43458

# A Process for Reducing Occupational Stress

Neal Q. Herrick
The Academy for Contemporary Problems
Columbus, Ohio

Introduction. The process for reducing occupational stress outlined in this paper was developed by Ohio business and labor leaders. It is currently being used in one municipality (Springfield, Ohio) and in a Cleveland factory. The Springfield/AFSCME effort does not, at this point, include the uniformed city employees. It is not unlikely, however, that an interest may develop on the part of the police and fire groups as the effort among the non-uniformed employees progresses. If so, these Springfield organizations would become pioneers in the "quality of work life" field. Theirs would be the first formal employee/management efforts among uniformed municipal employees to improve the quality of work life and of the services provided to the public. It would seem to this writer that the principles of security, equity, individuation and participation are as applicable to uniformed as to non-uniformed employees. Further, the process outlined in this paper is participative and therefore self-adjusting. That is, changes in work methods are developed participatively by the institutions and employees involved and so are directed to the particular problems and circumstances of each situation. Both the principles and the process guard against Procrustean solutions. The process seeks to give people a greater influence over both the quality of their work life and the quality of the work they do. This should be as desirable for police officers as for factory workers.

Summary. Occupational stress exists to the extent that the quality of an organization's work life (i.e., the degree to which workers experience security, equity, individuation and participation) is low. Improvements in the quality of work life are hypothesized to reduce occupational strain (i.e., improve satisfaction, health and behavior) and to have positive economic outcomes. Preliminary findings of the Ohio Quality of Work Project are consistent with this hypothesis. Improvements in the quality of work life should be attempted by participative processes in order to achieve optimum and lasting results. The institutions which must participate are labor and management. In addition, all groups of rank-and-file employees must not only be represented on decision-making bodies but also be personally involved in decisions regarding their immediate jobs and working environment. This paper will comment on these points in the context of describing the background, process, status, research design and preliminary findings of the Quality of Work Project.

1. Background. Particularly since the 1971 balance of trade deficit, there has been an increased interest on the part of the government, employers and organized labor in improving the non-economic aspects of work. This increased interest has been based in large part on the hypothesis that improvements in these aspects of the work situation can result in increased productivity. To date longitudinal studies of the effects of most work change efforts have been sketchy. This is understandable since research goals are not usually a major part of individual company efforts to improve the quality of work. Companies are interested in collecting information to facilitate transferability within the organization, but not in helping their competitors. There is also a reluctance to publish information on programs that fail. The 1973 report of a

special task force to the Secretary of Health, Education and Welfare, Work in America, was able to gather only thirty-four published accounts of action research on work restructuring--all of which described successful efforts.

Recently, however, foundations and government have begun to sponsor action research efforts with the stipulation that the results be made available to others. Some examples are:

- The National Commission on Productivity and Work Quality joined with Harvard University and others to fund a milestone quality of work demonstration project in a west Tennessee auto parts factory in the summer of 1973. This project involved extensive baseline measurements of the quality of work and its probable outcomes. In addition to the completion of questionnaires, these measurements included medical exams and, for a subsample of employees, lengthy interviews. They also included an application of the writer's system for estimating potential increases in labor productivity.[1/] The research was done during the summer of 1973 and remeasurements will be instituted at some time in the future. This project is being administered by the Harvard Project on Technology, Work and Character under the direction of Michael Maccoby. It is of particular significance in this country to be initiated jointly by organized labor and management.

- The National Quality of Work Center, directed by Ted Mills and an affiliate of the University of Michigan's Institute for Social Research, is contributing to the funding of the west Tennessee plant experiment and has arranged for and funded a joint project between a western Pennsylvania coal mine and the United Mine Workers. The latter project is under the guidance of Eric Trist now at the Wharton School of Finance and Commerce and formerly Chairman of the Tavistock Institute, London, and Grant Brown of the Pennsylvania State University School of Mines. The National Quality of Work Center is also sponsoring a project involving professional engineers in the Tennessee Valley Authority.

