

AD-A106 381

UNIVERSITY OF SOUTHERN CALIFORNIA LOS ANGELES CENTER--ETC F/G B/9
FORMAL PERFORMANCE APPRAISAL AS AN INTERVENTION FOR THE MANAGER--ETC(U)
SEP 81 A M MOHRMAN N00014-81-K-0048
81-9-(15) NL

UNCLASSIFIED

1 of 1
Access

END
DATE
FORMED
12-81
DTIC

unclassified

LEVEL 1

1

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM	
1. PROJECT NUMBER 4	2. GOVT ACCESSION NO. AD-A106381	3. REPORTS CATALOG NUMBER	
4. TITLE (and Subtitle) Formal Performance Appraisal as an Intervention for the Management of Performance and Quality of Work Life		5. TYPE OF REPORT & PERIOD COVERED Interim	
6. AUTHOR(s) Allen M. Mohrman, Jr. Ph. D Research Scientist		7. PERFORMING ORG. REPORT NUMBER 81-9-(15)	8. CONTRACT OR GRANT NUMBER(s) N-00014-81-K-0048
9. PERFORMING ORGANIZATION NAME AND ADDRESS University of Southern California Graduate School of Business Administration Los Angeles, CA 90007		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS NR-170-928	
11. CONTROLLING OFFICE NAME AND ADDRESS Organizational Effectiveness Research Programs Office of Naval Research (Code 452) Arlington, Va 22217		12. REPORT DATE September 1981	13. NUMBER OF PAGES 46
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified	
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited. Reproduction in whole or in part is permitted for any purpose of the U.S. Government			
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) Performance Appraisal, Quality of Work Life, Management of Performance			
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The function of Performance Appraisal (PA) is conceived as the integration of the individual and the organization. Integration is achieved in two potential ways: 1) by bringing an individual's performance in line with that needed by the organization and by creating organizational experiences that fulfill the needs of the individual. Quality of Work Life (QWL) is the degree to which an indivi- dual's needs are fulfilled. The paper investigates how PA experiences can affect both performance and QWL, by characterizing the PA event (cont. on back)			

AD A106381

DWG FILE COPY

DD FORM 1 JAN 73 1473

EDITION OF 1 NOV 65 IS OBSOLETE
S/N 0102 LF 014 6601

Unclassified
SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

81 10 26 110

1113014

20. (cont.) as having a quality performance to the appraisee. Path analysis is used to see how these characteristics of the PA event intervene in, and change, the overall job performance and QWL of the Appraiser. The feedback of the manager's appraisal is found to have considerable impact on the appraisee's view of his/her performance, achieving a higher integration of management's and the individual's views of performance. The quality of the PA for the appraisee is found to not only directly affect his/her overall QWL but to also be positively related to improvements in appraisee performance as seen by both the appraisee and his/her manager. Thus, the quality of PA promotes integration of the organization and the individual by both improving performance and by increasing QWL. This implies that the quality of the PA process is at least as important an integrative agent as the feedback of appraisal content.

Formal Performance Appraisal as
an Intervention for the Management of
Performance and Quality of Work Life

by

Allan M. Mohrman, Jr.

Research Scientist
Center for Effective Organizations
Graduate School of Business Administration
Los Angeles, California 90007
(213) 743-8765

Accession For	
NTIS GRA&I	X
DTIC TAB	
Unannounced	
Justification	
By _____	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A	

Support for the preparation of this paper was provided through the Office of Naval Research, Organizational Effectiveness Research Programs (Code 452), under Contract Number N00014-81-K-0048. Based on a paper at the Western Academy of Management Meetings, Monterey, California, April 9-11, 1981.

ABSTRACT

The function of Performance Appraisal (PA) is conceived as the integration of the individual and the organization. Integration is achieved in two potential ways: 1) by bringing an individual's performance in line with that needed by the organization and by creating organizational experiences that fulfill the needs of the individual. Quality of Work Life (QWL) is the degree to which an individual's needs are fulfilled. The paper investigates how PA experiences can affect both performance and QWL, by characterizing the PA event as having a quality (qua event) for the appraisee and as carrying a message regarding performance to the appraisee. Path analysis is used to see how these characteristics of the PA event intervene in, and change, the overall job performance and QWL of the Appraisee. The feedback of the manager's appraisal is found to have considerable impact on the appraisee's view of his/her performance, achieving a higher integration of management's and the individual's views of performance. The quality of the PA for the appraisee is found to not only directly affect his/her overall QWL but to also be positively related to improvements in appraisee performance as seen by both the appraisee and his/her manager. Thus, the quality of PA promotes integration of the organization and the individual by both improving performance and by increasing QWL. This implies that the quality of the PA process is at least as important an integrative agent as the feedback of appraisal content.

Formal Performance Appraisal as
an Intervention for the Management of
Performance and Quality of Work Life

PERFORMANCE APPRAISAL AS A PURPOSEFUL ACTIVITY

Research and thinking about performance appraisal has been voluminous. In part, the volumes are filled due to a fragmentation of the PA thinking into narrowly defined issue areas, such as validation of forms, the effects of participation, using training to improve measurement validity, etc. To a certain extent when we focus on these internal PA issues we lose sight of, or make some assumptions about, the larger role of PA itself. For example, while it may be necessary to investigate whether or not we are accurately measuring performance we need to also make sure we understand why we feel the need to measure performance in the first place, and whether those needs are being met.

