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ABSTRACT

Job enrichment rapidly is becoming one of the most widely used behavioral science strategies for organizational change. And there is scattered but compelling evidence that, under certain conditions, the technique can lead simultaneously to both improved productivity and an increase in the quality of employee work experiences. Yet observations of on-going job enrichment projects in a number of organizations suggest that the approach is failing in practice at least as often as it is succeeding--and that its future as a strategy for personal and organizational change may be bleak. The report (1) explores a number of frequently-observed errors in implementing job enrichment that can lead to "failures" of the technique, and (2) identifies a number of ingredients found to be common to most of the "successful" job enrichment projects that were observed. (Author)

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ON THE COMING DEMISE OF JOB ENRICHMENT

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Abstract

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## ON THE COMING DEMISE OF JOB ENRICHMENT<sup>1</sup>

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In the years since the groundbreaking Hawthorne Studies, increasing numbers of behavioral science "solutions" to organizational problems have been proposed. Typically a newly-conceived solution is first tried out--with great success--in one or two organizations. It then is picked up by the management journals and the popular press, and spreads wildfire-like across the country. And then, after a few years, it fades away as disillusioned managers and employees conclude--sometimes reluctantly, sometimes angrily--that the "solution" was not all it had been cracked up to be.

It looks as if work redesign (or job enrichment, or job enlargement--call it what you will) is to be the darling of the early 1970s. It began in this country with the pioneering research of Charles Walker and Robert Guest (1952), Frederick Herzberg and his associates (Herzberg, Mausner & Snyderman, 1959; Herzberg, 1966; Paul, Robertson & Herzberg, 1969), Louis Davis (1957; 1966), and a few others. Successful tests were conducted in a few forward-looking organizations, prominently including the studies at AT&T shepherded by Robert Ford and his associates (Ford, 1969). Now change programs focussing on work redesign are flooding the country, stories on "how we profited from job enrichment" are appearing in management journals, and the labor community is struggling to determine how it should respond to the tidal wave that seems to be forming.

The question of the moment is whether the redesign of work will evolve into a robust and powerful strategy for organizational change--or whether it, like so many of its behavioral science predecessors, will fade into disuse

as practitioners experience failure and disillusionment in its application. The answer is by no means clear.

In this paper, I report some observations and impressions about work redesign as a strategy for individual and organizational change--with particular emphasis on factors which determine whether it will succeed or fail in a given instance. These observations are based on experiences my associates and I have had in fifteen to twenty organizations over the last two years. We have been developing and refining an instrument for the diagnosis of jobs and the evaluation of job redesign projects (Hackman & Oldham, in press). In the process, we have visited numerous organizations where job redesign activities were being planned, implemented, or gotten over. We have talked with workers, managers, and internal and outside consultants. In several cases, we have used our instrument to make quantitative evaluations of organizational change projects involving the redesign of work:

In interpreting our observations and conclusions, it is important to understand that we have not researched the "superstar" projects. Not a single one of our tests has been conducted at a brand new plant, designed, staffed, and managed in accord with the freshest precepts of behavioral science. Instead, we have focussed our attention on "regular" organizations, organizations struggling to figure out, sometimes with professional help, sometimes not, just how one goes about reaping the purported benefits of job enrichment.

What we have seen out there in the "organizational heartland" is not very encouraging. If our observations are representative (and, holding aside the superstar projects, there are reasons to believe that we have seen some of the more thoughtfully-done work redesign projects) job enrichment is failing at least as often as it is succeeding. And people, not all of them of sympathetic mind, are finding out.

For illustration, consider how job enrichments are initiated--and how word is spread about their effects. The impetus may come when a manager hears of the idea from a colleague, or reads a glowing case report, and decides to try out job enrichment in his own unit. Or, perhaps, a consultant will convince a manager that it is "just what he needs." Or a vice-president will be converted during a seminar for top management, and will decree that all units responsible to him must have at least one job enrichment project underway by a certain date.

For whatever reason, a target job is selected and is "enriched." But something goes wrong, and it doesn't work. Because we have few decent measures of the outcomes of organizational change projects, the vice-president doesn't find out (he gets the same slide-and-flip-chart-show in any case). But the manager responsible for the project knows it didn't work, because most of the old problems are still there and maybe even a few new ones have been added. And he isn't talking. He isn't talking because he believes that somehow he personally screwed it up. Reading additional case studies of job enrichment successes (the only ones published) confirms his feeling of personal failure and his resolve to stay quiet.

Then he goes to a convention or, to a management seminar. He has a few drinks, and starts sharing war stories with a (safe) colleague from another organization in another industry. And finds, to his surprise and relief, that exactly the same thing has happened to the other fellow--and that he, too, thought for sure that he personally had fouled it up. Attribution of responsibility for the failure of job enrichment gradually begins to move from internal to external targets, and soon the network reverberates with a new and reassuring message: JOB ENRICHMENT DOESN'T WORK. That is what is starting to happen now. The message soon will be scrawled upon the pages of the Harvard Business Review, the success of the superstar projects will be carefully explained away (as, indeed, William Gomberg (1973) already has attempted to do for the broad-gauged experiment at General Foods in Topeka),

and work redesign as an organizational change strategy will find itself at death's door.

