THE LOCI OF WORK SATISFACTION: JOB, INTERACTION AND POLICY

by

Ralph Katz
and
John Van Maanen

October 74

WP #741-74
THE LOCI OF WORK SATISFACTION: JOB, INTERACTION AND POLICY

by

Ralph Katz
and
John Van Maanen

October 74

WP #741-74

1 A paper presented at the NATO Conference on Personal Goals and Work Design - August 1974. The conference reports will be published by John Wiley in August of 1975 under the editorship of Dr. Peter Warr.
I. INTRODUCTION

There is perhaps no other area in the social sciences fraught with more ambiguity, conflicting opinion or methodological nuance than that of work satisfaction. Yet, paradoxically there are few areas more researched. Even a casual glance at the voluminous literature should be enough to convince the most hardened generalist that work satisfaction is indeed a complex, cumbersome and many sided concept for which simple schemes do not exist.

This is not to say that the substantive issues to which work satisfaction refers are imperceptible or intractable, for assuredly there are no perfect jobs and few that could not benefit from increasing concern and studied change—from the lofty professional to the most menial of occupations. Certainly, one need not look far to discover debasing, counterproducing, alienating, or just plain dull and irrational work. However, despite years of study, there is little agreement concerning the applicability of any particular theory of work satisfaction across even a modest range of tasks, organizations, and work settings.

Fundamentally, the difficulties are conceptual. Work satisfaction is treated for the most part as if it were unidimensional, somehow amenable to measurement and representation by a single number. And a potpourri of theories exists from which one may choose to locate the source or sources of satisfaction. For example, satisfaction may be seen to be contingent upon: the individual's idiosyncratic internal need structure; the specific set of tasks performed by the individual; the interpersonal norms and values generated in the workplace; the managerial processes that direct activities; the organizational policies regarding rewards; and so on including all combinations of the above. Hence the dilemma—either the satisfaction formulation is too general, without practical implication; or the calculus is too specific, misleading in diverse work situations.
Moreover, research in the area is usually characterized by loose definition, duplicity, and a sort of swashbuckling, ad hoc correlational approach in which statistical significance replaces social significance. From this morass, support for virtually any position regarding the determinants of satisfaction can be marshalled—the proverbial dustbowl of empiricism. It is not surprising therefore that the applications that characterize the field are often exaggerated, atheoretical and faddish in the extreme. (For a similar view, see the useful critiques presented by Strauss [1963], Carey [1967], Hackman [1972], Perrow [1972], and Gomberg [1973].)

Of late, job redesign efforts have been heralded with almost messianic fervor as the solution to a purported widespread discontent with routinized, meaningless, and dead-end jobs. Earlier, democratization and humanization of the work milieu was the solution to what was regarded primarily as a morale problem. And, in the now much ridiculed Frederick Taylor era, financial rewards and the standardization of work procedures were viewed as the solution to a productivity based satisfaction problem. Although the influence of these latter two approaches has waned over time, both are very much with us today.

These three points of view can be labelled for our purposes 'human resources,' 'human relations,' and 'human rewards,' respectively. They represent the major research and theoretical paradigms popularized in the United States over the past sixty or so years. However, evolutionary progress toward understanding the nature and consequences of work satisfaction seems dubious, for no one model is applicable to all settings nor has any one framework subsumed the others. Furthermore, each tends to isolate and concentrate reform around a rather narrow set of conceptual variables consistent with the overall perspective of a particular paradigm. To a large degree, applications-oriented researchers in the field resemble Pirandelian players, each trapped within a programmed role, offering pat solutions
and assuming problem dimensions.

Without addressing in detail particular analytic perspectives on work satisfaction such as Morse (1953), Dubin (1956), Herzberg (1959), Adams (1965), Porter and Lawler (1968), Smith, Kendall, and Hulin (1969), Hulin and Blood (1969), Locke (1970) and others, it seems clear that the applicability of any approach depends on situationally specific, individually divergent issues. And as Crozier (1964) and Karpik (1968) have demonstrated so insightfully, satisfaction cannot be viewed in isolation from the sociology of the complex institutional settings to which satisfaction reports are directed.2

If the ultimate purpose of our theorizing is the construction of better organizations where satisfaction is one of the evaluative yardsticks (along with effectiveness, adaptiveness and so on), then it is indeed imperative to determine how different design relevant features (i.e. work structures, reporting relationships, pay systems, etc.) affect specific aspects of work satisfaction. At a very general level, the important design features coincide with elements central to the three paradigms of human resources, relations and rewards. In other words, the problem revolves around the determination of which, if any, of these models best describes the sources of satisfaction and then to translate the theoretical implications of such findings into practical programs. It is to this end that the research reported here was directed.

