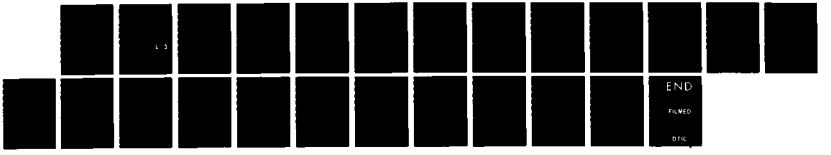
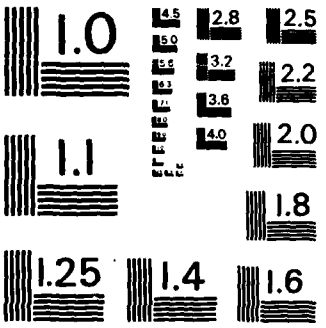
AD-A161 993 INTER-DOMAIN FIT AND THE PERCEIVED QUALITY OF LIFE(U) 1/1
STATE UNIV OF NEW YORK AT BUFFALO DEPT OF PSYCHOLOGY
R W RICE ET AL. OCT 85 TR-4-ONR N00014-84-K-0002
UNCLASSIFIED F/G 12/1 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS - 1963 - A

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

(12)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER ONR-4	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Inter-Domain Fit and the Perceived Quality of Life		5. TYPE OF REPORT & PERIOD COVERED Intermin Technical Report 6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Robert W. Rice, Michael R. Frone & Dean B. McFarlin		8. CONTRACT OR GRANT NUMBER(s) N00014-84-K-0002
9. PERFORMING ORGANIZATION NAME AND ADDRESS Department of Psychology State University of New York at Buffalo 4230 Ridge Lea Road Amherst, NY 14226		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS NR-170-964
11. CONTROLLING OFFICE NAME AND ADDRESS Organizational Effectiveness Research Programs Office of Naval Research (Code 4420E) Arlington, VA 22217		12. REPORT DATE October 1985 13. NUMBER OF PAGES 15
14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office)		15. SECURITY CLASS. (of this report) 15a. DECLASSIFICATION. DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; distribution unlimited

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

work
perceived quality of life
role conflict
additive models
nonadditive models

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Survey responses from a 1977 national probability sample of 1515 employed Americans working at least 20 hours per week provided a test of competing predictions concerning the incremental utility of perceived inter-domain fit in predicting overall perceived quality of life (pQL). If additive models are inadequate in the sense of failing to consider inter-domain interactions, measures of perceived inter-domain fit should

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

S/N 0102-LF-014-6601

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

add substantially to the prediction of overall pQL. On the other hand, if additive models are adequate, measures of inter-domain fit should not add substantially to the prediction of overall pQL. Additive models using just two domain pQL measures accounted for substantial proportions of the variance in three pQL measures: R^2 = .23-.30 based on work and family domain pQL, and R^2 = .16-.20 based on work and leisure domain pQL. When the effects of the two relevant domain pQL scores were statistically controlled in hierarchical regression analyses, measures of perceived work-family and work-leisure fit added significantly to the prediction of Life Ratings and Satisfaction, but not Happiness. However, these increments never accounted for as much as one-half of one percent of the variance in measures of overal pQL, thereby supporting predictions based on additive models of pQL.

Inter-Domain Fit and the Perceived Quality of Life

Robert W. Rice, Michael R. Frone,

State University of New York at Buffalo

and

Dean B. McFarlin

State University of New York at Albany

Survey responses from a 1977 national probability sample of 1515 employed Americans working at least 20 hours per week provided a test of competing predictions concerning the incremental utility of perceived inter-domain fit in predicting overall perceived quality of life (pQL). If additive models are inadequate in the sense of failing to consider inter-domain interactions, measures of perceived inter-domain fit should add substantially to the prediction of overall pQL. On the other hand, if additive models are adequate, measures of inter-domain fit should not add substantially to the prediction of overall pQL. Additive models using just two domain pQL measures accounted for substantial proportions of the variance in three pQL measures: R =.24-.30 based on work and family domain pQL, and R = .16-.20 based on work and leisure domain pQL. When the effects of the two relevant domain pQL scores were statistically controlled in hierarchical regression analyses, measures of perceived work-family and work-leisure fit added significantly to the prediction of Life Ratings and Satisfaction, but not Happiness. However, these increments never accounted for as much as one-half of one percent of the variance in measures of overall pQL, thereby supporting predictions based on additive models of pQL.