That will be sad. Because the redesign of work differs in some important ways from other behavioral science approaches to changing life in organizations. Five ways in which work redesign is unique are suggested below. Together, I believe, they make a rather compelling "case" for the preservation and further development of work redesign as a change strategy.

Why Work Redesign Should Survive

1. Changing jobs changes the basic relationship between a person and his/her work. When all the outer layers are stripped away, this is where most of the problems--and most of the opportunities--in contemporary organizations reside. The interface between people and the tasks they do therefore represents an especially powerful point of leverage for making changes in organizations.

Frederick Taylor realized this when he set out to design and manage organizations "scientifically" at the beginning of the century (Taylor, 1911). But while we may credit Taylor for addressing the heart of the matter, we must fault him for altering the relationship between workers and their work in a way that placed the needs of the organization in opposition to many of the needs of the workers themselves. Taylor and his associates apparently realized this, and dealt with the problem by instituting financial incentive plans to make the workers "want" to work hard toward organizational goals--and by placing such an elaborate set of supervisory controls on the workers that they scarcely could behave otherwise. Automated machines, later, led to increased incongruence between individual and organizational goals, even in companies not managed in accord with the precepts of scientific management.

The response of industrial psychologists to this trend was, in general, to try to help solve the problems created by scientific management and by automation--e.g., by finding ways to select individuals who were appropriate

to perform the tasks organizations designed, and to "prop up" the often-waning motivation of workers to carry out those tasks. The human relations movement, the design of piece rate and other incentive systems, experimentation with various supervisory styles--all were, more or less, aimed at compensating for or overcoming the "natural" pulling apart between the worker and his work. It can be argued that the failure of behavioral scientists to have more impact on organizations has largely to do with their acceptance of the assumption (shared with management, to be sure) that the work itself was inviolate--that the role of behavioral scientists was simply to help organizations select and motivate people within that terribly significant given.

Work redesign raises the possibility that by changing the way the work itself is arranged it may be possible to bring individual and organizational goals back together again. By providing workers with additional challenge, responsibility, and feedback in their duties, it appears, it may be possible to move from extrinsic props to worker motivation to genuinely internal work, motivation--the worker doing the work because it interests and challenges him, and rewarding himself for "work well done" when he performs effectively.

2. Work redesign changes behavior, and does so directly. People do the tasks they are given. How well they do them depends on many factors, including how the tasks are designed. But people do them.

On the other hand, people do not always behave consistently with their attitudes, their level of satisfaction, or what they cognitively "know" they should do. Indeed, it now is well-established that one's attitudes often are determined by the behaviors one engages in--rather than vice-versa, as traditionally has been thought (Bem, 1970; Kiesler, Collins & Miller, 1969). This is especially the case when the individual perceives that he has substantial personal freedom or autonomy in choosing how he will behave (Steiner, 1970).

Enriching jobs, then, may have a twin virtue. First, behavior itself is

changed. And second, an increase usually is realized in the degree to which the individual experiences high levels of autonomy and personal discretion at work--increasing the likelihood that the individual will develop attitudes that are supportive of his new on-the-job behaviors.

The approach of work redesign, then, does not rely on getting attitudes changed first (e.g., inducing the worker to "care more" about the work outcomes as in zero defects programs) and hoping that the attitude change will generalize to work behavior. Instead, the strategy is to change the behavior itself, and to change it in a way that gradually leads to a more positive set of attitudes about the work, the organization, and the self.

3. When behavior is changed through the redesign of work, it tends to stay changed. After jobs are changed, it usually is rather difficult for workers to "slip back" into old ways of proceeding. The old ways simply are inappropriate for the new tasks, and the structure of those tasks reinforces the changes that have taken place. One need not worry much about the kind of backsliding that occurs so often after training or attitude modification activities, especially those that occur off-site. The stimuli that influence the worker's behavior are very much on-site, every hour of every day. And once those stimuli are changed, they are likely to stay that way--at least until the job is once again redesigned.

4. Work redesign offers--indeed, often forces into one's hands--numerous opportunities for initiating other organizational changes. When jobs are redesigned in an organization such that many people are doing things differently than they used to, new problems inevitably surface and demand attention. These can be construed solely as problems--or they can be treated as opportunities for further organizational development activities. For example, technical problems are likely to develop when jobs are changed--offering the opportunity to smooth and refine the work system as a system. Interpersonal issues are

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likely to arise, almost inevitably between supervisors and subordinates, but also between peers who now have to relate to one another in new ways. These offer the chance for developmental work aimed at improving the social and supervisory aspects of the work system.