Given the current pressures on PA practices (such as legal pressures from outside the organization, and pressures for equity and fairness from inside) we find many organizations busily "shoring up" their PA practices (and consultants profiting from the activity). But we also find that many involved in these endeavors have seriously wondered (often to themselves) whether or not PA is worth it, especially considering the host of unanticipated negative consequences that invariably seem to spring up no matter what system for PA is used.

Kane and Lawler (1979, p. 426) present a fairly typical list of possible PA purposes: "...as a basis for promotion and placement decisions, as a criterion against which selection devices and training programs are validated, as a basis for reward allocations, and as a means of providing development-oriented feedback to individuals." This list

indicates that PA is instrumentally central to an array of major human resource practices in organizations. These practices, however, are not ends in themselves. They are each instrumental toward an even more fundamental purpose of all human resource practices in organizations.

The Purpose of PA

According to Katz and Kahn (1978) the fundamental issue to be confronted in any social organization is how to integrate the broadly varying needs of the organization's members with the organization's needs for stability, predictability, and coordinated effort.

The four purposes of PA mentioned above are each instrumental toward the ultimate purpose of integrating the individual and the organization. From the organizational viewpoint, stability, predictability, and coordination are built into the criteria by which performance is appraised. The various uses to which appraisals are put are meant, in different ways, to maximize the fit between actual and ideal performance. This performance control role of PA to ensure organizational needs of stable, predictable, and coordinated behavior is somewhat obvious. Less obvious is the degree to which decisions and practices using PA results can ultimately serve to meet the potentially widely varying needs of the individual performers. This use of PA is seen when organizations attempt to tie performance to compensation. The logic behind such practices is one of exchange. The individual contributes performance which the organization induces through pay, a commodity capable of being converted to a large variety of individual needs. Many times training decisions made on the basis of PA results attend to the expressed needs of the individual as well as that person's performance. In addition, conven-

tional wisdom about selection and promotion stresses the importance of taking the values and needs of the individual into account as well as his or her past performance when determining fitness for future positions. MBO-type approaches to PA, to the extent they involve mutual goal setting between a manager and subordinate, define performance in terms of goals that simultaneously meet organizational and individual needs. Finally, PA feedback itself, while communicating to the appraisee the degree to which his or her performance meets organizational needs, can simultaneously meet the appraisee's needs by letting the individual know where he or she stands, by reducing the appraisee's uncertainty about role definitions and performance criteria, by meeting needs for achievement by developing performance related behaviors and knowledge, etc.

As mentioned previously, the degree to which the individual meets organizational needs can be summarized as performance. In this paper, the degree to which the organization meets the needs of the individual performer is termed quality of work life (QWL). This is entirely compatible with the usage of QWL by others. For example: Suttle (1978; p. 4) defines QWL as "... the degree to which members of a work organization are able to satisfy important personal needs through their experiences in the organization." Performance appraisal is one of the many organizational experiences individuals have, and, as illustrated above, has the potential for affecting the individual's QWL, as well as performance. Because PA is so central to a number of basic human resource practices we might expect it to potentially be quite potent in its effects on both.

This paper investigates the role of formal PA as an intervening event that can have an effect, both on the QWL experienced by an organizational

member, and on the member's performance. We focus on the event itself and do not consider other events (such as salary actions, promotions, training, etc.) which might be connected with it. Potentially included in the PA event are the overall appraisal of performance, feedback and discussion of the appraisal, and performance related decisions such as goal setting, job redefinition, specifications of behavioral changes, etc.

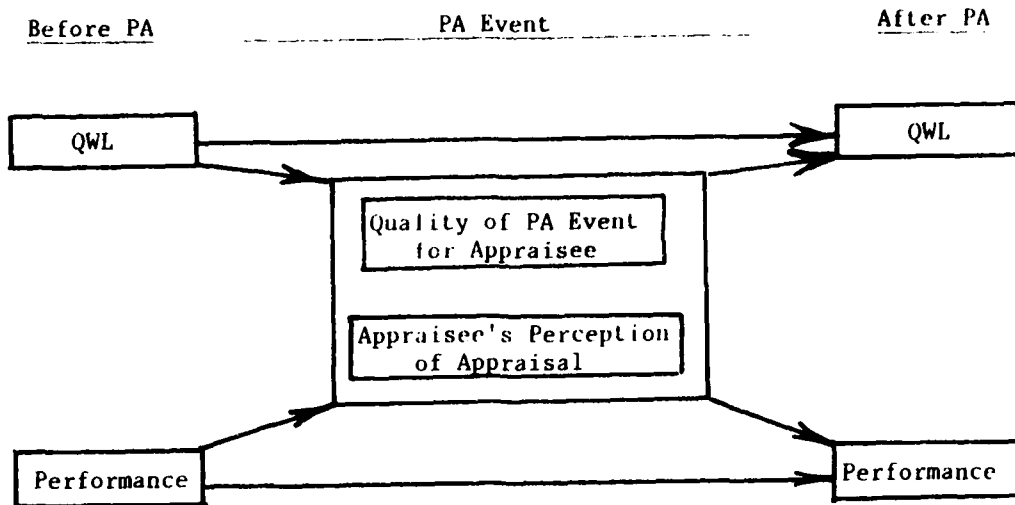
Corresponding to the distinction between performance and QWL we can think of the PA event as having two components: (1) the appraised level of performance itself that expresses the degree to which organizational needs have been achieved and (2) the quality of the performance appraisal as felt by the appraisee (QPA) that expresses the degree to which the appraisee's needs are achieved during the conduct of the PA event.