Inter-Domain Fit and the Perceived Quality of Life

Robert W. Rice, Michael R. Frone,

State University of New York at Buffalo

and

Dean B. McFarlin

State University of New York at Albany

Technical Report ONR-4

This research was supported by the Organizational Effectiveness Research Program, Office of Naval Research (Code 4420E), under Contract No. N00014-84-K-002; NR 170-964.

Inter-Domain Fit and the Overall Perceived Quality of Life

Robert W. Rice, Michael R. Frone, and Dean B. McFarlin

Applied psychologists concerned with social indicator systems have devoted considerable effort to assessing the "perceived quality of life" (pQL), also referred to as "subjective well-being" (e.g., Andrews & Withey, 1976; Bradburn, 1969; Campbell, 1981; Campbell et al., 1976; Diener, 1984; Michalos, 1980; Warr, 1978). The perceived quality of life concerns the affective beliefs and evaluations about one's life. Such beliefs and evaluations may be directed toward life as a whole (overall pQL) or toward the individual domains comprising the totality of life (domain pQL, e.g., perceived quality of work life, or perceived quality of family life). A variety of different self-report measures have been used to operationalize the pQL concept, e.g., happiness, satisfaction, anxiety, and mood (see Andrews & Withey, 1976; and Diener, 1984; for reviews of measurement techniques).

Several pQL theorists have offered additive linear models of overall pQL (e.g., Andrews & Withey, 1976, Campbell, Converse, & Rodgers, 1976, Michalos, 1980; Rice, McFarlin, Hunt, & Near, 1985). Such models propose that overall pQL is determined by the sum of pQL reactions associated with each of the constituent domains of life. Empirical findings generally support such models. Typically, 50-60% of the variance in overall pQL can be accounted for with pQL scores from 10-20 specific domains of life (*cf.* Diener, 1984; Rice et al., 1985).

Despite the empirical support available for additive linear models, pQL scholars have often expressed concerns that such models may be over-simplified (e.g., Andrews & Withey, 1976; Campbell et al., 1976). Overall pQL may be determined by more than just the simple unweighted sum of pQL scores for constituent domains of life. For instance, reactions to different domains may contribute to overall pQL by interacting with one another or with other variables. Andrews and Withey (1976) examined the

possibility of interactions between domain pQL and a wide range of demographic variables. Significant interactions of this type would identify demographically defined subgroups assigning different weights to different domains when performing the cognitive calculus that produces overall pQL responses. Adopting a somewhat different approach to the search for interaction effects, several studies have weighted each domain pQL score by the perceived importance of each domain to the individual respondent (e.g., Andrews & Withey, 1976; Campbell et al., 1976). Andrews and Withey (1976) also examined the possibility of more complex, nonlinear effects by using power functions and computed cross-products of separate domain pQL scores to predict overall pQL in multiple regression analyses. Regardless of the specific approach attempted, noneq of these more complex models have been substantially more effective in predicting overall pQL than simpler additive models.

The more complex models of pQL tested in prior research may have failed to predict pQL more accurately than simple additive models because of the operational procedures adopted. These previous studies relied exclusively on statistical manipulation of domain pQL scores to represent more complex predictors of overall pQL. In contrast, the present study used direct respondent perceptions of the interdependencies among life domains to operationalize the concept of inter-domain interactions. For example, respondents were asked to evaluate the goodness of fit between their work lives and their family lives. Because this operationalization relies on individual perceptions of inter-domain fit, it provides a very different approach for representing inter-domain interactions. Such perceptions may be more useful in predicting pQL than statistically created interactions simply because pQL and perceived inter-domain fit are both subjective perceptual measures. The present study was designed to evaluate the predictive value of more complex models of overall pQL incorporating this perceptual approach to inter-domain interactions. Additional research comparing simple versus more complex models of overall pQL is important at

this time because there seem to be lingering doubts about the adequacy of simple additive models. Despite available evidence supporting additive models of overall pQL, more complex models seem to have an intuitive appeal based on the yet unsupported proposition that more complex models should be necessary to account for something as complex as overall pQL.