- The Institute for Social Research of the University of Michigan, in addition to its affiliation with the National Quality of Work Center, is conducting a number of other action projects. The exact nature of the questionnaires and measurement methodologies involved varies from site to site, but -- in general -- follows the principle that there should be some tracking of the work environment as the cause and of human and economic outcomes as the results. The principle architects of the Institute for Social Research programs are Ed Lawler and Stan Seashore.

- The UCLA Quality of Work Center, under the guidance of Lou Davis, is also involved in a number of action research projects. As with the Institute for Social Research the measurement instruments are usually tailored to the particular situation.

1/ Herrick, Neal Q., The Quality of Work and Its Outcomes: Estimating Potential Increases in Labor Productivity, Columbus, Ohio: Academy for Contemporary Problems, 1975.

- The Economic Development Administration of the U.S. Department of Commerce is sponsoring an innovative project in Jamestown, New York which started with a city-wide labor/management committee and is now initiating plant-level quality of work life efforts.

- In 1973 the Ohio Governor's Business and Employment Council, chaired by George S. Dively of the Harris Corporation, formed the Ohio Quality of Work (Ohio QWP) under the guidance of the Ohio Quality of Work Committee. This Committee was chaired by Joseph Tomasi, Director, Region 2B, UAW and made up of O. Pendleton Thomas, Chairman and Chief Executive of the B.F. Goodrich Company; Everett Ware Smith, Chairman, Cleveland Trust Company; and Frank King, then President of the Ohio AFL-CIO. The Project is now sponsored by the Ohio Development Center and The Academy of Contemporary Problems. Mr. Tomasi is still Chairman of the Ohio Quality of Work Committee which is now being reconstructed under the new sponsors. The Ohio QWP differs from other current efforts in that it attempts to create enough demonstrations in one limited geographic area (i.e., the State of Ohio) to make an economic and social impact on that area. Also, the project is based on the concerned institutions within the State. Ownership by these institutions (i.e., unions, management, and government) should both give the Project continuity and assure the dissemination of knowledge and techniques beyond the individual demonstration companies. The Ohio QWP is already being considered as a model by several other states, including Massachusetts and North Carolina.

It is indication of the state-of-the-art with regard to the quality of work action research that, to the writer's knowledge, none of the above projects have been underway long enough that followup measurements are available. The closest project may be the west Tennessee auto parts plant. About 18 months have now elapsed since baseline measurements were taken in this effort.

2. Process. [2/] The process followed in an Ohio QWP demonstration site is designed to facilitate the involvement of all parties in an effort to increase the extent to which security, equity, individuation and participation are present in people's jobs and in the work environment. The critical first step is the formation of an establishment Quality of Work Life (QWL) Committee. In an organized situation this Committee consists of the chief executive officer of the facility, the union president and other management and union officials selected by them along with representatives from supervision and from the principal groups of non-supervisory employees. these QWL Committees usually evolve while the establishment is considering the possibility of a quality of work life effort. This involves the various groups not only in conduction the effort but in deciding whether or not to

---

2/ This process is detailed as part of a written agreement prior to the initiation of the quality of work life effort. In an organized plant, the agreement is signed by labor, management and the Ohio QWP and is ratified by the membership. In a non-union situation, it is signed by management and the Ohio QWP. This description assumes an organized situation, but the basic steps are applicable to a non-union facility.

to undertake one. The process agreed to for implementation by the Committee has three identifiable phases.

a. Phase I - Six Months. The following steps are taken under the guidance of the QWL Committee.

(1) Questionnaire. Employees, on a voluntary basis, fill out questionnaires approved by the QWL Committee. The questionnaires are provided by and administered by the Ohio QWP. They are completed during working hours in groups of approximately 20-25 employees. Individual responses are held strictly confidential.

(2) Feedback. Summaries of questionnarie results are presented to employees in groups of 20-25 during working hours. Approximately one and one-half hours is required to fully discuss results. Each discussion is led by a first echelon supervisor and a shop steward with the assistance of a Ohio QWP staff member.

(3) Report to Quality of Work Committee. The Ohio QWP furnishes a report to the QWL Committee summarizing and commenting on questionnaire results and feedback sessions.

(4) Productivity Data. Working with personnel from the company and union, Ohio QWP staff make an estimate of potential productivity increases in labor productivity.

(5) Technical Assistance.