Because such problems are literally forced to the surface by the job changes all parties may feel a need to "do something" about them. The "something" can range from using the existence of the problems as an occasion for declaring that "job enrichment doesn't work," to simply trying to solve the problems quickly so the project can proceed, to using the problems as a point of entry for work on other organizational issues. If the latter stance is taken, the behavioral science professional may find himself pleasantly removed from the old difficulty of selling his wares to skeptical managers and employees who are not really sure there is anything wrong.

Moreover, if such "spin-off" problems are addressed effectively, the overall management style of the organization may begin to change. Managers sometimes view personnel problems as simply a matter of finding the right pegs (people) to fit existing holes (jobs) in the organizational pegboard--shaving and hammering those pegs (training and motivation) as necessary to get them to fit. Work redesign, when followed up competently, can help managers move toward the view that both the pegs and the holes are fair game for change in trying to achieve the best possible fit between the organization and the people who carry out its work.

If work redesign succeeds in generating increased employee motivation toward achieving organizational goals, the nature of the managerial job itself ultimately may change. Rather than having the problem of "how to keep people from loafing on the job," for example, the manager may have to deal with quite a different issue: namely, what to do next to keep his people challenged. That is, what does one do after jobs have been enriched, the people have

conquered the newly-enlarged jobs, and they now are hungry for yet more challenge in their work? A tough managerial problem, to be sure, but rather a more pleasant one than that of trying to find ways to keep recalcitrant and perhaps hostile workers plugging away on a deadening, routine job.

5. Work redesign, in the long term, can result in organizations that re-humanize rather than de-humanize the people who work in them. Despite the popular over-blowing of the "work ethic issue" in recent years, the evidence is convincing that organizations can and do sometimes "stamp out" part of the humanness of their members--and especially that natural motivation toward growth and personal development that is so clearly and brawlingly present in infants (cf., Kornhauser, 1965). By the time children have finished school, or at least by the time they have done ten years in a work organization, their motivation toward personal growth and development may have been rendered near-latent.

Work redesign can help individuals regain the chance to experience the "kick" that comes from doing a job well, and can encourage them to once again care about their work and about developing the competence to do it even better. These payoffs from work redesign go well beyond simple "job satisfaction." Cows grazing in the field may be satisfied, and employees in organizations can be made just as "satisfied" by paying them well, by keeping bosses off their backs, by putting them in pleasant work rooms with pleasant people, and by arranging things so that the days pass without undue stress or strain.

The kind of satisfaction at issue here is different. It is a satisfaction that develops only when an individual is stretching and growing as a human being, increasing his sense of his own competence and self-worth. Whether creation of opportunities for personal growth is legitimate as a goal for work redesign activities is a value question good for hours of discussion; the case for the value of work redesign strictly in terms of organizational

health easily can rest on the first four points discussed above. But the potential impact of work redesign programs on the people who do the work, as human beings, should be neither overlooked nor under-emphasized.

\* \* \*

As described above, the potential of work redesign as a strategy for change may sound absolutely glowing. It should. The evidence--although it presently is scattered and sadly non-systematic--is convincing that job redesign really can "work" in the sense of leading to the kinds of positive outcomes suggested above.<sup>2</sup> Yet the emphasis, for now, must carefully be placed on the word "potential"--because that potential infrequently is realized in work redesign projects being undertaken in contemporary organizations. Let me turn now to what I believe are some of the major reasons for this state of affairs.

What Goes Wrong

There is an almost endless list of things that can go wrong when a work redesign project is carried out in an organization. Listed below are seven pitfalls I believe to be especially serious, and which often were encountered by the organizations we observed.<sup>3</sup>

Problem 1. Sometimes the work itself does not actually change. While it is true (as suggested earlier) that when jobs are changed they tend to stay changed, it also is the case that it is relatively difficult to actually alter the way work is structured. It is, for example, typically much harder to change jobs than it is to introduce attitude improvement programs, objective-setting activities, training courses, and numerous other organizational development activities. The reasons for the difficulty are manifold: (a) at the purely bureaucratic level, the entire personnel-and-job-description apparatus often must be involved to get the changes approved, documented, and implemented; (b) if the organization is unionized, the planned changes



often must be negotiated a priori--sometimes a formidable task; (c) simple inertia sometimes keeps people from "really" changing what is done--providing instead mere window dressing to make things appear different; and (d) when even one job in an organization is changed, all the interfaces between that job and related jobs must often be dealt with as well--and in extremely complex work systems, that is no small matter.

Because of these and other forces against change, work redesign projects frequently are carried out that have, in actuality, very little to do with the work people do at all. We examined one organization, for example, where the informal word among managers at the end of a work redesign trial was that "we tried job enrichment and it failed." But our research data (which measured the objective characteristics of the jobs people did once before and twice after the change) showed that, while all manner of things did change as part of the job enrichment program, the work itself was not among them.