If additive models are, in fact, oversimplified in the sense of failing to consider inter-domain interdependencies, then perceptions of inter-domain fit should contribute substantially and positively to the prediction of overall pQL even after controlling for the effects of domain pQL. This prediction is best expressed within the context of a regression analysis. Scores representing inter-domain fit between any pair of life domains would be expected to provide a significant and substantial increment in the R value for prediction of overall pQL when entered into a regression equation that already contains measures of pQL for each of the two domains.

Kopelman, Greenhaus, and Connolly (1984) have presented a model of work-family conflict and overall life satisfaction that can be extended to provide a second, competing prediction concerning the role of perceived inter-domain fit. Consistent with other additive models of overall pQL, Kopelman et al. proposed that satisfaction with life as a whole is determined, in part, by satisfaction with work and with family. Their model is unique among additive models, however, in considering the issue of inter-domain fit. They proposed that conflict between work and family roles, which is a form of inter-domain fit, is a cause of satisfaction with work and with family. Within their model, however, such conflict has no direct effects on overall life satisfaction. Any effect of work-family conflict on overall life satisfaction is mediated through indirect effects on domain satisfaction responses. The Kopelman et al. model is also unique among models of work-nonwork conflict in that such models typically consider domain pQL and overall pQL responses simply as alternative measures of well-being; such models fail to specify the causal

relationships among these alternative types of pQL measures (e.g., Cooke & Rousseau, 1984).

Although the Kopelman et al. model clearly goes further than other models in specifying the causal relationships among work-family conflict, job satisfaction, and life satisfaction, their model is limited in that it considers inter-domain fit between just one pair of life domains (work and family) and just one class of overall pQL response (life satisfaction). If, however, we extend this model to include domains other than work and family, and measures of overall pQL other than life satisfaction, we can derive the general prediction that measures of perceived inter-domain fit will not add substantially to the prediction of overall pQL.

The purpose of the present study was to test these two competing predictions concerning the incremental effects of including measures of perceived inter-domain fit when predicting overall pQL. As advocates of an additive model of overall pQL (Rice et al., 1985), we expected that predictions based on the Kopelman et al. model would be supported even when using perceived measures of inter-domain fit to create more complex models of overall pQL.

Method

The predictive value of perceived inter-domain fit was tested through secondary analyses of data collected in the 1977 Quality of Employment Survey (Quinn & Staines, 1979). Household interviews were conducted with a national probability sample of 1515 adults engaged in paid employment at least 20 hours per week.

Measurement Procedures

Overall pQL. There is general agreement among pQL researchers that this concept requires the use of multiple measures; no single measure of overall pQL has come to be accepted as a standard criterion score (Diener, 1984). The Quality of Employment Survey provided three measures of overall pQL that seemed particularly useful in

light of extensive prior use and their potential relevance to the concept of inter-domain fit. The first measure, Life Ratings, was the mean of eight semantic differential ratings of current life experiences; respondents described their lives in terms such as disappointing-rewarding, boring-interesting. These adjective pairs were developed by Campbell et al. (1976) and comprise part of their overall well-being index. The second measure, Satisfaction, was a single item asking respondents how satisfying they found their lives. This overall life satisfaction item was similar to, but not identical with, the single item satisfaction questions used extensively by Campbell et al. (1976), Andrews and Withey (1976), and others. The third measure, Happiness, was a single item developed by Bradburn (1969) and used in many subsequent studies of pQL. This item asked respondents to indicate how happy they were with the way "things are these days."

