scores are measures of resultant affect, they already reflect the implicit impact of importance. Empirical support for this second proposition can be found in results from both the present study of importance moderators and the previously referenced studies comparing weighted and unweighted satisfaction scores. In short, importance weightings can be important, but only when used appropriately. This distinction between appropriate and inappropriate uses of importance data has been overlooked too often by satisfaction researchers.

#### Magnitude of the Job Satisfaction-Life Satisfaction Relationship

The zero-order relationship between job and life satisfaction was higher for these two data sets than has typically been the case in prior research reviewed by Rice et al. (1980). These stronger-than-expected job satisfaction

-life satisfaction correlations may reflect the high quality of the data analyzed and/or peculiarities of the particular time at which both of these surveys of the American public were conducted (the early 1970's). The second explanation seems unlikely, however, since Rice et al. (1980) reported that there were no apparent time trends in the strength of the job satisfaction-life satisfaction correlations they reviewed. It seems reasonable to conclude that Rice et al. underestimated the strength of this relationship because their review did not consider systematically the quality of the data provided by the many studies reviewed. It seems wiser to base estimates of the job satisfaction-life satisfaction relationship on the strongest available data than on the simple aggregate of all available data as did Rice et al. (1980). On these grounds, 25 percent shared variance appears to be a better estimate of the true strength of the job satisfaction-life satisfaction relationship than the 10 percent figure suggested by the Rice et al. review.

#### Future Research

Given the results of the present study, it is apparent that future research concerned with the role of job importance in determining the overall quality of life must be conducted within the framework of a more fully elaborated causal model. Simply testing the strength of the job satisfaction-life satisfaction relationship, and moderators of this relationship, does not appear to be an adequate means of assessing how important the job might be as a contributor to overall quality of life. In the terminology of causal modeling, one cannot infer the strength with which work impacts on the overall life satisfaction by simply examining the job satisfaction-life satisfaction relationship because the causal model implied by such analyses is grossly "underspecified" (James, Mulaik, & Brett, 1982). This being the case, researchers would be best served by developing and testing well-specified theory that would allow for confirmatory

tests of the general role of job importance. Such research would represent a significant advance beyond the overly simple conceptual and statistical analyses that have dominated this area of research to date.

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Requests for reprints should be sent to Robert W. Rice, Department of Psychology, State University of New York at Buffalo, 4230 Ridge Lea Road, Buffalo, NY 14226.

<sup>1</sup>In calculating each of the scale scores, a list-wise deletion strategy was employed. Respondents were assigned a scale score only if they had legitimate responses for every one of the questionnaire items comprising a particular scale. Because of this procedure, the sample sizes reported in some of our analyses may be smaller than in some other analyses of these data. Other



researchers have sometimes used the average of available responses when faced with missing data.

<sup>2</sup>Only respondents with paid employment outside of the homemaker role responded to these questions.

## References

- Andrews, F. M., & Withey, S. B. (1976). Social indicators of well-being: The development and measurement of perceptual indicators. New York: Plenum.
- Bailyn, L., & Schein, E. H. (1976). Life/career considerations as indicators of quality of employment. In A. D. Biderman & T. F. Drury (Eds.), Measuring work quality for social reporting. New York: Wiley.
- Bamundo, P. J., & Kopelman, R. E. (1980). The moderating effects of occupation, age, and urbanization on the relationship between job satisfaction and life satisfaction. Journal of Vocational Behavior, 17, 106-123.
- Brayfield, A. H., Wells, R. V., & Strate, M. W. (1957). Intercorrelations among measures of job satisfaction and general satisfaction. Journal of Applied Psychology, 41, 201-205.
- Campbell, A., Converse, P. E., & Rodgers, W. (1976). The quality of American life: Perceptions, evaluations, and satisfactions. New York: Russell Sage Foundation.
- Chacko, T. I. (1983). Job and life satisfactions: A causal analysis of their relationships. Academy of Management Journal, 26, 163-169.
- Cohen, J., & Cohen, P. (1975). Applied multiple regression/correlation analysis in the behavioral sciences. Hillsdale, NJ: Erlbaum, 1975.
- James, L. R., Mulaik, S. A., & Brett, J. M. (1982). Causal analysis: Assumptions, models, and data. Beverly Hills: Sage.
- Kavanagh, M. J., & Halpern, M. (1977). The impact of job level and sex differences on the relationship between life and job satisfaction. Academy of Management Journal, 20, 66-73.