(a) An Ohio QWP staff member sits with the QWL Committee at its meetings.

(b) Educational and informational services are available at the request of the QWL Committee.

Such services include:

- in-house seminars led by nationally recognized experts in the field of work restructuring.
- multi-plant seminars where labor/management groups from all Ohio QWP demonstration projects meet to discuss their efforts with work restructuring specialists and to exchange ideas and experiences with each other.
- visits by Committee members and other employees to organizations where successful experiments have taken place.
- provision to the Committee of reading material and research servcies by the Ohio QWP information clearinghouse.

(c) Either the Ohio QWP staff member who sits with the QWL Committee or a plant employee serving as Administrative Assistant to the Committee normally acts as recording secretary. He writes an account of the events which take place during the demonstration period for the use of the QWL Committee and the Ohio QWP.

b. Phase II - Two Months.

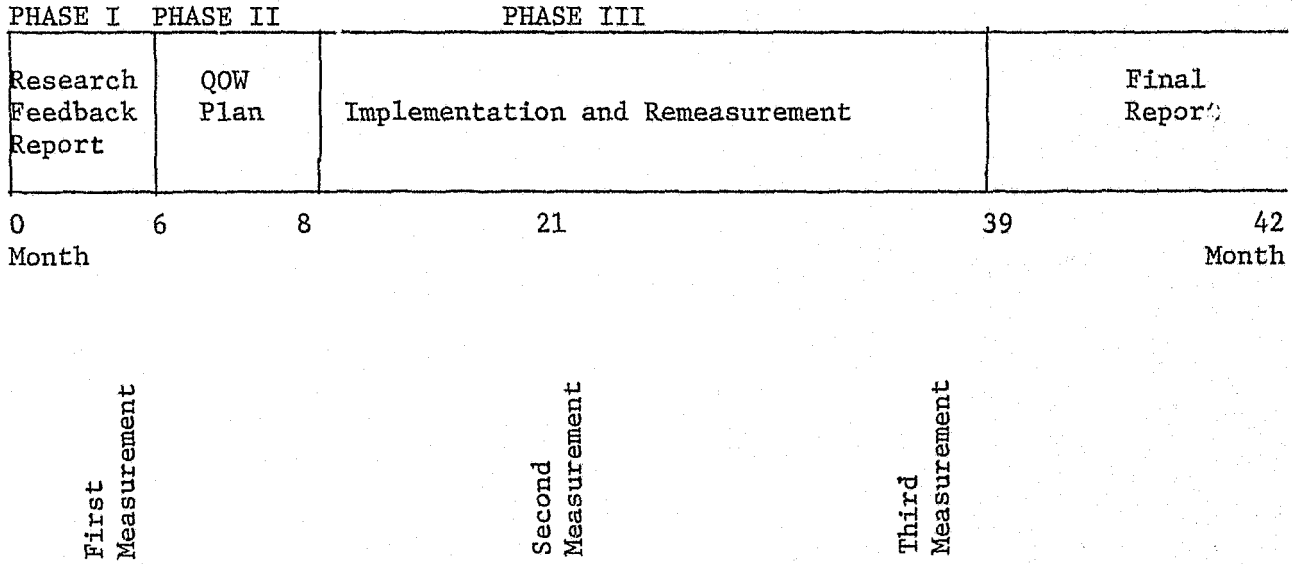
(1) Quality of Work Plan. Upon receiving the questionnarie/ feedback report, the next steps are in the hands of the QWL Committee. Based on the information provided and on the educational activities of the first phase, the Committee develops a quality of work plan authorizing any policy or structional changes, techniques, delegations, process steps, etc., it considers appropriate. This plan is ratified by the membership.

(2) Technical Assistance. Educational activities, information services and technical assistance continue as desired by the QWL Committee.

c. Phase III - Implementation and Remeasurement.

While, in fact, a number of work restructuring activities normally begin during Phases I and II, Phase III is the formal "implementation" period. Educational activities and assistance continue as requested by the QWL Committee. Remeasurements occur 18 and 36 months from the date the questionnaires are initially administered. This begins a regular program of employee assessment of working conditions. The remeasurements also include some form of feedback mechanism.