Domain pQL. The Quality of Employment Survey provided measures of domain pQL for work and two crucial nonwork domains: leisure and family. The Michigan facet-free job satisfaction scale (Quinn & Staines, 1979) provided the measure of Work pQL; this five item scale assessed different general reactions to the job, e.g., direct ratings of satisfaction with current job, willingness to recommend the job to a friend, and desire to get a different job. A single item concerning satisfaction with free-time activities was used to assess Leisure pQL. A score for Family pQL was calculated for married respondents answering at least two of three questions concerning marriage and family. Married respondents were asked separate questions concerning "how happy" and "how satisfied" they were with their marriage. Married respondents with children under 18 in the household were also asked how satisfied they were with their "family life."

Inter-domain Fit. There were two measures of the perceived fit between life domains. The first, Work-Family Fit, asked respondents to indicate how much "your job and your family life interfere with each other." The second measure,

Work-Leisure Fit, was a parallel question asking about interference between job and free-time activities. Prior to our analyses, we reverse scored both interference items so that high scores would indicate good inter-domain fit, i.e., the absence of interference.

In the interest of brevity, we have not presented verbatim statements of the questionnaire items used in our analyses. However, an appendix providing such information is available from the senior author.

Descriptive Statistics

Table 1 presents the means, standard deviations, and intercorrelations for the measures used in this study. The principal diagonal of this matrix presents the reliability estimates for all multi-item measures. Because of the large sample size, even the smallest correlation (r=.09) in Table 1 is statistically significant. The three measures of overall pQL were correlated substantially with each other (r's= .50-.54). The correlations among the three measures of domain pQL were also positive, but the magnitude of these intercorrelations was not as great as for the measures of overall pQL (r's= .14-.27). The correlations between domain pQL and overall pQL were intermediate in magnitude (r's= .28-.46) and the two inter-domain fit measures were correlated substantially (r=.49). Finally, there was a positive relationship between inter-domain fit and pQL. Each of the 12 correlations between the six pQL measures and the two inter-domain fit scores was positive and significant at $p < .01$ (r's= .09-.32).

Insert Table 1 about here

Results

In each hierarchical regression testing the effects of inter-domain fit, one of

the three overall pQL measures served as the dependent variable. The two relevant domain pQL measures served as Step 1 predictors and the relevant measure of inter-domain fit was the Step 2 predictor. As shown in tables 2a and 2b, substantial variance in overall pQL could be accounted for with a simple additive model using just two domain pQL measures (24-30% based on work and family domain pQL, and 16-20% based on work and leisure domain pQL). The effort to substantially improve upon this level of prediction with a more complex model incorporating perceived inter-domain interactions was not successful. Work-Family Fit and Work-Leisure Fit both provided significant Step 2 increments in predictions of Life Ratings and Satisfaction, but not Happiness. However, these statistically significant effects were very small; the measures of perceived inter-domain fit never added as much as a one-half of one percent increment to the prediction of overall pQL. It was possible for such small effects to achieve significance because of the large sample used in these analyses.

Insert Table 2 about here

Discussion

The present results are more consistent with the prediction derived from the Kopelman et al. (1984) model of work-family conflict than with the prediction derived from the assumption that additive models are oversimplified. Although statistically significant with the very large sample sizes involved, the predictive increments provided by measures of perceived inter-domain fit were too small to have either theoretical or practical significance. Given the magnitude of these effects, we conclude that the perceptual approach to inter-domain interactions used in the present study was no more successful in improving upon simple additive models than the data manipulation approaches used in previous research (e.g., Andrews & Withey, 1976; Campbell et al., 1976). The results of the present study, in conjunction with

the results of other efforts to test more complex models of overall pQL, suggest that simple additive linear models are quite adequate. Even though intuition may lead many observers to fear that additive models are oversimplified, empirical research indicates that prediction of overall pQL is not substantially improved by various approaches incorporating more than just the sum of domain pQL scores. Given this body of supporting empirical evidence, it seems quite appropriate for pQL researchers to base their theories and empirical research on additive models.