- Locke, E. A. (1969). What is job satisfaction? Organizational Behavior and Human Performance, 4, 309-336.
- Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), Handbook of industrial and organizational psychology (pp. 1297-1350). Chicago: Rand McNally.
- Locke, E. A. (1984). Job satisfaction. In M. Gruneberg & T. Wall (Eds.), Social psychology and organizational behavior (pp. 93-117). London: John Wiley & Sons, Ltd.
- Locke, E. A., Fitzpatrick, W., & White, F. M. (1983). Job satisfaction and role clarity among university and college faculty. Review of Higher Education, 6, 343-365.
- London, M., Crandall, R., & Sears, G. W. (1977). The contribution of job and leisure satisfaction to quality of life. Journal of Applied Psychology, 62, 328-334.
- Mastekaasa, A. (1984). Multiplicative and additive models of job and life satisfaction. Social Indicators Research, 14, 141-163.
- Payton-Miyazaki, M., & Brayfield, A. H. (1976). The good job and the good life: Relationship of characteristics of employment to general well-being. In A. D. Biderman and T. F. Drury (Eds.), Measuring work quality for social reporting. New York: Wiley.
- Quinn, R. P., & Mangione, T. W. (1973). Evaluating weighted models of measuring job satisfaction: A Cinderella story. Organizational Behavior and Human Performance, 10, 1-23.
- Quinn, R. P., & Shepard, L. G. (1974). The 1972-1973 quality of employment survey. Ann Arbor: Institute for Social Research, University of Michigan.
- Quinn, R. P., & Staines, G. L. (1979). The 1977 quality of employment survey. Ann Arbor: Institute for Social Research, University of Michigan.

- Rice, R. W., Near, J. P., & Hunt, R. G. (1980). The job-satisfaction/life-satisfaction relationship: A review of empirical research. Basic and Applied Social Psychology, 1, 37-64.
- Schmitt, N., & Bedeian, A. G. (1982). A comparison of LISREL and two-stage least squares analysis of a hypothesized life-job satisfaction reciprocal relationship. Journal of Applied Psychology, 67, 806-817.
- Schmitt, N., & Mellon, P. M. (1980). Life and job satisfaction: Is the job central? Journal of Vocational Behavior, 16, 51-58.
- Zedeck, S. Problems with the use of moderator variables. (1971). Psychological Bulletin, 76, 295-310.

Table 1  
Zero-Order correlations among job importance scales/variables,  
job satisfaction, and life satisfaction.<sup>1,2</sup>