Specifically, in this study we attempt to move away from traditional conceptualizations of work satisfaction (i.e., unidimensional and individualistic) by demonstrating empirically the situationally dependent nature of the concept—denoting clearly the linkages attaching satisfaction attitudes to workaday realities. Thus we shift mental gears and metaphorically depict work satisfaction as a multidimensional concept best idealized not by a single level, but rather by a
characteristic shape. It is easy to imagine for instance, an organizational surround wherein two employees report identical levels of satisfaction yet experience their jobs in radically different ways. One employee may be influenced predominantly by the salary and advancement aspects of the job while the other may be most influenced by the challenge, action and variation features of the job. In such a situation, the two employees have the same level of work satisfaction even though each have very different shapes.

In the deductive argument to follow, a tripart locus of work satisfaction is sketched out involving job property, interaction context and organizational policy variables. Each of the loci is shown to be analytically distinct and related to conceptually objective (and, not incidentally, manipulatable) design variables. From this formulation a substantially different notion of transnational change programs designed to influence work satisfaction emerges.

METHODOLOGY

SAMPLE: Four governmental organizations (two municipalities, one county and one state) participated in the study. These governments represent a rather loose confederation of various service departments operating within a defined geographical territory (e.g. police and fire departments, public utilities, hospitals, social work agencies, sanitation departments, planning departments, etcetera). Within each government a stratified random sample was determined—of the total sample of 3,500 selected employees, 88% participated in the study. The stratification was based on proportionate sampling from eight Equal Employment Opportunity Commission (EEOC) job categories representative of the mix of occupations available in public sector organizations—administrative, technical,
professional, protective service, paraprofessional, clerical, skilled craft and maintenance. For further discussion of the sample characteristics, see Van Maanen and Katz, (1974).

**INSTRUMENT:** A survey questionnaire consisting of some 300 items was administered in February, 1974 to groups of public employees ranging from five to fifty persons. For the present analysis, we shall confine our remarks to three portions of the instrument: (1) the Minnesota Satisfaction Questionnaire developed by Dawis et al. (1967); (2) a truncated version of the Yale Job Inventory objective design measures regarding various contextual properties of the work situation surrounding the respondent; and (3) items related to specified design variables. A brief explanation follows.

(Work Satisfaction) A modified version of the Minnesota Satisfaction Questionnaire (MSQ) was used to measure the level of employee satisfaction. This instrument, comprised of 100 items, was divided conceptually into 25, four item indices, each related to a specific aspect of satisfaction (e.g. recognition, supervision, compensation, security, promotion, and so on). Overall satisfaction was defined simply as the mean of all items. Each item asked the respondent to indicate on a five-point, Likert-type scale [ranging from very satisfied (5) to very dissatisfied (1)] how the respondent presently felt about a particular work feature. The instrument was selected among a number of alternative questionnaires primarily because we wanted to span as wide a variety of work characteristics as possible. For a recent use and analysis of this instrument, see Wanous (1974).

(Design Characteristics) A crucial factor in this study was to determine the "objective" characteristics of the jobs in which the respondents were assigned. To accomplish a portion of this task, the Yale Job Inventory was utilized. The items selected provide a reasonably accurate (insofar as self, peer, supervisor, and outside observer ratings of the job converge) description of five so-called
core-dimensions: Skill Variety (the degree to which the job requires different activities calling for the use of different skills); Task Identity (the degree to which the job requires the completion of a whole process); Task Significance (the degree to which the job has a perceivable impact on other people); Autonomy (the degree to which the job provides an employee with freedom, independence and discretion in scheduling and carrying out work assignments); and Feedback From Task (the degree to which an employee receives information from the job as to the effectiveness of his work). Based on these five dimensions, a Motivating Potential Score (MPS) for each job was calculated \( MPS = \left( \frac{\text{skill variety} + \text{task identity} + \text{task significance}}{3} \right) \times \text{autonomy} \times \text{feedback from job} \). Each of the above indices (with the exception of the MPS) consists of the mean response to at least three different seven-point, Likert-type items (i.e., each item asked the respondent to indicate the extent to which one of the above specified attributes was present or absent on one's job). For a further description of the Job Inventory, seeHackman and Oldham (1975).