One such line of research worthy of consideration concerns the mediating role of domain pQL. If the effects of perceived inter-domain fit are actually mediated by domain pQL as suggested by Kopelman et al., they would be expected to have no association with overall pQL that is independent of the two relevant domain pQL scores. The results of the present study fit such expectations. Our results suggest that it would be useful for future research to investigate the causal mechanisms through which inter-domain interactions may exert influence on relevant domain pQL responses. Rice et al. (1985) suggest three possible mechanisms that might be investigated in such research: A) the perceived availability of specific outcomes, B) the personal standards used to appraise such outcomes, and C) the subjective importance associated with particular outcomes.

Footnotes

This research was supported by the Organizational Effectiveness Program, Office of Naval Research (Code 4420E), under Contract N00014-84-K-0002; NR 170-964 "Work and the Perceived Quality of Life" (Robert W. Rice, Principal Investigator). This paper was presented at the convention of the American Psychological Association, Los Angeles, 27 August 1985, under the title "Inter-Domain Fit and the Overall Perceived Quality of Life."

The data utilized in this article were made available by the the Inter-university Consortium for Political and Social Research (ICPSR). The data for the 1977 Quality of Employment Survey were collected by Robert P. Quinn and Graham L. Staines of the Survey Research Center, Institute for Social Research, The University of Michigan. Neither the original collectors of the data nor the ICPSR bears any responsibility for the analyses or interpretation presented here.

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

References

Andrews, F.M., & Withey, S.B. (1976). Social indicators of well-being: American's perception of life quality. New York: Plenum Press.

Bradburn, N.M. (1969). The structure of psychological well-being. Chicago:Aldine.

Campbell, A., (1981). The sense of well-being in America: Recent patterns and trends. New York: McGraw-Hill.

Campbell, A., Converse, P.W., & Rodgers, W.L. (1976). The quality of American life. New York: Russell Sage Foundation.

Cooke, R.A., & Rousseau, D.M. (1984). Stress and strain from family roles and work-role expectations. Journal of Applied Psychology, 69, 252-260.

Diener, E. (1984). Subjective well-being. Psychological Bulletin, 95, 542-575.

Kopelman, R.E., Greenhaus, J.H., & Connolly, T.F., (1983). A model of work, family, and interrole conflict: A construct validation study. Organizational Behavior and Human Performance, 32, 198-215.

Michalos, A.C. (1980). Satisfaction and happiness. Social Indicators Research, 8, 385-422.

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., McFarlin, D.B., Hunt, R.G., & Near, J.P. (1985). Organizational work and the perceived quality of life: Toward a conceptual model. Academy of Management Review, 10, 296-310.

Warr, P. (1978). A study of psychological well-being. British Journal of Psychology, 69, 111-121.

Table 1

Means, Standard Deviations, Intercorrelations and Reliabilities for Major Variables

Variables	1	2	3	4	5	6	7	8
1. Life Ratings	(89)							
2. Satisfaction	50	--						
3. Happiness	51	54	--					
4. Work pQL	36	32	33	(76)				
5. Family pQL	46	40	45	14	(86)			
6. Leisure pQL	33	33	28	19	27	--		
7. Work-Family Fit	18	18	13	20	17	32	--	
8. Work-Leisure Fit	18	18	12	20	09	29	49	--
M	5.64	3.09	3.36	.00	4.23	3.14	2.76	2.79
SD	1.05	1.01	1.13	.60	.70	.75	.93	.95

Note. Decimals omitted; Entries on the main diagnoal are reliability estimates (Coefficient Alpha); Work pQL is the sum of Z-scores; With minimum N=1000, all correlations are significant $r > .061$ at $p = .05$ and $r > .082$ at $p = .01$ (two-tailed).

Table 2a

Unstandardized Regression Coefficients and Increments in R^2 for the Effects of Work pQL, Family pQL, and Work-Family Fit on Criterion Measures

Predictors	Criterion Measures: Life Ratings	Satisfaction	Happiness
Work pQL	.510***	.460***	.512***
Family pQL	.625***	.523***	.681***
Work-Family Fit	.060*	.066*	.012
R^2 without Work-Family Fit	.300***	.236***	.277***
R^2 with Work-Family Fit	.303***	.240**	.277***
R^2 Increment due to Work-Family Fit	.003*	.004*	.000