| Scale/Variable Description                    | Variables from Quality of Employment Survey |       |       |       |       |       |                 |       |       |       |        |
|---|---|-------|-------|-------|-------|-------|-----------------|-------|-------|-------|--------|
|   | 1   | 2     | 3     | 4     | 5     | 6     | 7               | 8     | 9     | 10    | 11     |
| 1. Time consumed by work                      | (.57)                                       | .06*  | .17** | .24** | .20** | .11** | .28**           | .14** | .04   | .03   | .02    |
| 2. Value of work to R                         |   | (.54) | .08** | .32** | .33** | .07** | .14**           | .29** | .26** | .45** | .39**  |
| 3. Effort required by work                    |   |       | (.54) | .07** | .01   | .01   | .00             | .11** | -.06* | -.07* | .00    |
| 4. Job involvement                            |   |       |       | ---   | .42** | .10** | .17**           | .22** | .44** | .34** | .18**  |
| 5. Value of job to skill development          |   |       |       |       | (.79) | .07** | .18**           | .25** | .52** | .41** | .22**  |
| 6. Sole wage earner                           |   |       |       |       |       | ---   | NA <sup>3</sup> | .09** | .13** | .06*  | -.03   |
| 7. Major wage earner                          |   |       |       |       |       |       | ---             | .01   | .19** | .11** | -.09** |
| 8. Supervisor encourages autonomy             |   |       |       |       |       |       |                 | (.51) | .45** | .45** | .23**  |
| 9. Amount of self-direction available at work |   |       |       |       |       |       |                 |       | (.79) | .51** | .28**  |
| 10. Job satisfaction                          |   |       |       |       |       |       |                 |       |       | ---   | .46**  |
| 11. Life satisfaction                         |   |       |       |       |       |       |                 |       |       |       | ---    |

Variables from Quality of American Life Survey

|  | Variables from Quality of American Life Survey |       |        |       |
|--|--|-------|--------|-------|
|  | 1  | 2     | 3      | 4     |
| 1. Total hours worked per week by R    | ---  | .16** | -.06*  | -.00  |
| 2. How important is an interesting job |  | ---   | -.13** | -.05* |
| 3. Job satisfaction                    |  |       | ---    | .49** |
| 4. Life satisfaction                   |  |       |        | ---   |

<sup>1</sup>N's ranged from 612 to 2160.

<sup>2</sup>Reliability coefficients for scales are given in parentheses on the main diagonal

<sup>3</sup>This correlation cannot be calculated because respondents were asked if they were the major wage earner only if there was more than one wage earner in the household.

\*p < .05      \*\*p < .01  
two tailed

Table 2

Summary of moderated regression analyses for job importance

| Moderator Description                             | N    | R <sup>2</sup><br>V | Increment<br>JSxV | R <sup>2</sup> | b <sub>JSxV</sub> |
|---|------|---------------------|-------------------|----------------|-------------------|
| Moderators from 1973 Quality of Employment Survey |      |                     |                   |                |                   |
| 1. Time consumed by work                          | 1078 | .000                | .001              | .22**          | -.03              |
| 2. Value of work to R                             | 1410 | .044**              | .000              | .26**          | -.01              |
| 3. Effort required by work                        | 1410 | .001                | .001              | .21**          | -.03              |
| 4. Job involvement                                | 1414 | .000                | .001              | .21**          | .02               |
| 5. Value of job to skill development              | 1414 | .001                | .000              | .22**          | -.01              |
| 6. Sole wage earner                               | 960  | .004*               | .001              | .23**          | -.02              |
| 7. Major wage earner                              | 586  | .003                | .000              | .23**          | .00               |
| 8. Supervisor encourages autonomy                 | 1181 | .000                | .000              | .22**          | -.01              |
| 9. Amount of self-direction available<br>at work  | 1337 | .002                | .001              | .22**          | -.03              |
| Moderators from Quality of American Life Survey   |      |                     |                   |                |                   |
| 1. Total hours worked per week by R               | 1206 | .001                | .001              | .23**          | .06               |
| 2. How important is an interesting job            | 1222 | .001                | .000              | .20**          | -.23              |

\* p &lt; .05

\*\* p &lt; .01

## Appendix - Survey Questions

Listed below are the survey questions analyzed in this article. The variable numbers are those used in the original codebooks for these two data sets. These codebooks and the data are available through the Inter-University Consortium for Political and Social Research (ICPSR), Institute for Social Research, The University of Michigan, Box 1248, Ann Arbor, Michigan 48106.