(Other Design Factors) Several items concerning other presumably objective design characteristics of the respondent's work experience were included in the instrument package. These items concerned authority, work assistance, pay, promotion, communications and the like. These design items were not thought to be inclusive of all relevant objective organizational features. Rather they were selected on the basis of covering different but representative areas that might affect employee attitudes. Four of these properties are utilized in this paper; (1) Agent Feedback: the degree to which the employee receives clear information on his performance effectiveness from co-workers or supervisors (see Hackman and Oldham, 1975); (2) Colleague Assistance: the degree to which the employee receives (or provides) sufficient help in carrying out day-to-day responsibilities; (3) Promotion Fairness:
the degree to which advancement procedures in the employee's department are standardized (i.e., apply equally to all employees); (4) Pay Equity: the percentage difference between what the employee is paid presently and what others performing the same job outside the organization are paid. With the exception of pay, seven-point, Likert-type items similar to the Job Inventory were used for measurement.

DATA ANALYSIS: PRELUDE TO RESULTS: There are two critical data analysis problems. First, the diverse elements of expressed satisfaction must be represented parsimoniously as possible. Second, the affective elements must be shown to be influenced significantly by the various design features of the organizational environment. Only in such a manner can we perhaps clarify the obscurity surrounding the use of the human resources, relations, and reward models.

Two separate non-metric methodologies (hierarchical clustering and multidimensional scaling) are used conjunctively to address the first problem—deriving an economical satisfaction configuration. The clustering technique—Johnson's (1967) hierarchical algorithm—is used to reveal just how the different satisfaction items grouped together. The multidimensional scaling routine—TORSCA, as described by Torgerson (1965)—is used to reveal the underlying structure of the response set (i.e., the dimensions elicited by satisfaction items). In other words, clustering details an evaluative set which is constructed over a scaled perceptual set.

Operationally, the responses to MSQ are combined to form an overall 25 by 25 correlation matrix to which the Johnson scheme is applied in order to uncover compact clusters. New satisfaction measures representing each of the clusters were calculated simply by averaging the items located within each cluster. In order to denote where the dimension-free clusters reside in psychological space,
the same correlation matrix is used to scale the items into a dimensionalized Euclidean field.

Since there have been numerous factor analytic studies based on satisfaction data, it is important to denote the advantages of these procedures before continuing. Unlike factor analysis, both the scaling and clustering algorithms or non-metric (that is, input data are not assumed to be ordered in a ratio or interval fashion) and there are no linearity requirements. The correlations in the input matrix are treated simply as measures of the similarity between items. The derived solution is therefore invariant for any monotone transformation of the original correlation matrix (that is, one need know only that a given correlation is greater or less than another). Furthermore, the clustering technique develops dimension-free hierarchies within clusters. And one does not have to determine dimensions before constructing clusters, now does one have to determine whether dimensions are orthogonal, oblique, or whatever. Finally, non-metric procedures typically yield fewer dimensions in their final solutions than metric alternates thus providing greater simplicity.

Once the attitude clusters are located and defined, the second problem can be solved by use of canonical and partial correlation. Canonical correlations furnish a relational measure between two component sets (each comprised of two or more variables) -- in this case, measures from the discovered satisfaction clusters and measures from the objective or design variables previously described. Partial correlations, on the other hand, allow various elements in the two sets to be isolated while controlling on the remaining variables. For a further discussion of these techniques see, McVemir (1969 and Blalock (1970).
FINDINGS

The results of the satisfaction mapping routines are presented diagrammatically in Figure 1. The horizontal and vertical axes represent a two-dimensional solution of the scaling algorithm and the contour lines drawn around various items portray the clustering solution. It is important to note that the two-dimensional solution derived from the multidimensional scaling algorithm reproduces clearly the original relationships uncovered by the hierarchical groupings. Thus, two-dimensions are sufficient to display the embedded clusters revealed by the Johnson procedure. Solution spaces of higher dimensionality were calculated but did not substantially improve the goodness of fit.