Our correlational analyses of data collected in that organization showed that there were very positive relationships between the amount of skill variety, autonomy, and feedback in various jobs and the satisfaction, motivation, performance, and attendance of the job incumbents. These across-job relationships were present prior to the change project, and they were there afterwards. But it also was the case that those people who held the "good" jobs before also held them afterwards, and those people whose jobs originally were routine, repetitive, and virtually without feedback had essentially identical jobs after the work was "redesigned." Chairs were moved about, supervisor was changed, names of jobs and work units were altered, and in general a great stirring about took place. But the jobs themselves were not changed. And the effect (after about six months) was a slight deterioration in worker satisfaction and motivation (Frank & Hackman, 1975).

It is easy, apparently, for those responsible for work redesign activities

to delude themselves about what is actually being altered in such projects-- and to avoid thereby the rather difficult task of actually changing the structure of the jobs people do.

Problem 2. Even when jobs actually are changed, their positive effects sometimes are diminished or even reversed by insufficient attention to the impact of the changes on the surrounding work system. It was suggested earlier that one of the positive features of work redesign is its use as a lever for opening up other aspects of the work system for change and development. The other side of the same coin is that if insufficient attention is given to the "spin-off" effects of job changes, they may backfire and ultimately result in an organizational situation that is worse off than it was prior to the change program.

We have observed this phenomenon in more than one organization, and the nature of the "backfire" has varied from case to case. In one situation, the computer system (which was crucial to orderly workflow) was affected by the change--and was unable to handle the now-different schedule of data input. The result was excessive delays, creating both attitudinal difficulties on the part of individuals whose jobs had been enriched, and a decrease in the promptness of client service. In another case, work was redesigned so as to push down to workers a number of responsibilities that previously had been handled by supervisors. Initially the workers seemed to be prospering in their new responsibilities (even though objectively the changes were not all that radical). But a post-test revealed a deterioration in morale, especially in the area of superior-subordinate relationships. Apparently the supervisors had found themselves with little work to do after the change (the employees were handling much of what the supervisors used to do), and when they turned to higher management for instructions, they were told to "develop your people-- that's what a manager's job is." The supervisors had little idea of what

"developing your people" involved, and in many cases operationalized that instruction by standing over the employees' shoulders and correcting each error they could find. Resentment between the supervisor and the employee groups quickly developed, and more than overcame any positive benefits that had accrued from the changes in the job (Lawler, Hackman & Kaufman, 1973).

The implication is clear: those implementing job redesign in the organizations we observed are giving insufficient attention--both prior to the change, in planning activities, and afterwards--to the ways the change may affect other aspects of the social and technical systems in the workplace. And the result is often a "failure" of work redesign, one which might have been avoided by more careful attention to the systemic nature of the organizational unit.

Problem 3. Rarely is a systematic diagnosis of the target jobs undertaken prior to planning and executing the actual changes. At worst (and we have observed it happen--with unfortunate consequences) job enrichment is undertaken because someone in high management orders it done (for reasons never stated), or because a consultant with goods to sell finds a line manager who can be sold. The characteristics of the focal job, of the people doing the job, or of the unit in the organization where the job was located carry essentially no weight in deciding where work is to be redesigned or how it is to be done.

Slightly (only slightly) better was one organization where a line manager and an internal consultant (both of whom were inexperienced in work redesign) decided that a particular job "seemed appropriate" for job enrichment. After consulting a few case reports of successful projects, they decided what specific changes "seemed right" and proceeded immediately to implement them. Neither data nor theory entered into the planning or the implementation in any meaningful way.

More adventurous (or more thoughtful) managers and consultants sometimes

decide that since employees probably know their work better than anyone else, they should be involved in deciding how (rarely whether) their jobs should be changed. A diagnosis of sorts is carried out in such cases, because employees usually do know what is right and what is wrong with their work. However, employees typically do not know much about theory that could be helpful in designing jobs so that the joint outcomes for individuals and organizations are maximized. Therefore their advice often tends to be oriented simply toward the removal of "roadblocks" in the work. While managers and consultants could teach the employees the principles of job enrichment theory, we have not observed this done.<sup>4</sup>

An adequate diagnosis of a job being considered for enrichment would involve, at minimum, (a) assessment of the degree to which the job as a whole is objectively open to change and improvement, and (b) identification of those specific job characteristics that should be modified to have the greatest impact on the motivating properties of the job. Only rarely did we see explicit and systematic attention given to diagnostic questions such as these. Instead, managers and consultants tended to rely on intuitive or on "shotgun" approaches to planning for work redesign--sometimes with employee involvement, sometimes without it. And the result, in many cases, was a job enrichment effort that failed because it was aimed at an inappropriate target.