## I. QUALITY OF EMPLOYMENT SURVEY (Quinn &amp; Shepard, 1974)

A. life satisfaction

Here are some words and phrases which you can use to describe how you feel about your present life. Put a mark in one box on every line that describes how you see your life.

|      |                           |   |   |   |   |   |   |   |                                  |
|------|---------------------------|---|---|---|---|---|---|---|----------------------------------|
| V733 | boring                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | interesting                      |
| V734 | enjoyable                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | miserable                        |
| V736 | useless                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | worthwhile                       |
| V737 | friendly                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | lonely                           |
| V738 | full                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | empty                            |
| V739 | discouraging              | 1 | 2 | 3 | 4 | 5 | 6 | 7 | hopeful                          |
| V741 | disappointing             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | rewarding                        |
| V742 | brings out the best in me | 1 | 2 | 3 | 4 | 5 | 6 | 7 | doesn't give me much of a chance |

V743 Taking all things together, how would you say things are these days? Would you say you're very happy, pretty happy, or not too happy these days?

V744 In general, how satisfying do you find the ways you're spending your life these days? Would you call it completely satisfying, pretty satisfying, or not very satisfying?

B. job satisfaction

Here are some cards that describe different aspects of a person's job. I'd like you to put each white card (with the job description statement) below the pink card that best reflects how true you feel each is of your job.

(The pink cards used in this card sort format had the following response alternatives: 1. This is not at all true of my job; 2. This is a little true of my job; 3. This is somewhat true of my job; 4. This is very true of my job).

|      |  |
|------|--|
| V625 | I am given a lot of chances to make friends                |
| V626 | the chances for promotion are good                         |
| V628 | I have an opportunity to develop my own special abilities  |
| V629 | travel to and from work is convenient                      |
| V630 | I receive enough help and equipment to get the job done    |
| V631 | I am not asked to do excessive amounts of work             |
| V632 | the work is interesting                                    |
| V633 | I have enough information to get the job done              |
| V634 | the pay is good  |
| V635 | I am given a lot of freedom to decide how I do my own work |
| V636 | I am given a chance to do the things I do best             |
| V637 | the job security is good                                   |
| V638 | the problems I am expected to solve are hard enough        |

- V639 my supervisor is competent in doing (his/her) job  
 V640 my responsibilities are clearly defined  
 V641 I have enough authority to do my job  
 V642 my fringe benefits are good  
 V643 the physical surroundings are pleasant  
 V644 I can see the results of my work  
 V645 I can forget about my personal problems  
 V646 I have enough time to get the job done  
 V647 my supervisor is very concerned about the welfare of those under (him/her)  
 V648 I am free from the conflicting demands that other people make of me  
 V649 the hours are good  
 V650 my supervisor is successful in getting people to work together  
 V651 promotions are handled fairly  
 V652 the people I work with take a personal interest in me  
 V653 my employer is concerned about giving everyone a chance to get ahead  
 V654 my supervisor is friendly  
 V655 my supervisor is helpful to me in getting my job done  
 V656 the people I work with are helpful to me in getting my job done  
 V657 the people I work with are competent in doing their jobs  
 V658 the people I work with are friendly

V32 If you were free to go into any type of job you wanted, what would your choice be? (coded as 1. same job that R has now, 3. R would want to retire or not work, 5. R specifies some job other than his present one).

V659 All in all, how satisfied would you say you are with your job-- very satisfied, somewhat satisfied, not too satisfied, or not at all satisfied?

V660 (PHRASE IN SAME SEX AS R). If a good friend of yours told you (he/she) was interested in working in a job like yours for your employer, what would you tell (him/her)? Would you strongly recommend this job, would you have doubts about recommending it, or would you strongly advise (him/her) against this sort of job?

V661 Knowing what you know now, if you had to decide all over again whether to take the job you now have, what would you decide? Would you decide without any hesitation to take the same job, would you have some second thoughts, or would you decide definitely not to take the same job?

V663 In general, how well would you say that your job measures up to the sort of job you wanted when you took it? Would you say it is very much like, somewhat like, or not very much like the job you wanted when you took it?