The horizontal dimension in Figure 1 ranges from items dealing with social service, independence, and challenging work to items concerning pay, advancement, and training. This approximates apparently the intrinsic and extrinsic varieties of satisfaction. The vertical axis is somewhat more problematic. The items range from the pleasantness of working conditions and security at one end of the continuum to supervision and feedback at the other. Intuitively, this resembles something akin to a temporal based dimension—the long-run, short-run element involved in work satisfaction. This interpreted psychological map asserts consequently that individuals, when presented with this stimulus set comprised
of satisfaction items (MSQ), distinguish perceptually among those items that are intrinsically or extrinsically satisfying and those that are pertinent in the long or short run.

Three distinct clusters are depicted in Figure 1 via the contour lines enclosing certain satisfaction items. The hierarchical nature of the clustering is depicted by contours embedded within other contour zones (shaded areas). Thus, the three major clusters—what we will refer to as loci—are represented by the three non-embedded contours. Except for a very few items that could not be grouped mathematically or meaningfully, all items fall into one of the three clusters—labelled job properties, interaction features and organization policies. Importantly, the items within each locus correspond to the paradigmatic variables of the human resources (job properties), human relations (interaction features), and human rewards (organization policies) models discussed previously.

It is important to specify that the satisfaction mapping can not be used to classify individuals as being either high or low on any dimension. Nor does it imply that an individual derives his satisfaction primarily from characteristics unique to one end of a dimension. Rather, it is the loci, stretched out along both dimensions, that capture the measure and shape of one's reported satisfaction. Whether or not the three loci are conceptually distinct, arranged in a dominant order or are related homomorphically to design features of the environment are questions to which we now turn.

Table 1 suggests that each design feature of the studied organizations is related to overall satisfaction—the core job dimensions, interaction features and policy measures are correlated highly with global satisfaction. Indeed even in Table 2, where satisfaction is divided into the three clustered components (loci), the relationship remains relatively strong (except perhaps for pay equity).
At first glance, it would appear that the separate loci are nondiscriminating and that only a single overall measure of satisfaction is necessary. Yet the canonical correlation coefficient between the three satisfaction loci and three representative design features (i.e., autonomy, agent feedback, and promotional fairness) is +.67, suggesting a substantial association between these two sets of variables. And, most importantly, the canonical analysis indicates that all of the variables in each set should be included in the equation with approximately equal weight.

In order to crystallize the structure, partial correlations between the design factors and satisfaction loci are denoted in Table 3. The partials are unambiguous. The five task dimensions are related only to the job properties locus. Agent feedback and colleague assistance are related solely to the interaction feature locus. Promotion fairness and pay equity are associated only with the organizational policy locus. Therefore, each satisfaction locus can be related to a specific design feature and, as discovered by the canonical correlational analysis, all are important.
Finally, the results presented here were built upon a very heterogeneous sample— that is individuals working at considerably different jobs within differing organizations and departments. On the supposition that we might be washing or leveling out important distinctions, the analysis presented here was repeated for each organization, each department, and each EEOC classification separately. The findings in all instances were nearly identical to the results summarized above.

**IMPLICATIONS**

The thrust of the foregoing section suggests that we are dealing with an intricate, albeit relative, phenomenon. Work satisfaction, in the abstract, is interwoven with job, interaction and policy threads, each of which contribute independently to the detail and strength of the fabric. On the surface, it may appear that Schein's (1965) cogent argument for a 'complex man' approach to the study of individuals in organizations is the most appropriate. Yet it may be useful to think also of human behavior as being quite simple, but because most individuals work in very complex physical, social, and political environments, their actual behavior appears extremely complicated. This approach inverts the traditional psychological viewpoint in which the vast complexity of man's behavior is seen to lie within him (emphasizing needs, motives, values, and so on— individual differences). And the assumption that behavior is simple (indeed rational) may prove ultimately more fruitful. For such a perspective directs our attention to the variable characteristics of the situations in which people's work lives are embedded rather than to the relatively fixed personality dimensions of
individuals called out in work settings.\(^5\)