Problem 4. Rarely is the work system surrounding the focal job assessed for its "readiness" for change prior to work redesign. There are now reasonably clear data that job enrichment does not work for all individuals in all organizational circumstances. Yet our observations of in-practice installations of job enrichment show (almost universally) little apparent awareness of or sensitivity to the "readiness" for job enrichment of the target employees or of the surrounding social system. For example, line managers typically expressed initial doubts that their employees could handle the contemplated additional

responsibilities--or that they would want to try. Sometimes, as planning for work redesign proceeded, managers would become convinced of the contrary. But only rarely did we observe anyone actually acting on the assumption that individuals may differ in psychological readiness for an enriched job.

Even less frequently was an explicit assessment made of the readiness of the management team itself to deal with the kinds of problems that inevitably arise when major organizational changes are made. In one case, the management team nearly collapsed when the first serious change-related problem emerged. Time and energy that was needed for the change project was spent instead working on the intra-team issues that had been flushed out by the problem--and another "job enrichment failure" was added to the tally while the managers talked and talked. An adequate diagnosis of the readiness of the management team for change-management would have increased the likelihood that the problematic intra-team issues would have been dealt with before the work-redesign activities themselves were initiated.

The commitment of middle and top management to job enrichment also deserves explicit diagnostic attention--and, in the cases we observed, rarely received it. Whether organizational change activities must begin at the top--or whether work redesign is a strategy for change that can spread from the bottom up--remains an important and unresolved question (Beer & Huse, 1972). It is, however, almost always the case that middle and top management can terminate a project they find unsatisfactory, whether for good reasons or on a whim. But rather than working to assess and cultivate the commitment of higher management to job enrichment, most implementation teams we observed sufficed by finding a high level "sponsor" for the project and then counting on him to protect the project from high-level meddling. When such an individual has a change of heart, gets transferred, or even (in one case we observed) takes a vacation, the project may find itself out from under its

protective umbrella and in serious organizational jeopardy.

Problem 5. Rarely are work redesign projects systematically evaluated.

When we asked managers and consultants whether they evaluated their work redesign projects, the answer was nearly always in the affirmative. But when we then asked to see the evaluation, the response, disappointingly frequently, was something like "Well, let me tell you...only one week after we did the actual job enrichment, this guy who had been on the lathe for fifteen years came up to me, and he said...." Sometimes, however, "harder" data are pointed to--especially reduction in personnel in the unit where job enrichment took place. Surely such data reflect higher productivity per worker, but they are of little help in understanding the full richness of what happened, and why. And, of great importance in unionized organizations, they are hardly the kind of data that will engage the enthusiasm of the bargaining unit for further implementations of work redesign.

It is easy to explain why decent evaluations of work redesign projects are not done. There are lots of good reasons. Like not having the capability of translating human gains into dollars and cents. Like there being so many influences on measured productivity and unit profitability that it is hard to separate out what was due to the job changes. Like having an organization-wide accounting system that cannot handle the costs of absenteeism, turnover, training, and extra supervisory time. Like not really "trusting" measures of job satisfaction,

The reasons can be convincing. Until one asks what was done to try to overcome the problems, and gets as a response something like "Well, we really didn't think we could get the accountants to help out, so...." And one is left with several unhappy hypotheses: (a) the implementers do not know how to do a decent evaluation, nor how to get assistance in doing one; (b) evaluation per se is not considered to be an important part of work redesign by those who

implement it; or (c) the orientation to have the program appear successful is so strong that the implementators cannot afford the (very real) risk of conducting a systematic evaluation. (Often, for example, job enrichment is "sold" to higher management and is very much identified as "Joe's program." Joe, understandably, thereafter has a large personal stake in managing the image of the program within the organization--and a systematic evaluation takes out of his hands one important aspect of the image that eventually emerges.)

For whatever the reasons, the frequent result is that nothing is learned from the work redesign project that would be helpful in doing it better next time (other, perhaps, than an increase in the intuitive understanding of what to "watch out for" on the part of those individuals most intimately involved with installation of the program). And nothing is generated to convince a skeptical middle manager (or even a sympathetic one) that this activity is worthy of continued experimentation, of further trial-and-error iteration, and of additional investment of managerial time and organizational resources. "Let me tell you what this guy said..." just doesn't go over very well with a skeptical manager. Nor is it the stuff of which generalizable behavioral science knowledge is made.

Problem 6. Neither consulting staffs nor line managers nor union officers are obtaining appropriate education in the theory, strategy, and tactics of work redesign. In a few of the organizations we observed, no educational preparation for job enrichment projects was undertaken whatever--other than routine reading in management journals. In other organizations, key personnel would visit one or two organizations where work redesign projects had been carried out successfully. Sometimes a group from the organization would attend a one- or two-day workshop offered by an educational institution or consulting firm to learn the basics of job design.

But the orientation toward learning that we observed was, unfortunately, very much in the "satisficing" mode. That is, once those responsible for implementation felt comfortable with the basic ideas and principles of job enrichment, their commitment to learning dropped to near-zero, and/or was overwhelmed by the day-to-day pressures of getting the project planned and installed. And the loss of interest in learning, in many cases, perpetuated throughout the life of the project and beyond. (We observed a manager in one organization, for example, suffer through what was clearly a rather unsuccessful job enrichment project and then, a few months later, begin planning a new one--doing everything exactly the way he had done it before.)