C. job importance

1. time consumed by work

V229 during the average week, how many hours do you work, not counting the time you take off for meals?

V252 How often do you work overtime--often, once in a while, or never?



## 2. value of work to respondent

V710 important 

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|

 not important  
(R rates "how you see yourself in your work")

V722 I feel that I am useful and needed (often, sometimes, rarely, never).

## 3. effort required by work

V101 How much does your job require you to work very hard?

V102 How much does your job require you to exert a lot of physical effort?  
(a lot, somewhat, a little, not at all--alternative responses used for both V101 and V102).

## 4. job involvement

V665 Some people are completely involved in their job--they are absorbed in it day and night. For other people, their job is simply one of many interests. How involved do you feel in your job--very little, slightly, moderately, or strongly involved?

## 5. value of job to skill development

V92 How much of a help do you think your present job is in providing you with some of the experience or training you need to qualify for this job you expect to have five years from now--a great help, some help, only a little help, or no help at all?

V93 How useful and valuable will your present skills be five years from now--will they be very useful and valuable, somewhat, a little, or not at all useful and valuable.

V97 How much does your job require that you keep learning new things--a lot, somewhat, a little, or not at all?

## 6. sole wage earner

V449 Are there others in the household who work? (yes, no)

## 7. major wage earner

V450 (Asked only of those with other wage earners in the household).  
Are you the major wage earner in your immediate family? (yes, no)

## 8. supervisor encourages autonomy

V137 How true is it that (your supervisor) lets those (he/she) supervises set their own pace?

V139 ...that (he/she) encourages those (he/she) supervises to develop new ways of doing things?

V142 ...that (he/she) lets those (he/she) supervises alone unless they want help (very true, somewhat true, not too true, not at all true--alternative responses used for V137-V142).

## 9. amount of self direction available at work

- V99 How much freedom does it allow you as to how you do your work?
- V103 How much does your job allow you to make a lot of decisions on your own?
- V104 ...require you to be creative?
- V108 ...allow you to take part in making decisions that affect you?
- V110 ...help you understand the type of person you really are?
- V114 A job where you have a lot of say over what happens on your job?
- V115 A job that lets you use the skills and knowledge you learned in school? (a lot, somewhat, a little, not at all--alternative responses used for V99-V115).
- V118 Do you feel that you are being given enough or not enough authority to tell certain people what to do (for you to work your best)? (enough, not enough).

## II. QUALITY OF AMERICAN LIFE SURVEY (Campbell, Converse &amp; Rodgers, 1976)

A. life satisfaction

- V134-V135, same 8 adjective pairs for describing life feels as used  
 V137-V140, in the employment survey and listed above.  
 V142-V144

- V357 How satisfied are you with life as a whole these days? (1. completely satisfied, 4. neutral, 7. completely dissatisfied--other response numbers did not have verbal labels).

B. job satisfaction

Please tell me how true each one (statement) is of your job.

- V174 travel to and from work is convenient
- V175 the work is interesting
- V176 the pay is good
- V177 I am given a lot of chances to make friends
- V178 the physical surroundings are pleasant
- V179 the job security is good
- V180 I have an opportunity to develop my own special skills
- V181 I am given a chance to do the things I do best
- V183 I have enough time to get the job done  
 (1. very true, 2. somewhat true, 3. not very true, 4. not at all true--alternative responses for V174-V183).
- V188 All things considered, how satisfied are you with your (main) job?  
 Which number comes closest to how satisfied or dissatisfied you feel?  
 (1. completely satisfied, 4. neutral, 7. completely dissatisfied--  
 other response numbers did not have verbal labels).

C. job importance

- V167 About how many hours do you work on this job in the average week?
- V322 How important (to you) is an interesting job?  
 (1. extremely important, 2. very important, 3. quite important,  
 4. somewhat important, 5. not at all important).

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