The PA Event as an Intervention

This paper focuses on the quality of the appraisal process and the level of the appraisal as they are perceived by the appraisee. We are interested in the relative impact of these components of the PA event on the subsequent QWL and performance of the appraisee. But the integrative balance between QWL and performance is a dynamic ongoing aspect of all work situations. The PA event is best thought of, therefore, as an intervention into this ongoing integration. Figure 1 depicts this general model.

Figure 1

The PA Event as an Intervention into Appraiser's Performance and QWL



The PA event is an intervention in that it involves a number of aspects external to the appraisee's ongoing QWL/Performance state. The PA procedures used, for instance, can be formally prescribed by a remote source. The PA process and judgment of the appraiser, as dictated by the forms used, may also be different from the character of the ongoing situations. In other words, the PA event can potentially serve as a break in the continuity of the relationship.

On the other hand, Figure 1 also depicts the likely reality that the preexisting situations will influence the PA event. Certainly the existing QWL will be reflected to some extent in the PA process. When, for instance, appraisers are also supervisors of appraisees we would expect a commonality between the interpersonal components of QWL and the interpersonal process of PA. We would also expect the content of the appraisal to be related to prior performance, and that this prior performance may color the quality of the PA event itself.

The logic implied in the model of Figure 1 raises a number of empirical questions. Does the PA event have any direct effect on QWL and/or performance? That is, does it at all affect the components of integration between the organization and the individual? These are fundamental questions to which the answers should be yes. If not, then we need to search for what functions, if any, PA does serve. If, however, there are direct PA effects on QWL and performance, there are still the questions of the direction of these effects and how and to what degree these effects occur. For instance, when are there effects, if ever, in the direction of increased integration? Finally, what are the comparative effects, if any, of the two components of PA on integration? What is more

impactful: the quality of the PA or the evaluative message in it? This study offers empirical data to answer these questions.

METHOD

Sample and Procedures

The data in this study were collected in nine manufacturing organizations all belonging to a large multinational, multi-industry corporation with products ranging from being highly sophisticated and at the "cutting edge" of technology to established products in mature industries. All sites have substantial histories of PA systems for their "exempt" employees (mostly professionals and managers) and considered PA to be a central personnel function. There was considerable variation across and within the sites, however, in the actual PA system designs and their linkage with other personnel systems, such as manpower planning and compensation. PA forms ranged from being "trait"-based to being MBO in nature. In all cases the immediate supervisor was the sole formal appraiser. The large variation in PA practices is important in this study because it will allow us to tentatively generalize from our findings and not be trapped within a specific set of practices.

Data were gathered by questionnaires designed to audit the organization's PA practices. The respondents were sampled in manager-subordinate pairs. The sample was constructed so that all exempt levels and functions were represented. Within functional and hierarchical strata sampling was random or saturated. Slightly less than half of the subordinates in the pairs were themselves managers. About one-third of the respondents were in engineering. Another one-fourth were in manufacturing. Between four to six percent were in each of the following: marketing, finance, general

management/administration, employee relations, and program management. The remainder classified their functions as "other." On the average, managers and subordinates had worked together for slightly less than 3 years and had mutually engaged in 2 previous performance appraisal events.

Two questionnaires were administered to each member of the manager-subordinate dyad, one before the formal PA event and one afterward. The time between the two questionnaires was approximately four months. The timing of the formal PA event varied across this temporal "window." Figure 2 summarizes this design. For the present study all four questionnaire results are considered a single case in which the unit of analysis is the PA event. Managers and subordinates were instructed to respond with respect to a specific, mutually experienced appraisal event.

Questionnaires were matched by code number. Blank questionnaires were distributed in sealed, addressed envelopes to the respondents by employee relations personnel. Code numbers were assigned and the envelopes sealed by the university-based research team. Completed questionnaires in sealed envelopes were either mailed directly to the researchers or were returned to the employee relations representative for bulk mailing to the researchers.

The original "before" sample totaled 593 pairs. Of that group 519 managers and 530 subordinates returned useable questionnaires. The "after" questionnaires were sent to only these respondents. Of these, 391 managers and 417 subordinates returned useable questionnaires. Less than 300 of these were actual pairs. Follow-up queries revealed that the bulk of non-returned questionnaires were due to turnover of one or the other of the individuals in the selected dyad, usually due to promotion or

Figure 2

STUDY DESIGN

	Before PA	PA	After PA
<u>Manager</u>	Q_{MB}	--	Q_{MA}
<u>Subordinate</u>	Q_{SB}	--	Q_{SA}

N = 145 Manager - Subordinate Dyads

transfer. (The bulk of non responses in the before sample also were due to turnover between sampling and questionnaire administration.) Thus, despite good response rates (75% to 90%) which almost maximized the potential, the effects of normal organizational "churn" in personnel as well as the compounded effects created by needing four questionnaires for a complete case, resulted in a significant loss in numbers. Further loss occurred due to the conservative missing data options necessitated by the analyses. Nevertheless, the characteristics of the final sample of 145 are reasonably representative of the original returns.

Measures

There are three major categories of variables measured in this study: (1) the quality of work life experienced by the employee in his/her immediate job context, (2) the quality of the formal PA event, and (3) judgments of performance level.