Regardless of the theoretical slant on the determinants of man's behavior, one implication is common to both the complex man and complex situation approaches. Simply put, there can be no one correct managerial strategy to influence employee satisfaction which works for all persons, across all situations and at all times. This is not a moot point. If one examines the myriad of programs designed to combat alienative or dissatisfying aspects of the work experience, myopic and limited perspectives predominate. Both researchers and change-oriented practitioners tend to emphasize one philosopher's stone at the expense of others. Thus each satisfaction paradigm—whether human resources, relations or rewards—utilizes a very different set of assumptions regarding appropriate remedies.

What has been neglected in the unfolding of countless attitude studies is the humble fact that whatever one's framework for viewing the roots of work satisfaction, support for that position is likely to be forthcoming. As Table 1 indicates, each cluster of objective traits correlates reasonably well with overall satisfaction. But as Table 3 so clearly demonstrates, these objective features are theoretically distinct. This illusionary situation is compounded by the pervasive tendency for those jobs ranking high (or low) on one objective feature to rank high (or low) on the other features—a sort of Marxian corollary suggesting that the better jobs in terms of their design (autonomy, variety, feedback) are also better paying, more likely to lead to advancement and enjoy privileged interactional benefits. However, a deeper probe of this somewhat commonsensical result reveals that his need not be the case. For example, professional jobs within the municipal government sample ranked high on all task properties, yet ranked low on all the interaction and policy dimensions (Van Maanen and Katz, 1974). In other words, focusing strictly on empirical correlations when dealing with this
component variable called satisfaction can be misleading.

In application, the consequences of this view are many and call for a relativistic, particularistic, and carefully diagnosed approaches when dealing with varied work situations. Indeed inappropriate programs in certain cases (as highlighted by the negative correlations in Table 3) can be anything but inconsequential or banal. They may in fact be dangerous, resulting in a further deterioration of work attitudes.

We are arguing in effect that when one designs a change program aimed at influencing work satisfaction, explicit attention must be paid to all three explanatory paradigms—human resources, relations, and rewards. One without the others may lead to substantial difficulties. Certainly there is a correspondence among the elements of the three models, but the effects of each can be isolated. Furthermore each framework implies a distinctly different course of subsequent actions. If, for illustration, the source of dissatisfaction can be attributed to job characteristics (e.g., little variety or task identity), the appropriate remedy would not involve a human relation program to improve hierarchical communications or a policy change revising training techniques for employees working the target job—although these remedies could perhaps have positive secondary consequences. Rather the solution is one that involves changing directly the nature of the task. On the other hand, if there is a wide discrepancy between what employees are asked to give on the job and what they get in terms of reward, the solution is not job enrichment, but reward enrichment.

Consistent with this approach, some a priori assumptions can sometimes be made regarding the ease or difficulty involved in altering the objective features of a particular work situation. Using public sector organizations as a frame of
reference, one would normally expect the most impossible satisfaction problems to revolve around the areas covered by overt organizational policies—since these usually represent grounded organizational premises having historical weight. Notably, work in typical public organizations involves relatively rigid civil service constraints, tight bureaucratic restrictions, referral and coverage procedures laid out in the form of almost sacred rules and regulations. Furthermore, arcane political considerations are involved in virtually all policy decisions. Hence, organizational policy changes such as those that might effect promotional opportunities or security concerns represent almost unbreachable difficulties.

Perhaps a less problematic approach—yet nonetheless formidable—involves changing the interactional features in which work in the public service takes place. Here we are discussing both the quality and quantity of subordinate-superior communications, lateral relationships, inter and intra-departmental rivalries, performance feedback and the like. While these features are subject to redress via team building exercises, development of human relations skills for managers, participation in decision-making, T-grouping and a host of other inter-personal techniques, the dissatisfying elements of the interaction features may be the product of solidified rituals, individuals loyalties, ambiguous criteria for proper role fulfillment or technologically encrusted communication demands, none of which are easily changed.