For the time a quality of work demonstration effort is agreed to, the timetable is approximately as follows:



3. Status of Ohio QWP Activities There are now two demonstration efforts underway, both based on cooperative agreements negotiated between labor and management and ratified by the membership. We plan to initiate eleven additional efforts during the next two and one-half years. The status of the two existing efforts can best be described by the following quarterly reports recently prepared by the respective QWL Committees[3/].

DEMONSTRATION EFFORTS. . .

Site #1-Northeastern Ohio Manufacturing Establishment. The Committee agreed to change its name to the "Quality of Work Life Committee" (QWLC). It felt that this more accurately reflected the purpose of the program. The QWLC met with departmental groups of all factory and office people to present the results of the attitude survey administered at the opening of the project and to ask the people what they felt the QWLC should be doing to improve the work life of the facility. These meetings were important in that they represented the first step toward meeting one of the prime concerns of the people: their inability to participate in the grass root decision making process. Primarily as a result of these meetings, the QWLC has originated the following:

General Changes. . .

- Each factory and office department was asked to elect a QWLC coordinator who, together with the supervisor of that department, would review the "qwl" suggestions that might arise within the department.

- The QWLC devised a form by which an individual employee is informed of the discussion and action taken either in the department or by the QWLC in response to individual suggestions. This form is intended merely as a written confirmation of dialogue that should take place by a member of the QWLC or the departmental coordinator with the individual suggestor.

- The QWLC agreed to employ a half-time staff assistant to perform a number of coordinating and recording functions. The staff assistant works for the QWLC and is paid in equal parts by the company, the union, and the Ohio Quality of Work Project.

Specific Projects. . .

- A subcommittee has worked out a new employee orientation process under which the personnel department, supervision and the union play a meaningful and cooperative role in more completely and cooperatively introducing new people to the workplace.

3/ Taken from Ohio Quality of Work Project Newsletter #5, Winter 1974-75.

Members of the Quality of Work Committee have initiated a program to deal with high absenteeism among loaders in the refuse collection division. Under provisions of the Collective Bargaining Agreement, the City provides any interested loaders with training on the operation and driving of packer truckers. After training, each three-man crew (one drive and two loaders) is allowed to operate as an autonomous group in deciding when each member drives the truck. This allows all members of the crew a chance for periodic relief from inclement weather. It also gives them a voice in a basic decision affecting their work environment. The results are not yet available, but there are indications of improved attitudes and reduced absenteeism.

4. Research Design. Our immediate objective is to experiment with and diseminate processes and techniques for improving the quality of work life to Ohio businesses and other work organizations. Our long range (i.e., 3-7 years) aim is to answer more definitively than has been done in the past questions regarding the relationship of the quality of work life to human and economic outcomes. The nature of the Ohio QWP (i.e., it involves action rather than survey research and contemplates a finite number of experiments to be evaluated by uniform methodologies) lends itself to attaining this long-range aim.

   a. Concept. The concept behind the use of the dimensions and subdimensions described below is that the extent to which an individual sees his job and work environment as possessing them impacts on his satisfaction, health and behavior.[4/]

   b. Quality of Work Dimensions. The dimensions and subdimensions measured are briefly described below.

      (1) Security

      Security from Loss of Employment - feeling free from fear and anxiety about losing one's job.

      Security from Physical Harm - perceiving one's work environment as safe and healthy.

      Security from Want - feeling that one has enough income, insurance and other fringe benefits to be able to live adequately.

      (2) Equity

      Equity in Compensation - believing that one is paid fairly for one's contribution to the product and in relation to what other people in the company and in other companies are paid.

4/ This concept is detailed in "Humanizing Work: A Priority Goal of the 1970's", Neal Herrick and Michael Maccoby, Worker Alienation, 1972, Hearings before the Committee on Labor and Public Welfare, U.S. Senate.

Equity in Promotions - Feeling that promotions are given fairly based on a person's qualifications for the job.

Equity in Work Standards - feeling that the things one is asked to do on the job are fair compared to what other people are expected to do.

Lack of Categorical Discrimination - believing that people in the organization are treated fairly and have the same opportunities regardless of their race, sex, or age.