Quality of Work Life

Quality of Work Life is measured from the subordinate's point of view on ten dimensions. These dimensions were measured by scales selected to represent the quality of the job and work context in which the appraisee found him/herself. These include areas pertinent to the job itself, the supervisor, the immediate climate, and the appraisee's satisfaction with such things. Table 1 briefly describes the measures of each of the ten dimensions. These ten measures were summed to create an overall measure of the respondent's felt Quality of Work Life. Cronbach alpha values for this overall QWL scale are .84 and .87 for the before and after measures, respectively. This is a respectable level of consistency given the theoretical multidimensionality of the component scales. In addition,

TABLE 1

Composite Measure of Quality of Work Life
(Possible Range = 15 to 105)

1. Supervisory Relations. (alpha = .93)* Seven-item scale comprised of a series of semantic differentials of evaluative items describing employee's relationship with supervisor (e.g., good-bad, friendly-hostile). (Range = 1 to 7)
2. Participativeness of Supervisor's Style. (alpha = .70) A two-item supervisor scale. (From the Michigan Organizational Assessment Questionnaire, Cammann et al., 1979.) (Range = 1 to 7)
3. Openness. (alpha = .44) Two-item climate scale shortened from Roberts and O'Reilly (1977) measuring the degree to which interpersonal communication is open. (Range = 1 to 7)
4. Organization Trust. (alpha = .56) Two-item climate scale measuring degree to which employee trusts the organization (from Cammann, et al.) (Range = 1 to 7)
5. Job Autonomy. (alpha = .64) Three-item job characteristic scale adapted from items identified as stable indicators of job autonomy across multiple samples by Sims, Szilagyi, and Keller (1976). (Range) = 1 to 7)
6. Job Identity. (alpha = .79) Three-item job characteristic scale adapted from items identified as stable across multiple samples (Sims, Szilagyi, and Keller, 1976) for measuring the degree to which the respondent does a whole or identifiable job. (Range = 1 to 7)
7. Job Specificity. (alpha = .68) Four-item scale measuring the degree to which subordinate's job is well specified in terms of duties, priorities, etc. (Range = 1 to 7)
8. Job Knowledge. (alpha = .62) Two-item scale measuring the degree to which subordinate feels he/she knows job duties and what constitutes good performance. (Range = 1 to 7)
9. Job Agreement. (alpha = .80) Two-item scale measuring the degree to which subordinate perceives agreement with supervisor on job duties and performance criteria. (Range = 1 to 7)
10. General Satisfaction. (alpha = .72) Six-item scale measuring satisfaction with following facets of the work context: nature of work, supervisor, the co-workers, pay, promotional opportunities, company. (Schriesheim, 1979.) (Range = 6 to 42)

*Reported alpha values are averages for the before and after measures.

this internal consistency lends some empirical legitimacy to the notion of general QWL experienced in a particular context.

The Quality of PA

The Quality of PA was measured in terms of the subordinate's experience of the PA event. In part, this reflects how the formal procedures which were used affected the subordinate, but it also reflects a large number of nonprocedural interpersonal transactions and interactions which took place during the PA event. Table 2 summarizes the operationalization of the Quality of PA (QPA) as experienced by the subordinate. The overall QPA scale is created in the same manner as was the measure of Quality of Work Life. Items used for QPA are from the subordinator's "after" questionnaire. The Cronbach alpha is .89, again indicating satisfactory internal consistency as well as empirically legitimating the construct of a global quality associated with a certain experience.

Performance Level

For any job, there are multiple dimensions upon which performance can be measured. In the organizations of the present study, the PA forms in use specified multiple criteria. These criteria, however, were not consistent from form to form, from site to site, or from job to job. With respect to formal PA, one can expect that users of a PA system will, in part, tend to articulate performance level in the terms prescribed by the forms. Although differing with regard to component criteria, most forms in the organizations participating in this study, as well as in many other organizations, ultimately distill performance levels on multiple criteria into a single summary indicator of performance level. The perceptual

TABLE 2

Scales Summed to Measure Quality of Performance Appraisal
(Possible range = 9 to 63)

1. Clarity of Criteria. (alpha = .68) Scaled from three semantic differential items which indicate the degree to which the PA criteria were unambiguous to the subordinate, e.g., objective, predictable, and clear. (Range = 1 to 7)
2. Fairness of Criteria. (alpha = .77) Scaled from three semantic differential items which measured the degree to which the PA criteria used were seen by the subordinate to be relevant to the job, familiar, and fair. (Range = 1 to 7)
3. Ownership of PA. (alpha = .78) A three-item scale using selected items from Greller's (1978) scale measuring the degree to which subordinate felt responsibility for how PA went. (Range = 1 to 7)
4. Contribution to PA. (alpha = .79) A three-item scale also selected from Greller's (1978) scale which measures actual behavioral contribution to the PA in terms of suggestions, goals, etc. (Range = 1 to 7)
5. Affective Response to PA. (alpha = .92) A scale of 10 semantic differential items all indicating emotional, effective reaction of the subordinate to the PA episode, e.g., pleased, enthused, energized. (Range = 1 to 7)
6. Utility of PA. (alpha = .87) A three-item scale selected from Greller's (1978) scale which measures the degree to which subordinate felt the PA helped him/her understand job better. (Range = 1 to 7)
7. Satisfaction with PA. (alpha = .85) A three-item scale also selected from Greller (1978) designed to measure the subordinate's satisfaction with the PA review. (Range = 1 to 7)
8. Quality of Feedback Discussion. (alpha = .89) A five-item scale of semantic differentials. High scores indicate a relaxed, friendly, open, trusting, constructive feedback discussion. (Range = 1 to 7)
9. Depth of Feedback Discussion. (alpha = .79) Two-item scale of semantic differentials. High scores indicate perception of a well-considered, in-depth discussion. (Range = 1 to 7)

measures of performance level used in this study were designed to reflect this summary measurement of performance. Table 3 presents the measures of overall performance level which were used. "Before" measures were made using the "before" PA questionnaire. The "after" questionnaire asked both for perceptions at the time of the questionnaire and retrospectively for perceptions at the time of the PA.