Finally, focussing on the work itself (by constructing more meaningful jobs where possible) may be the most effective method by which to improve satisfaction in the public sector—providing of course that substantial dissatisfaction can be attributed to only this area and sufficient latitude for improvement exists. Importantly, policies need not be revised extensively (except in the relatively less volatile procedural areas) nor does the interaction feature require thorough
revisions—although both these work aspects may change as a result of job redesign efforts. Unlike many industrial jobs where technology almost precludes significant enlargement of various jobs (the proverbial Chaplinesque assembly lines), public bureaucracy routines are subject to vast changes. It may be that paper, people, and service tasks do not resist redesign efforts in the same fashion as steel, machinery, and production tasks.

In essence, what we are saying is that at least in most public offices a priority ranking may be established when attending to programs designed to increase work satisfaction. First, job themselves must be investigated to determine whether or not improvements are called for from a human resources standpoint. Second, the interaction features need be examined along more or less traditional human relations dimensions. Third, the overall policies of the organization should be studied to trace down sources of reward dissatisfaction. But what is critical about this simple scheme is that it proceeds logically, from the most flexible potential change target to the least flexible or presumably the most resistant to change.

Several cautionary caveats should be added here however. The best plan in any organization is the most comprehensive. All three loci of work satisfaction must be considered. Furthermore, the discussion thus far assumes a somewhat stable environment. Yet, organizations are dynamic systems and changes in one area invariably have repercussions in other areas. Similarly, the loci equation implies a dynamic. A most basic example will suffice. Suppose a particular job is redesigned such that more responsibility and autonomy are provided. Over time, the employees working the enlarged jobs may justifiably become more dissatisfied with organizational policies such as a promotional mechanic resting on seniority or a compensation scheme resting on seniority—policies with which employees were probably once reasonably satisfied. Clearly, there are tradeoffs in the loci formulation, resembling perhaps
something like a hydraulic system in which a change in one variable entails a change in another. Additionally, there is little reason to suspect that even the most enlarged jobs will not eventually become routinized and boring as employees become proficient at their redesigned tasks or that revised benefit packages will not lose their attractiveness at some future time. Hence longitudinal considerations must be included when advocating a tactic of improving work satisfaction.

Again, satisfaction is not monocausal in nature, it is complex and programs designed to alter satisfaction levels need be handled with continuing sensitivity and foresight.

To summarize, we have demonstrated empirically that the loci or work satisfaction fall approximately into three clusters related primarily to objective features of one's occupational situation. And based on these objective characteristics of working life, individual sentiments (satisfactions) develop which were shown to be conceptually, if not always operationally, independent. Of course, different people will emphasize different loci, but we believe that in the preponderance of situations, such emphasis will reflect collectively legitimated interpretations of the work set and setting. Finally, we suggest that the component elements of work satisfaction are analogous to Lewinian psychological or experienced states. For example, jobs rich in task significance, variety, and autonomy normally generate a positive subjective response on the part of the job holder as to the worth or meaningfulness of the particular task. Jobs loaded heavily on interaction features—providing high supervisory, peer, and client feedback, participation, task collaboration and the like—provide an individual with the subjective experience of belongingness, knowledge of results, and knowing where one is vis-a-vis others in the organization. Similarly, the objective characteristics of the organization's policies—career opportunities, reward policies, training programs, transfer rules,
and so forth—provide the basis for psychological evaluations regarding the degree to which one feels he is treated fairly or equitably by the organization and allows one to develop notions regarding the convergence between one's own values and the experienced organizational values (integration). While research along these lines is still in the infant stages, the future looks promising. Consequently, we contend that at the fundamental level, stronger theory, and more appropriate applications will result if we no longer concentrate on psychological explanations of the social, but rather allow the social to provide an account of the psychological.

**EXCURSUS**

There are several troublesome issues associated with this brief portrait of work satisfaction. First, better objective descriptions of work situations are required. If the approach presented above is to have analytic and practical value, we need reasonably accurate measurement techniques by which to characterize and compare work environments—particularly along the woefully neglected organizational policy dimension. Perhaps some potentially valuable indices may come eventually from researchers' attempting to construct simplified typologies regarding the structural characteristics of organizations (e.g., Perrow, 1967; Child, 1972; Pugh et al, 1969; Evan, 1963) and those examining various classification schemes for characterizing career sequences (Schein and Bailyn, 1974; Evans, 1974; Van Maanen and Schein, 1975).