Of special importance in the conduct of any organization development activity--and job enrichment is no exception--is the role of the internal consultant. Often one hears such individuals complain that they are not sufficiently respected as professionals in their organizations, that they constantly have to fight the battle of gaining "field credibility." This is understandable: if I were a line manager or a union officer, I would very much want to see evidence of the competence of the person who would bear primary professional responsibility for the project about to be done in my unit. And I would not be satisfied with war stories that had happy endings--despite any protestations that systematic evaluation is next-to-impossible given the state of the art.

It is also true, however, that sometimes line managers want altogether unrealistic amounts of reassurance about the competence of the staff consultants they will be dealing with, or that they seek unrealistically high estimates of the probability of success of the project being contemplated. Our observations suggest that consultants too often collude in such hand-holding activities--rather than helping managers and union officials face up to the genuine risks and uncertainties in the project, and encouraging them to

cultivate the project as a site for personal and organizational learning.

It usually is the responsibility of internal behavioral science professionals to make state-of-the-art information about the strategy and tactics of work redesign available to those who will be planning and executing the project. If internal resources are not at a sufficiently high level, steps should be taken to upgrade the expertise of key organization members and/or to bring into the organization outsiders who do have the knowledge and the skill needed for the project. We observed such developmental activities all too rarely in the organizations we visited. When consultants were engaged from the outside, for example, their advice was indeed used--but typically as a guide to "what to do now" rather than in a fashion that would upgrade the competence of those internal personnel who were centrally involved in the project. In such circumstances, the chances are very slim that significant learning and increased professionalization of internal personnel will occur as a by-product of the change project.

Problem 7. Work redesign projects often are themselves managed in accord with the dictates of traditional bureaucratic practice. Job enrichment projects, by their nature, are oriented toward helping individual workers (or groups of workers) become more autonomous and self-directed in carrying out their work activities. In a successful project, the people at the bottom of the organization are considered to be capable of doing the work of the organization with a minimum of interference, and of having the competence and the sense of responsibility to seek appropriate assistance when they need it. They are, in effect, encouraged to manage fairly autonomously their role relationships as well as their actual task work.

This requires, for effectiveness in the long-term, attention not only to the task itself, but also to the work system and how it is managed. As suggested earlier, the job and the organizational surround must be congruent

with and supportive of one another. The problem is that too often the process of implementing job enrichment is strikingly incongruent with the end state being worked toward.

It is unrealistic, I believe, to expect that one can achieve a more flexible, bottom-loaded work system by implementation procedures that are relatively rigid and bureaucratic, and that operate strictly from the top down. At the least, such implementation will raise questions in employees' minds about the genuineness of the change activity ("They're dictating to me again, but this time about how I should take more responsibility and initiative for achieving the organization's goals?"), often with unfortunate consequences for the level of employee trust in the project and commitment to it.

Yet again and again we observed standard, traditional organizational practices being used to install work redesign. More often than not employees were the last to know what was happening, and only rarely were they given any real opportunity to actively participate in and influence the changes. In many cases employees were never told why the changes were being made. Privately, afterwards, managers would ask themselves, "I don't understand why they did not respond more enthusiastically. Don't they realize how we are going to make their work a lot more pleasant and interesting?" And not realize the basic incongruence between the goals being aspired to and the phrase "how we are going to make...."

#### Some Ingredients for Effective Implementation

For all these reasons--and, undoubtedly, more that we have not observed--job enrichment projects are failing. And leaving bad tastes in the mouths of both the managers responsible for implementing them and the employees who are supposed to benefit from them. The failures are relatively quiet now; soon, I fear, they will become loud.

But I do not want to end on such a pessimistic note. Because we also saw in our travels some rather successful projects--and we, like everyone else, read the glowing reports of job enrichment successes in the professional literature. There are, I believe, some ingredients that are common to many of the more successful projects. A few of these that seem to me especially important are reviewed below.

Ingredient 1. Key individuals responsible for the work redesign project move TOWARD the especially difficult problems, and do so early. There is apparently a great temptation to get the project "sold" to management and union leadership, and only then to begin negotiations on the difficult problems. This seems entirely reasonable: if such problems were raised while authorization to undertake the project was being sought, the probability of a refusal would be higher. It appears, nevertheless, that in the long run it may be wiser to risk not doing a project for which the tough issues cannot be resolved a priori than to do one under circumstances that require compromise after compromise to keep the project "alive" after it has begun.

Particular issues that, in my view, require explicit attention from the outset (and that too often are reserved for "later" discussion) include:

--Explicit specification of the nature and extent of the commitment of management and union leaders, including the circumstances under which a decision may be made to terminate the project. Of special import is making sure that management and union leadership realize that there will be problems created by undertaking the project (especially in the early stages) and gaining commitment of these individuals to protect the project during these "down" phases.