Their categorizations of performance level meant that these items could be somewhat insensitive to performance changes that might be perceived to occur in the relatively short time between the PA and the "after" questionnaire. Therefore, perceptions of performance improvement since PA were also measured on the "after" questionnaire. These items are also presented in Table 3. Note that the items are written so that the respondents are reporting only performance changes which are, in their minds, attributable to PA.

Analysis

The longitudinal sequencing of the data and the assumed dynamic of PA as an intervention into an ongoing stream of experience together create a situation most appropriately analyzed using path analysis techniques. Path analysis does not demonstrate or discover causal relations, rather it starts with a set of causal assumptions and analyzes a sample of empirical measurements of variables in order to estimate the relationships among those variables, assuming the validity of the original causal assumptions. The validity of path analysis results rests as much on the legitimacy of the causal assumptions as it does on the qualities of the sample and the data.

TABLE 3

Performance Measures

APPRAISALS OF PERFORMANCE LEVEL

Each of these stems was completed using the response scale below.

Appraisee's Perception of Performance (Before and after PA)

"At the present time, my performance. . ."

Appraisee's Perception of Manager's Appraisal (during PA)

"Overall, my supervisor's appraisal of my performance was that it . . ."

Manager's Appraisal (before and after PA)

"At the present time, my subordinate's performance . . ."

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
is/was below minimum standards	meets/met minimum standards	exceeds/ exceeded minimum standards	meets/met normal standards	slightly exceeds/ exceeded normal standards	exceeds/ exceeded normal standards	far exceeded normal standards	exceeded normal standards

PERCEPTIONS OF PERFORMANCE IMPROVEMENT

Appraisee's Perception of Performance Improvement

"As a result of my performance appraisal, my performance has . . ."

Manager's Perception of Performance Improvement

"As a result of the performance appraisal, my subordinate's performance has . . ."

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
fallen off considerably	fallen off	fallen off slightly	stayed about the same	slightly improved	improved	improved very much	

Figure 3 summarizes the causal order assumed in the present analysis. The logic is clearly temporally based and was explained earlier. The figure (working from left to right) implies a series of regression equations in which all variables to the left of each bracket are considered to be independent causes of the dependent variables stemming from that bracket. For example, Quality of PA and Appraiser's Perception of Manager's Appraisal are regressed on the "before" measures of QWL, Appraiser's Perception of Performance, and Manager's Perception of Performance to determine the degree to which the three have an impact on each.

Unexplained variance is assumed to be due to unmeasured exogenous variables. The three independent variables in the first regression are not assumed to be causes of one another, although they may well have antecedents in common and therefore be correlated.

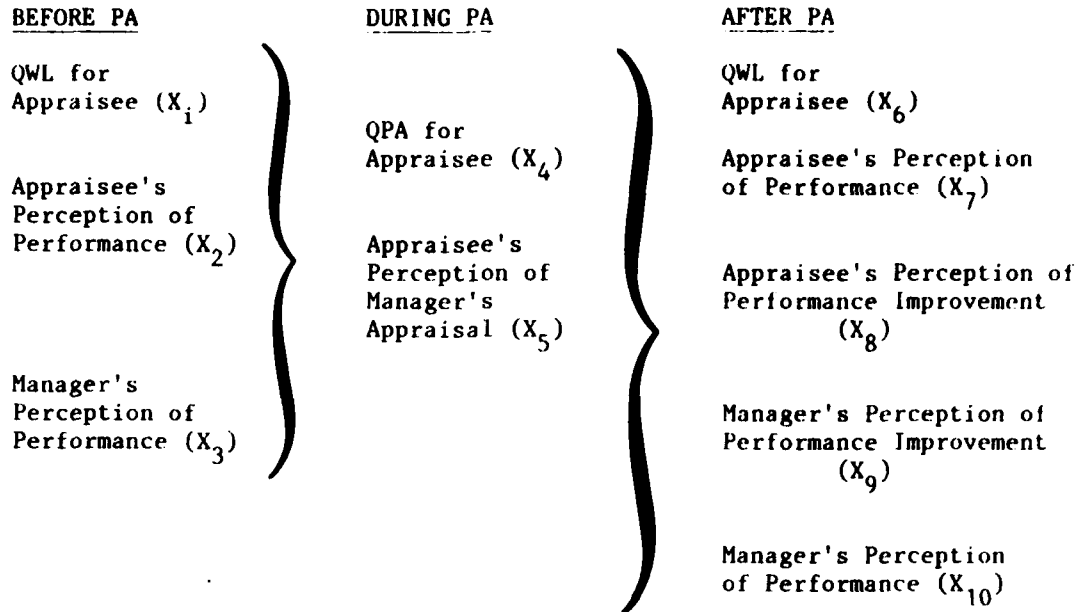
Each of the "after" variables is then regressed on the two PA variables as well as the original three independent variables to determine the degree to which each is due to all five directly. (The degree to which each "after" variable depends upon the original three indirectly can be determined by its direct relationship to the PA variables and the impacts of the original three variables as estimated in the first regression.)