Second, the further delineation of experiential or psychological states associated with each set of satisfaction loci is a necessity. Assistance in this task is likely to come from the cognitive modeling work directed toward building
mental maps of the underlying dimensionality associated with various aspects of psychological space (Carroll, 1969; Green, 1969; Gould and White, 1974). Hence, we must reveal the mental images people carry with them of their work and workplace (images formed primarily via socialization processes and filtered information flows). This difficult task of measurement is necessary if we are to advance beyond this speculative stage—recognizing of course that the act of measurement may itself screen out aspects of the very thing we are trying to capture with our rulers.  

Third and most importantly, we must begin to develop integrated change programs that combine human resources, relations, and reward features such that applied solutions promoted by change agents fit the various problem parameters. In other words, greater specificity and dimensionality is required in all programs designed to effect work satisfaction. If this difficult shift is to be made lasting, sequential and dynamic strategies must be invented.

To conclude, overarching generalization claiming to provide closure on the multiplicity of work worlds are difficult, if not impossible, to conceive; and the sooner we discard this quixotic quest, the better. It would seem therefore that social scientists must begin detailing and classifying situational contingencies impinging upon a sort of balanced loci model as described here and engaging in the hard intellectual work required for the design of comprehensive change programs. We must recognize that it is not the need for new theories or variables that has slowed this most practical of endeavors, but rather the need for the creative synthesis of existing approaches in diverse complex situations.
FOOTNOTES

1. For some recent and spirited views from this perspective see Sheppard and Herrick (1972); HEW Task Force Report (1973); Jenkins (1974); and Davis and Taylor (1972).

2. It should be emphasized that we are only examining satisfaction as reported in relationship to one's work. While it is growing more apparent that work satisfaction is associated with one's opportunity structure, familial responsibilities and stage in the life-cycle, we are interested in the linkages arising solely from the workplace. A cursory analysis of some of the non-work elements associated with work satisfaction in the public sector is presented in Van Maanen and Katz (1974).

3. With a sample as large as the one utilized in this study (N≈2514 for all tables), statistical significance has very little meaning (i.e., virtually all correlations even slightly above or below the zero level are significant). The argument reported here rests upon the patterns in which the data fall, as well as upon the logic underpinning the research questions asked. To report statistical significance, therefore, seems unnecessary.

4. In a similar vein, Simon (1969) draws an analogy with an ant transversing a beach ribbed with waves of sand: the ant's path might appear complex, although the ant's actions were directed at only the simple objective of returning to the nest. The crooked trail we see reflects the complicated environment in which the ant's task is carried out rather than a truly complex behavior pattern. Of course, this is simply an analogy and Simon would certainly be the first to deny that men are like ants. Yet, this approach is an intriguing one and has led to some models of man that are appealing intuitively.

5. In part, we argue in this paper that satisfaction is a function of situational surroundings accompanying the doing of work rather than a function of the psychological predispositions or demographic characteristics of the doer. While such influences can not fully be put aside, we feel it far more important to denote environmental relationships to satisfaction than the more frequently used intrasubjective relationships. At least with the former, any resulting change strategies can be grounded upon concrete phenomena observable in the work-place. Furthermore, separate calculations based upon individuals with high-ordered needs and those individuals with low-ordered needs altered only slightly the reported patterns of the objective characteristics relationships to satisfaction attitudes.
6. Indeed a temporal ordering of the prerequisites which underlie various change targets may be required in certain cases. For example, appropriate policy alterations may only be possible given an effective interaction context for information exchange. Hence, communication networks need first be established. Moreover, a change in task requirements may be necessary before any effective interaction context can be constructed. While such an ordering is certainly not applicable across all work settings, change agents must carefully and deliberately consider tactical alternatives for, as we have shown, one choice is not as good as another.