(3) Individuation

Variety - perceiving one's job as providing a chance to do different things and work with different people.

Growth and Learning - one's feeling that doing one's job provides a chance to use one's capabilities, learn new things and develop one's skills.

Autonomy - believing that one has personal independence and control over the performance of one's job.

Feedback - the opportunity to self-assess how well one performs on the job.

(4) Participation - feeling that the work group to which one belongs has decision-making control over things that affect it.

c. Specifiers. The research considers two character dimensions which might affect the outcomes of the quality of work for the individual: authoritarianism and life attraction. Authoritarianism is measured by standard F-scale questions. The life attraction (i.e., biophillia/necrophilia) concept was developed by Eric Fromm and is described in the Heart of Man, Harper & Rowe, 1964. The questions for this scale were contributed by Fromm's colleague, Michael Maccoby. The importance of measuring attitudes does not lie solely in identifying the attitudes which are most receptive to and most benefited by different work structures. The longitudinal nature of the Ohio demonstration efforts should also allow them to shed light on the question of what, if any, changes in these attitudes might occur over the long term in response to changes in work structures.

d. Outcome Measures.[5/] In order to meet our long-range research aim, we need to speculate on possible human outcomes of quality

5/ In addition to the human outcomes discussed here, economic outcomes are measured through the use of personnel and accounting records.

of work improvements. Having done this, we then devised a set of questions to measure each possible outcome. In defining the gamut of these possible outcomes, we need to be inclusive rather than exclusive. We did not want to decide beforehand that there is no relationship between the quality of work and any conceivable outcome. This would preclude our ever settling the question of whether such a relationship exists. The dimensions and sub-dimensions of the outcomes measured by the questionnaire are described below.

(1) Satisfaction

With the job - feeling that one's satisfied with the job and the kind of work one does.

With the company - feeling that the company is fair and credible and is a good place to work.

With the union - feeling that the union is fair, helpful and effective and being active in union affairs.

(2) Health

Physical - reporting few instances of symptoms which might be psychosomatic.

Mental - reporting high life satisfaction and self-esteem and little anger.

(3) Behavior

Off-the-Job Activeness - reporting high levels of family, community and political activity.

5. Preliminary Results. Since the two demonstration efforts have been underway for only 9 and 14 months respectively, it is unlikely that any substantial changes in the quality of work life have been accomplished. In addition, our remeasurements are not scheduled until 18 months after the baseline data collection. However, it might be appropriate to conclude this paper with a commentary on the baseline data and the change process.

a. Baseline Data. One-time survey data is, of course, very limited in its application. It cannot prove causal relationships. However, it can suggest avenues of inquiry to be explored when longitudinal data becomes available. Table I shows the associations between each of the quality of work life dimensions and each of the possible outcomes using aggregated data from the two Ohio demonstration organizations. For a number of reasons, we should be extremely careful about drawing conclusions from this table.

. This is survey data. One-time survey can only suggest lines of inquiry. It cannot demonstrate causal relationships.

TABLE I. PRODUCT MOMENT CORRELATIONS BETWEEN QUALITY OF WORK LIFE DIMENSIONS AND SUBDIMENSIONS (INDICATORS OF STRESS) AND THEIR HYPOTHESIZED OUTCOMES (INDICATORS OF STRAIN)

| Quality of Work Life Dimensions | Outcomes | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Job Satisfaction | Company Satisfaction | Union Satisfaction | Physical Health | Life Satisfaction | Self Esteem | Absence of Anger | Off-the-job Activeness | Opinion of Group's Productivity |
| Security | .43 | .54 | .22 | .22 | .32 | .21 | .21 | | 11* |
| From loss of employment | .41 | .37 | .28 | .10* | .22 | .17 | .17 | | |
| From physical harm | .25 | .41 | | .23 | .12 | | .17 | | .13* |
| From want | .26 | .39 | .17 | .12 | .37 | .19* | .13* | | .14* |
| Equity | .54 | .65 | .26 | .19 | .29 | | | | .24 |
| In compensation | .34 | .42 | .14 | .12 | .28 | | | | |
| In promotions | .37 | .54 | .27 | .12* | .23 | | .13* | | .21 |
| In work standards | .53 | .48 | .15 | .13 | .17 | | | | |
| Lack of discrimination | .28 | .50 | .14* | .17 | .15* | | | | .24 |
| Individuation | .41 | .34 | .17 | .12* | .21 | .20 | .22 | .11 | .27 |
| Variety | .21 | .16 | .15 | .10* | | .15* | .23 | .11* | .20 |
| Growth and learning | .38 | .31 | .24 | .10* | .18 | .19 | .12* | .13 | .22 |
| Autonomy | .26 | .25 | | | .20 | | .15* | | -.12 |
| Participation | .14 | .28 | | | | | | .17 | .16 |