*p<.05, **p<.01, ***p<.001

Table 2b

Unstandardized Regression Coefficients and Increments in R^2 for the Effects of Work pQL, Leisure pQL, and Work-Leisure Fit on Criterion Measures

	Criterion Measures		
Predictors	Life Ratings	Satisfaction	Happiness
Work pQL	.539***	.461***	.531***
Leisure pQL	.384***	.376***	.343***
Work-Leisure Fit	.057*	.056*	.001
R^2 without Work-Leisure Fit	.199***	.179***	.156***
R^2 with Work-Leisure Fit	.201***	.182***	.156***
R^2 Increment due to Work-Leisure Fit	.002*	.003*	.000

*p<.05, **p<.01, ***p<.001

442GP DISTRIBUTION LIST

LIST 1
MANDATORY

Defense Technical Information Center (12 copies)
ATTN: DTIC DDA-2
Selection and Preliminary Cataloging Section
Cameron Station
Alexandria, VA 22314

Library of Congress
Science and Technology Division
Washington, D.C. 20540

Office of Naval Research (3 copies)
Code 442GP
800 N. Quincy Street
Arlington, VA 22217

Naval Research Laboratory (6 copies)
Code 2627
Washington, D.C. 20375

Office of Naval Research
Director, Technology Programs
Code 200
800 N. Quincy Street
Arlington, VA 22217

Psychologist
Office of Naval Research
Detachment, Pasadena
1030 East Green Street
Pasadena, CA 91106

Sequential by Principal Investigator

LIST 13
CURRENT CONTRACTORS

Dr. Clayton P. Alderfer
Yale University
School of Organization and Management
New Haven, Connecticut 06520

Dr. Janet L. Barnes-Farrell
Department of Psychology
University of Hawaii
2430 Campus Road
Honolulu, HI 96822

Dr. Jomills Braddock
John Hopkins University
Center for the Social Organization
of Schools
3505 N. Charles Street
Baltimore, MD 21218

Dr. Sara Yogev
Northwestern University
Graduate School of Management
2001 Sheridan Road
Evanston, IL 60201

Dr. Terry Connolly
University of Arizona
Department of Psychology, Rm. 312
Tucson, AZ 85721

Dr. Richard Daft
Texas A&M University
Department of Management
College Station, TX 77843

Dr. Randy Dunham
University of Wisconsin
Graduate School of Business
Madison, WI 53706

List 13 (continued)

Dr. J. Richard Hackman
School of Organization
and Management
Box 1A, Yale University
New Haven, CT 06520

Dr. Wayne Holder
American Humane Association
P.O. Box 1266
Denver, CO 80201

Dr. Daniel Ilgen
Department of Psychology
Michigan State University
East Lansing, MI 48824

Dr. David Johnson
Professor, Educational Psychology
178 Pillsbury Drive, S.E.
University of Minnesota
Minneapolis, MN 55455

Dr. Frank J. Landy
The Pennsylvania State University
Department of Psychology
417 Bruce V. Moore Building
University Park, PA 16802

Dr. Bibb Latane
The University of North Carolina
at Chapel Hill
Manning Hall 026A
Chapel Hill, NC 27514

Dr. Cynthia D. Fisher
College of Business Administration
Texas A&M University
College Station, TX 77843

Dr. Robert Rice
State University of New York at Buffalo
Department of Psychology
Buffalo, NY 14226

Dr. Benjamin Schneider
Department of Psychology
University of Maryland
College Park, MD 20742

Dr. H. Wallace Sinaiko
Program Director, Manpower Research
and Advisory Services
Smithsonian Institution
801 N. Pitt Street, Suite 120
Alexandria, VA 22314

Dr. Eliot Smith
Psychology Department
Purdue University
West Lafayette, IN 47907

Dr. Harry C. Triandis
Department of Psychology
University of Illinois
Champaign, IL 61820

Dr. Anne S. Tsui
Duke University
The Fuqua School of Business
Durham, NC 27706

Dr. Andrew H. Van de Ven
University of Minnesota
Office of Research Administration
1919 University Avenue
St. Paul, MN 55104

END

FILMED

1-86

DTIC