--Discussion of criteria against which the project ultimately will be evaluated and the means by which evaluation will be done--including the measures that will be used. Given that there are serious measurement difficulties in assessing any work redesign project, it is important to make sure that all

parties, including management and union sponsors, are aware of these difficulties--and are committed at the outset to the evaluation methodology.

--Establishment of organizational learning as a goal that is shared by all involved parties--in addition to the typical goals of personal and organizational benefit. Critical to achieving a goal of learning, of course, is the development of feedback mechanisms to ensure that the learnings gained (whether they be of the "successful tactics we discovered" or the "roadblocks we unexpectedly encountered" variety) are available to appropriate individuals to be assimilated by them.

Ingredient 2. A theory-based diagnosis of the target job(s) is undertaken prior to implementation. Most work redesign projects--if grounded in theory at all--tend to be based either on the motivator-hygiene theory of Herzberg (1966) or (less frequently) on some version of socio-technical systems theory (e.g., Emery, 1959). The reason is simply that, until recently, these two paradigms have been about the only ones available for guiding work redesign activities. Now, however, a number of alternative conceptual approaches to work redesign have begun to appear--some of which specify explicit "principles" for improving jobs (see Glaser, 1974 for a partial review). As a result, the knowledgeable practitioner currently has considerable choice about the conceptual approach he will take in planning a work redesign project.

Probably some of the theories are better than others. Yet our observations suggest that it may not be that important which particular theory is used. More crucial to the success of a project, it appears, is that those responsible for designing the changes have firmly in mind some set of general principles for guiding their redesign activities--and that they conduct a preliminary diagnosis of the work system based rather explicitly on those principles. The theory is important, but primarily because it facilitates the development of specific objectives for the change project, and because it specifies the kinds of

data about the job, the people, and the situation that are required for planning the changes--and, later, for evaluating them.

Among the general issues often addressed in successful diagnoses we observed (which were conducted from a variety of theoretical perspectives) are the following:

--Can the jobs under consideration be meaningfully changed--i.e., will job enrichment make enough of a difference in the jobs to have an effect on the people who do them? (Some jobs are "about as good as they can be" at present; real changes in others would involve enormous expenditure of capital or alteration of un-alterable technology.)

--If the jobs are open to meaningful change, what specific aspects of the work are particularly problematic at present? What other aspects of the job provide opportunities for change that could increase the level of self-motivation of employees in their work?

--Are the employees reasonably ready for change and capable of handling their new duties afterwards? Are they reasonably satisfied with bread-and-butter issues of pay, supervision, and job security--or would an attempt to improve jobs run into resistance and hostility because of existing dissatisfaction with such items? It is especially important to collect explicit, reliable data on such issues, because these are matters for which a relatively high level of mis-perception and stereotyping on the part of managers may be expected. In particular, managers often over-estimate the present satisfaction of employees with the bread-and-butter issues, and under-estimate employees' psychological readiness and technical competence to take on added responsibility and challenge in their work.

--Is management itself ready to handle the extra burdens and challenges that will be created by the change? Some management teams are not, and it is better to find out early than to risk a major breakdown during week one of the project.

--What other aspects of the work system are likely to be affected by the change (including management, related peer groups, and clients), and are they ready and able to handle the change--or is prior developmental work required before beginning work on the target jobs themselves?

Such diagnoses are not easy to make. They involve hard, sometimes anxiety-arousing questions, and the answers which emerge are not always optimistic ones. Moreover, the tools and methodologies required for undertaking them are only now beginning to become available (cf., Hackman & Oldham, in press; Jenkins, Nadler, Lawler & Cammann, in press; Sirota & Wolfson, 1972b). But our observations suggest that the diagnostic task itself may be one of the most crucial of all in a work redesign project.

Ingredient 3. Specific changes are planned explicitly on the basis of the diagnosis, and are done so publicly. There appear to be at least three major advantages to being public and explicit in the translation from the theory through the diagnosis to the actual action steps that will be taken to modify jobs. First, by basing action plans explicitly on the diagnostic results, the project is protected from boiling over into all manner of irrelevancies--such as the perennial "parking problem" and the occasional "washroom problem." This is not to say that such other problems should not be dealt with; but it does suggest that if one is undertaking the redesign of work, the changes should have to do with the work itself. Action steps that are planned on the basis of a theory-based diagnosis of the work situation appear much less likely to miss the mark than those stemming from a more general probing of "what can we do here to improve things?"

Secondly, when the diagnosis is carried out and discussed publicly, all relevant parties (including those employees whose jobs may be changed) have the chance to become more involved in the redesign activities, more knowledgeable about them (and therefore less threatened by them), and more willing to

contribute ideas and energy toward making them successful. Indeed; the quality of the diagnostic data themselves may be enhanced when the planning process is public and discussable--since respondents may try especially hard to provide valid data for the diagnosis when they understand that changes in their own work will be planned on the basis of what they say.