RESULTS

Table 4 presents the means and standard deviations of the measures used in these analyses. Table 5 is a matrix of the zero-order correlations among these measures. Of particular interest in Table 5 are the concurrent intercorrelations among the QWL and performance variables.

Figure 3

ASSUMED CAUSAL ORDER
UNDERLYING REGRESSIONS FOR PATH ANALYSIS



$$X_4 = p_{41}X_1 + p_{42}X_2 + p_{43}X_3 + p_{4\ell}L_4$$

$$X_5 = p_{51}X_1 + p_{52}X_2 + p_{53}X_3 + p_{5\ell}L_5$$

$$X_i = p_{i1}X_1 + p_{i2}X_2 + p_{i3}X_3 + p_{i4}X_4 + p_{i5}X_5 + p_{i\ell}L_i$$

where $i = 6$ to 10

All p_{nm} , $m = 1$ to 5 , $n = 4$ to 10 , are standardized beta coefficients.

All $p_{j\ell}$, $j = 4$ to 10 , are calculated as $p_{j\ell} = \sqrt{1-R_j^2}$

where R_j^2 is total variance explained in that regression equation.

TABLE 4

Mean and Standard Deviations of Variables
(N = 145)

<u>VARIABLES</u>	<u>MEAN</u>	<u>STANDARD DEVIATION</u>
<u>Before PA</u>		
1. QWL for Appraisee	74.44	12.50
2. Appraisee's Perception of Performance	5.77	.81
3. Manager's Perception of Performance	5.23	1.08
<u>During PA</u>		
4. Quality of PA for Appraisee	41.87	9.18
5. Appraisee's Perception of Manager's Appraisal	5.44	1.09
<u>After PA</u>		
6. QWL for Appraisee	74.61	12.41
7. Appraisee's Perception of Performance	5.83	.89
8. Appraisee's Perception of Performance Improvement	4.46	.94
9. Manager's Perception of Performance Improvement	3.32	.84
10. Manager's Perception of Performance	5.39	1.04

TABLE 5

Zero-Order Correlation Matrix of Variables
(N = 145)

	Before PA			During PA		After PA				
	1	2	3	4	5	6	7	8	9	10
<u>Before PA</u>										
1. QWL for Appraisee	--									
2. Appraisee's Perception of Performance	-.01	--								
3. Manager's Perception of Performance	.12	.20*	--							
<u>During PA</u>										
4. Quality of PA for Appraisal	.61*	-.08	.18	--						
5. Appraisee's Perception of Appraisal	.28*	.13	.48*	.40*	--					
<u>After PA</u>										
6. QWL for Appraisee	.77*	-.05	.17	.73*	.28*	--				
7. Appraisee's Perception of Performance	.06	.27*	.41*	.03	.41*	.03	--			
8. Appraisee's Perception of Performance Improvement	.25*	-.18	-.03	.37*	.04	.29*	-.09	--		
9. Manager's Perception of Performance Improvement	.00	-.06	-.07	.10	-.10	.01	-.20*	.14	--	
10. Manager's Perception of Performance	.10	.18	.61*	.19	.37*	.13	.36*	-.11	.01	--

Among the "before" measures only the two performance measures were significantly intercorrelated (.20). Despite the fact that they are supposed to be measures of the same performance their correlation is low. QWL and performance are not correlated concurrently.

The "after" measures show similar intercorrelation patterns although the size of the correlation between the two performance measures is .36, indicating increased agreement between managers and appraisees about performance. The appraisees' perceptions of improvement in performance were positively correlated with their QWL ($r=.29$) and the appraisees' self-appraisals negatively correlated ($-.20$) with the managers' perceptions of performance change.