*Asterisked correlations are significant at the .05 but not at the .01 level of probability. All others are significant at or beyond the .01 level. The life satisfaction, self-esteem and anger scales were added after the first demonstration effort began and so have an N of only about 314. The highest dimension correlations for each outcome are underlined.

- It is aggregated data. Results have not yet been tested using the specifying or demographic variables. Relationships which are now distorted or masked should be clearer once this has been accomplished.

- Perhaps most important, this table reflects associations but not inter-associations. The essence of the Ohio QWP's hypothesis regarding the impact of the work environment is that the dimensions of the quality of work life act in concert, that different combinations of the dimensions may have radically different outcomes. For example, high security and equity combination with low individuation and participation may have human and economic results which are quite different from those produced by low security and equity combined with high individuation and participation. In order to test this hypothesis, a much larger number of respondents is required than the 551 who completed questionnaires in the first two demonstration efforts.

Despite these serious qualifications, it is at least suggestive that Table I does reflect generally positive associations:

- Security is the dimension most associated with physical health, life satisfaction and self-esteem. It has significant associations with all outcomes except off-the-job activeness.

- Equity has the highest associations of any dimension with job, company and union satisfaction and is outdone only by security in its correlations with physical health. It is interesting that workers' perceptions of "fairness" have almost as great an association with pains, cramps, stiffness, aching, swelling, fatigue, colds, etc., as do their opinions of the work environment in terms of hazards, temperature, noise, fumes, chemicals, etc.

- Individuation leads the four dimensions in its association with union satisfaction. In addition, it has significant associations with all outcomes. The negative association of autonomy with the worker's opinion of his group's productivity is worthy of note.

- Participation associates significantly with job satisfaction, company satisfaction, off-the-job activeness and the worker's opinion of his groups productivity. This last association may underline the need for dove-tailing autonomy with participation in the workplace. Under traditional structures, it may be extremely difficult for them to co-exist in the same work situation.

- Job satisfaction, company satisfaction, physical health, life satisfaction and self-esteem all correlate most highly with security. Union satisfaction is most closely associated with equity. Absence of anger and the worker's opinion of his

group's productivity are most highly correlated with individuation. As might be expected, off-the-job activeness is most closely associated with participation.

- Job and company satisfaction associate significantly with all dimensions and subdimensions. This emphasizes the direct advantage to the company of improving all aspects of the quality of work. Union satisfaction seems to follow company satisfaction, but the correlations are less marked and, for autonomy and participation, disappear.[6/] Physical health, aside from its obvious relationship to a safe and healthful workplace, has significant associations with variety, growth and learning and with all the subdimension's of security and equity. Life satisfaction is significantly and positively associated with all the subdimensions of work quality except participation.

- Self-esteem has its highest associations with security from want and security from loss of employment. It also correlates significantly with variety and with the opportunity for growth and learning. Absence of anger is significantly associated with all aspects of security and individuation. While off-the-job activeness has its great association with participation, it also correlates significantly with variety and with the opportunity for growth and learning. Workers' opinions of their groups' productivity correlates significantly and positively with all subdimensions except security from loss of employment, equity in compensation and autonomy.