7. Much work of late has gone into the development of dimension-free psychological mapping in which items are scaled on the basis of their elicited similarities (e.g., multidimensional scaling, clustering and various other non-metric techniques). Such configurations show great promise at uncovering the so-called deep structure of thought and have found interesting applications in such diverse fields as marketing, psycholinguistics, cognitive anthropology, and social geography.
TABLE 1: Correlations of Design Features with Overall Satisfaction

<table>
<thead>
<tr>
<th>DESIGN FEATURE</th>
<th>CORRELATION WITH OVERALL SATISFACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task Variety</td>
<td>.28</td>
</tr>
<tr>
<td>Task Identity</td>
<td>.24</td>
</tr>
<tr>
<td>Task Significance</td>
<td>.23</td>
</tr>
<tr>
<td>Autonomy</td>
<td>.40</td>
</tr>
<tr>
<td>Feedback from Job</td>
<td>.36</td>
</tr>
<tr>
<td>Agent Feedback</td>
<td>.48</td>
</tr>
<tr>
<td>Colleague Assistance</td>
<td>.36</td>
</tr>
<tr>
<td>Promotion Fairness</td>
<td>.51</td>
</tr>
<tr>
<td>Pay Equity</td>
<td>.16</td>
</tr>
</tbody>
</table>
TABLE 2: Correlations of Design Features with Satisfaction Loci

<table>
<thead>
<tr>
<th>DESIGN FEATURE</th>
<th>CORRELATIONS WITH:</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Interaction</td>
<td>Job</td>
<td>Organization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Context</td>
<td>Properties</td>
<td>Policies</td>
<td></td>
</tr>
<tr>
<td>Task Variety</td>
<td>.19</td>
<td>.50</td>
<td>.13</td>
<td></td>
</tr>
<tr>
<td>Task Identity</td>
<td>.18</td>
<td>.27</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td>Task Significance</td>
<td>.19</td>
<td>.35</td>
<td>.14</td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>.32</td>
<td>.50</td>
<td>.22</td>
<td></td>
</tr>
<tr>
<td>Feedback from Job</td>
<td>.33</td>
<td>.38</td>
<td>.28</td>
<td></td>
</tr>
<tr>
<td>Agent Feedback</td>
<td>.56</td>
<td>.36</td>
<td>.37</td>
<td></td>
</tr>
<tr>
<td>Colleague Assistance</td>
<td>.41</td>
<td>.25</td>
<td>.37</td>
<td></td>
</tr>
<tr>
<td>Promotion Fairness</td>
<td>.38</td>
<td>.31</td>
<td>.32</td>
<td></td>
</tr>
<tr>
<td>Pay Equity</td>
<td>.11</td>
<td>.11</td>
<td>.15</td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 3: Partial Correlations of Design Features and Satisfaction Loci

<table>
<thead>
<tr>
<th>DESIGN FEATURES</th>
<th>Job and Organizational</th>
<th>Interaction and Organizational</th>
<th>Job and Interaction Organizational Policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Loci</td>
<td>Interaction</td>
<td>Job Properties</td>
<td>Properties</td>
</tr>
<tr>
<td>Task Variety</td>
<td>-.10</td>
<td>.54</td>
<td>-.21</td>
</tr>
<tr>
<td>Task Identity</td>
<td>.02</td>
<td>.20</td>
<td>-.02</td>
</tr>
<tr>
<td>Task Significance</td>
<td>.00</td>
<td>.32</td>
<td>-.10</td>
</tr>
<tr>
<td>Autonomy</td>
<td>.06</td>
<td>.43</td>
<td>-.15</td>
</tr>
<tr>
<td>Feedback from Job</td>
<td>.10</td>
<td>.21</td>
<td>.00</td>
</tr>
<tr>
<td>Agent Feedback</td>
<td>.42</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Colleague Assistance</td>
<td>.28</td>
<td>.04</td>
<td>.07</td>
</tr>
<tr>
<td>Fairness of Promotions</td>
<td>.04</td>
<td>.05</td>
<td>.42</td>
</tr>
<tr>
<td>Pay Equity</td>
<td>.01</td>
<td>.01</td>
<td>.12</td>
</tr>
</tbody>
</table>
REFERENCES


REFERENCES - continued


Morse, N. Satisfaction in the white collar job. Ann Arbor: University of Michigan, 1953.


Schein, E. H. & Bailyn, L. Life/career considerations as indicators of quality of employment, paper presented at Symposium on Quality of Employment Indicators sponsored by Bureau of Social Science Research, 1974.


REFERENCES - continued