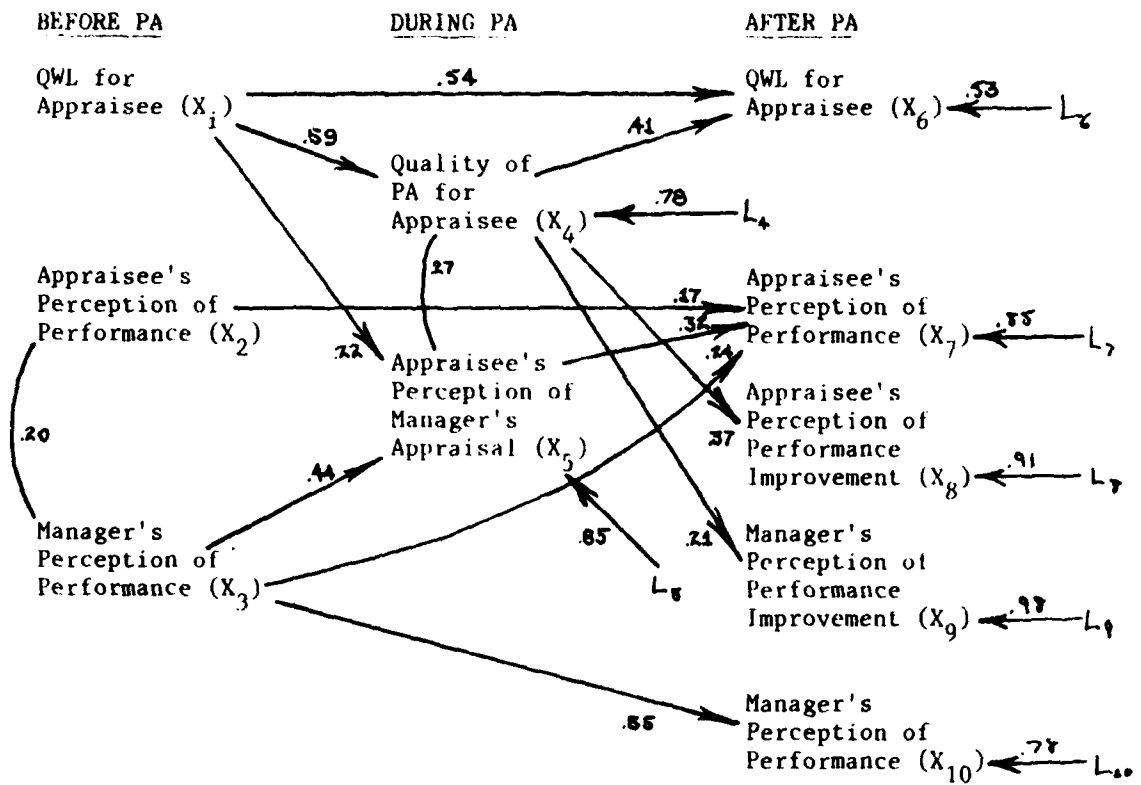
Figure 4 presents a path diagram depicting the results of the regression equations outlined in Figure 3. The path coefficients associated with right-pointing arrows in Figure 4 are significant beta coefficients from the appropriate regression equations enumerated in Figure 3. Arrows representing statistically insignificant betas ($p>.05$) have not been depicted. The path coefficients depicting the effects of latent, residual variables, L_i , are attached to left pointing arrows. The curved lines represent correlations between concurrent variables. The association between X_2 and X_3 (.20) is the zero-order correlation already mentioned. The association between X_4 and X_5 (.27) is the part of their zero order correlation (.40) not accounted for by path coefficients from common antecedent variables [i.e. $.27 = .40 - (.22)(.59)$]

DISCUSSION OF RESULTS

We will discuss the results depicted in Figure 4 moving from left to right, reflecting the logic underlying the analysis.

Figure 4

Path Results Describing PA as an Event Intervening in the Performance and QWL of the Appraisee



Quality of PA and Appraiser's Perception of Manager's Appraisal

The overall quality of the PA process is significantly influenced by ongoing QWL ($p_{41}=.59$). (The effect on QPA by the level of the manager's appraisal almost reached statistical significance, $p_{43}=.13$.) On the other hand, the Appraiser's Perception of the Manager's Appraisal is significantly affected not only by the Manager's prior Appraisal ($p_{53}=.44$) but also QWL ($p_{51}=.22$). There is also a degree of common variation between QPA and the Appraiser's Perceived Appraisal ($(.27)^2 = 7.3\%$) indicating that both are partially explained by (unmeasured) occurrences taking place during the PA event.

These results indicate that although there is a slight tendency for the Manager's Perception of Performance to impact on the Quality of PA felt by the appraiser, the only significant impact is from prior QWL. The impacts of QWL and the Manager's Perception of Performance on the Appraiser's Perception of Manager's Appraisal both achieve significance. The Appraiser's Perception of Performance does not appear to affect his/her Perception of the Manager's Appraisal. In the process of the PA event there is some degree to which QPA and the perceived level of the appraisal have a common basis, other than the fact that each is partially explained by both the prior QWL and Manager's Appraisal of Performance.

Apparently the quality and message of the appraisal event cannot be entirely separated; although they are distinguishable, as are the impacts of their antecedents. The results illustrate the earlier assertion that the PA event is one which simultaneously engages both QWL and performance issues, potentially intervening in the balance between the two. This is especially pertinent since the concurrent correlations reveal that at any

point in time an organizational member's QWL is independent of that member's perceived performance. Neither QPA nor the perception of the Manager's Appraisal is impacted by the Appraisee's own perception of performance.

The following sections discuss the effects that PA quality and message have on subsequent QWL and performance.

PA Effects on QWL of the Appraisee

At first glance, although there is considerable continuity with the prior state of QWL ($p_{61}=.54$) the path diagram of Figure 4 seems to indicate a substantial PA impact on QWL ($p_{64}=.41$). In fact, however, this effect is not completely an intervening one. Since QPA itself is heavily influenced by prior QWL, QPA is primarily an indirect path by which QWL perpetuates itself. There is, however, some effect due to unexplained QPA variation. Interestingly, the Appraisee's Perception of the Manager's Appraisal had no effect on QWL for the Appraisee. This finding indicates two possibilities: either (1) the level of the Manager's Appraisal, whether high or low, has a lesser impact on the subordinate's needs than is commonly believed; or (2) managers "couch" feedback of performance level so that the potential effects of that feedback are moderated by the way they are couched and given meaning by the context in which they are presented. The two possibilities are not mutually exclusive--the latter being a potential explanation for the former--and the data suggest that both may be operating to some extent. Nevertheless, the major impact on QWL by PA is due to the quality component of the appraisal event. How the feedback of performance level is conducted is more important than what it is. Potential positive QWL effects of feeding back appraisals of high performance levels can be nullified by low QPA and vice versa.

PA Effects on the Appraiser's Perception of Performance

The ways in which PA affects the appraiser's perception of Performance parallels its impact on QWL. Prior QWL and the Quality of the PA event have no direct effect on the Appraiser's Perception of Performance. Other than the indirect effects of prior QWL through its impact on the Appraiser's Perception of the Manager's Appraisal, the Appraiser's Perception of Performance is impacted by the prior perceptions of the appraiser ($p_{72}=.17$) and the manager ($p_{73}=.24$) and by the Appraiser's Perception of the Manager's Appraisal ($p_{75}=.32$).