Finally, by tying changes explicitly to the diagnostic results, the probabilities are dramatically increased that systematic understanding can emerge from the project that will help in the development of more effective action principles of work redesign. It will be easier to "trace back" to the reasons why such-and-such a change was tried, and discern where things went wrong (and where things went right) when the links between diagnosis and action are made explicitly and in advance (cf., Hackman, Oldham, Janson & Purdy, 1974).

Ingredient 4. Contingency plans are prepared ahead of time for dealing with the inevitable "spin-off" problems and opportunities that emerge from work redesign activities. By making such plans, and making them both explicitly and a priori, a number of advantages accrue. First, employees, managers, and consultants all know (and share the knowledge) that certain types of problems (e.g., tension in superior-subordinate relationships; technical problems; coordination difficulties at the interfaces of work systems; etc.) are likely to emerge. In more than one organization we observed, this simple understanding appeared to keep surprise and dismay at manageable levels when such problems did appear, and thereby may have decreased the chance for people to conclude prematurely that "it failed." Moreover, pre-planning for possible problems leads to an objective increase in the readiness of all parties to deal with them when they do emerge. Problems in organizations seem to crop up at the most frantic, generally worst-possible moment. Therefore, having a few contingency plans filed away can lessen the chances that unexpected problems

will sap all available energy as people try to cope with them, thereby draining away the energy and morale required to keep the project itself afloat.

In the work redesign projects we observed, needs arose for additional employee and managerial training, for reconsideration of the pay plan, for revision of selection and placement procedures, and so on. All of these issues--which indeed, bear on almost every aspect of organizational functioning--simply cannot (and probably should not) be planned for in detail ahead of time. Until a project is underway one cannot know what the specific nature of the need or the problem will be. But one can be ready to deal with common and general problems that may appear. For example, the training department can be alerted that some training may be required if managers find themselves in difficulty supervising the employees after the work is redesigned; those responsible for the reward system can be asked to engage in some contingency planning on the chance that the new work system may require non-traditional compensation arrangements; and so on. To recalculate: one does not begin with these matters; but one is well-advised to anticipate that certain of them will arise, and to prepare to deal with them when and if they do.

Ingredient 5. Those responsible for the work redesign project are ready and able to evaluate, iterate, and evaluate again throughout the life of the project. A striking feature of the successful projects we observed was the orientation of key personnel to learning from the change activities--including those activities that could be viewed as interim failures. And, given that there is no neat "package" available for undertaking work redesign in all circumstances, it seems essential that implementors will have to learn as they go how most effectively to design, implement, and manage enriched jobs in the local organization.

The costs of pretending expertise when that expertise is not really present are, in my view, too high to bear. Also high are the costs of adopting an open, evaluative stance, a stance that allows learning from failures as well as success, a stance that involves experimentation with evaluation methodologies as well as with the content of work redesign. But, to my view, these latter costs are much preferable---because they can lead to longer-term increases in knowledge and expertise, and because they can help increase the base of understanding on which other people in other organizations can plan their own work redesign activities.

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The message of this piece, I suppose, is simply that implementation of job enrichment is about as tough a managerial and consultative challenge as there is. But the potential of work redesign, the gains that can be realized, also are very substantial. Unless we begin to take the challenge of implementation with the seriousness it deserves, I fear, the opportunity for personal and organizational change through the redesign of work may slip away for many years. We should not let that happen.

Footnotes

1. This paper originally was presented in November, 1974 at a symposium sponsored by the Western Electric Corporation to commemorate the 50th anniversary of the beginning of the Hawthorne Studies. The research on which the paper is based was supported by the Office of Naval Research (Organizational Effectiveness Research Program, Contract No. N00014-67A-0097-0026; NR 170-744) and by the U. S. Department of Labor (Manpower Administration, Grant No. 21-09-74-14). Grateful acknowledgement is made to the numerous organizations that allowed us to examine their work redesign activities, warts and all, and to the following individuals who collaborated in the research: Kenneth Brousseau, Daniel Feldman, Linda Frank, Robert Janson, Andrea Miller, Greg Oldham, and Kenneth Purdy.
2. For numerous examples of successful job enrichment projects, see Davis & Taylor (1972), Glaser (1974), Maher (1971), Rush (1972), and Walters & Associates (in press).
3. For other treatments of problems often encountered in the conduct of job enrichment projects, see Beer (1975), Glaser (1974), and Sirota & Wolfson (1972a; 1972b).
4. When questioned on this point, managers in one organization reported that they did not believe that the employees (to whom they were about to give considerable additional responsibility and initiative for planning and carrying out the work of the organization) were capable of understanding and using theory. ~~Perhaps an equally reasonable explanation is that the managers themselves did not understand the theories--or that they were embarrassed by~~ them.

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