- The opportunity for growth and learning is the only subdimension which is significantly associated with all nine outcomes.

b. Structure. Experience suggests that certain points are of crucial importance in any labor/management quality of work life effort. At present, we are not sponsoring any efforts in unorganized facilities and so can only speak to situations where the employees are represented. These subjective impressions are not intended to be comprehensive and it is recognized that, in different facilities with different social and technological characteristics, our impressions might have been quite different. Assume a facility, however, where persons of good will representing labor and management have recognized their mutual self-interest in improving the quality of work life in the organization and have joined together to strive toward the twin goals of increased worker well-being and productivity. The parties understand the need for maintaining the adversary relationship, realize the inherent difficulties in a schizoid (now adversary/now cooperative)

6/ It should be noted that the union satisfaction scale used in this analysis includes questions regarding the extent to which the worker is involved in union activities. Subsequent analyses will explore the possibility that this "union activeness" may bear an inverse relationship to the worker's perception of the quality of work life and thus mask the full effect of the quality of work on the present union satisfaction scale.

arrangement, are excited by the quality of work effort in both self interest and visionary terms and have committed themselves to it. Now what are some of the basic difficulties which lie ahead - flowing out of our particular culture and out of human nature in general? Here are only two of these difficulties: (1) willingness to open Pandora's box and (2) finding the means of moving to "shop-floor" style participation utilizing the existing system of representative participation.

(1) Pandora's Box. Pandora's Box, in this case, is filled with captive employee expectations. When these expectations are released, the institutions involved must either make genuine efforts to meet them or deal with active employee resentment and frustration. When labor and management enter into a cooperative agreement aimed at improving the quality of work life and when this agreement is submitted to the membership for ratification, they are glancing in the direction of Pandora's box. When they meet as a Quality of Work Life Committee, invite rank-and-file employees to attend and take rank-and-filers with them to conferences and on visits to other plants, they are moving hesitantly toward it. When they administer an employee questionnaire, they have their hands on the lid. But the box is not open until first-line supervisors and shop stewards have fed back the results of the questionnaire and discussed them at length with each work group in the facility. At this point, the institutions must either meet the newly-freed expectations or deal with them in other ways. The feedback discussions are the sticking-point and many reasons (e.g., loss of production time, delicate economic or internal situations, etc.) can be mustered not to hold them. Unless they proceed with full discussions of the questionnaire results, however, the institutions involved have voluntarily taken a two strike count before going to bat.

(2) Shop Floor Participation. This point is closely related to the first. It is the problem of dealing with cause instead of symptom, of failing to push the participation process to the shop floor--in sum--of failing to provide the employees with the tool they need to improve their work life. This tool is participation.

Shop floor participation is different in nature from the other dimensions of the quality of work life. It is both an end and a means to an end. It is an end because participative structures are intertwined with the basic values of cooperation and activeness. It is a means because it can create conditions of security, equity and individuation which rest solidly on the will and ownership of the employees.

But shop floor participation is not increased one iota by the substitution of decisions made by a Quality of Work

Life Committee for decisions previously made unilaterally by management. It should not be the business of the QWL Committee to resolve problems and complaints. The business of the Committee should be to deal with the causes of these problems and complaints. This can be done by (1) decentralizing the authority to make substantial decisions to the lowest work unit head and (2) experimenting with structures which allow the unit head to share the knowledge and understanding which make it feasible for him to exercise this authority and then--to share the actual authority itself. This prospect is frightening to the institutions involved. But, if we are to substantially improve security, equity and individuation, we must take that admittedly difficult leap from the deliberations of a Quality of Work Life Committee to group involvement in arranging work methods, setting production quotas, and otherwise affecting the decisions which are most effectively made on the "shop floor."

6. Conclusion. The Ohio Quality of Work Project is an attempt to develop and institutionalize processes for reducing occupational stress. Its effectiveness depends on its joint ownership by industry and organized labor. Processes for reducing occupational stress can have continuity and impact only if they are developed by and become an integral part of these institutions. The Ohio Quality of Work Project, within this context, also seeks to respond to the need for "Future research"..(to).."evaluate attempts to reduce job stress in terms of actual levels of stress reduction achieved and impact on physical and mental health over an extended period of time."[7/] These are our objectives: to facilitate the development and dissemination of processes for change and to evaluate the impact of this change on human and economic outcomes.

7/ Margolis, B.L., Kroes, W.H. and Quinn, R.P., "Job Stress: An Unlisted Occupational Hazard", Journal of Occupational Medicine, XVI, No. 10 Oct., 1974).

END