The relative weightings of these three influences are important. Appraisers apparently based their self-appraisals primarily on the message they received through PA. Stubborn adherence to one's original self-appraisal--through defensiveness or otherwise--is seemingly not a strong tendency in the sites studied. It is clear from these results that in an organizational context with an established and accepted PA tradition PA does contribute significantly to the integration of the individual and the organization by bringing the individual's own evaluation of performance more in line with that of the organization (assuming, of course, that managers reflect the organization's perspective).

PA Effects on Performance Improvement

Perceptions of Performance Improvement due to PA were not influenced by perceived appraisal levels but rather by the Quality of PA. Only the impact of the QPA on the Appraiser's Perception of Performance Improvement ($p_{84}=.37$) can be considered a substantial effect. QPA impact on the Manager's Perception of Performance Improvement ($p_{94}=.21$) achieved significance as a path coefficient but the total amount of variance

explained was insignificant. Nevertheless there is a definite tendency for QPA to be positively related to performance improvement as perceived by both participants. Presumably these apparently shared perceptions reflect a reality of performance change. That QPA has simultaneous positive effects on both QWL and Perceptions of Performance Improvement illustrates most clearly the integrative role performed by PA. Increases in QWL for the appraisee can be accompanied by perceived performance improvement because of PA.

PA Effect on Manager's Perception of Performance

The Manager's Perception of Performance shows no effect from PA. This, in part, indicates the essentially unilateral nature of PA as usually practiced in organizations. While PA has a definite effect on the Appraisee's Perception of Performance it does not change the manager's perception. Integration is served by evidently moving the appraisee's judgment of performance closer to those used by management. Any actual performance change implied in the previous section is apparently not large enough, or too recent, to be picked up in the Manager's Perception of Performance.

CONCLUSION

If QWL and appraisal of performance can be considered to reflect values of the individual and the organization, respectively, then the results clearly show that PA events can serve to simultaneously increase the value of both and, thereby, achieve higher integration between the individual and the organization. This simultaneous effect is achieved through two aspects of the PA event: the quality of the event itself for the appraisee and the message communicated to the appraisee about the

level of performance. These two components are to some degree inseparable (i.e., the appraisal level communicated and the felt quality of the appraisal have some common basis). Each is differentially affected by prior QWL and the manager's prior Perception of Performance and each differentially influences the after PA variables. The communication of the Manager's appraisal integrates the individual and the organization primarily by changing the appraisee's self appraisal to be more in line with the manager's. The quality of the PA event affects this integration by simultaneously having direct positive impact on both subsequent QWL and subsequent improvement in performance. The two components of PA feedback have differential independent effects. The findings reveal that independent of the quality of the PA event PA feedback will serve to bring the appraisee's self-appraisal more in line with the manager's. Independent of the appraisal level the Quality of PA/or the appraisee directly affects both the general QWL for the appraisee as well as subsequent improvement in appraisee performance.

BIBLIOGRAPHY

- Cammann, Cortlandt; Mark Fichman; G. Douglas Jenkins, Jr.; and John R. Klesh, "The Michigan Organizational Assessment Questionnaire," mimeo, University of Michigan, Institute for Social Research, 1979.
- Greller, M. M., "The Nature of Subordinate Participation in the Appraisal Interview," Academy of Management Journal (December 1978) 21(4), 646-658.
- Kane, Jeffrey S., and Edward E. Lawler, III, "Performance Appraisal Effectiveness: Its Assessment and Determinants" in Research in Organizational Behavior, Volume 1, Barry Stow (ed.), (Greenwich, Connecticut: JAI Press, Inc., 1979) 425-478.
- Katz, D., and R. L. Kahn, The Social Psychology of Organizations, (New York: John Wiley & Sons, 1978).
- Kerr, S., and J. M. Jermier, "Substitutes for Leadership: Their Meaning and Measurement," Organizational Behavior and Human Performance, (1978), 22, 375-403.
- Latham, G. P. and K. N. Wexley, Increasing Productivity Through Performance Appraisal, (Reading, Mass: Addison-Wesley, 1981).
- Lawler, E. E., Pay and Organization Development, (Reading, Mass: Addison-Wesley, 1981).
- McLuhan, Marshall, Understanding Media: The Extensions of Man (New York: Signet Books, 1964).
- Maier, N. R. F., The Appraisal Interview, (New York: Wiley, 1958).
- Moos, R., and Insel, P. H., "The Work Environment Scale," Family Work and Group Environment Scales Manual (Palo Alto: Consulting Psychologists Press, Inc., 1974).
- Roberts, K., and C. O'Reilly, "The Group Structure, Communication, and Effectiveness in Three Organizations," Journal of Applied Psychology, (1977) 62(6), 674-681.
- Sims, H. P., A. D. Szilagyi, and R. T. Keller, "The Measurement of Job Characteristics," Academy of Management Journal (June 1976) 19(2), 195-212.
- Suttle, J. L., "Improving Life at Work--Problems and Prospects," in Improving Life at Work, J.R. Hackman and J.L. Suttle, eds. (Santa Monica, California: Goodyear Publishing Company, Inc., (1977).
- Walton, R. E., "Improving the Quality of Work Life," Harvard Business Review, (May-June 1974) pp. 12ff.

