6 People in Organizations

Management succeeds or fails in proportion as it is accepted without reservation by the group as authority and leader.
ELTON MAYO

The entire organization must consist of a multiple overlapping group structure with *every* work group using group decision-making processes skilfully.
RENSIS LIKERT

The average human being learns, under proper conditions, not only to accept but to seek responsibility.
DOUGLAS MCGREGOR

The 9,9 orientation to the management of production and people aims at integrating these two aspects of work under conditions of high concern for both.
ROBERT R. BLAKE and JANE S. MOUTON

The successful manager must be a good diagnostician and must value a spirit of enquiry.
EDGAR H. SCHEIN

The primary functions of any organization, whether religious, political or industrial, should be to implement the needs of man to enjoy a meaningful existence.
FREDERICK HERZBERG

The closest approximation to the all-round good leader is likely to be the individual who intuitively or through training knows how to manage his environment so that the leadership situation best matches his leadership style.
FRED E. FIEDLER

Only organizations based on the redundancy of functions (as opposed to the redundancy of parts) have the flexibility and innovative potential to give the possibility of adaptation to a rapid change rate, increasing complexity and environmental uncertainty.
ERIC TRIST

As society changes, so must its organizations; as organizations change, so must their pay systems.
EDWARD E. LAWLER

Organizations are systems of interdependent *human beings*. Although this has been recognized implicitly by the writers in the previous sections, and explicitly by some, their main concern has been with the 'formal system' – its aims, the principles on which it should be constituted to achieve them, and the methods by which it should function. People have then been considered as one of the essential resources required to achieve the aims. But people are a rather special sort of resource. They not only work for the organization – they *are* the organization.

The behaviour of the members of an organization clearly affects both its structure and its functioning, as well as the principles on which it can be managed. Most importantly, human beings affect the aims of organizations in which they participate – not merely the methods used to accomplish them. The writers in this chapter are social scientists specifically concerned to analyse the behaviour of people and its effects on all aspects of the organization. They have studied human attitudes, expectations, value systems, tensions and conflicts and the effects these have on productivity, adaptability, cohesion and morale. They have regarded the organization as a 'natural system' (an organism whose processes have to be studied in their own right) rather than as a 'formal system' (a mechanism designed to achieve particular ends).

Elton Mayo is the founding father of the 'Human Relations' movement which brought into prominence the view that workers and managers must first be understood as human beings. Rensis Likert and Douglas McGregor reject the underlying assumptions about human behaviour on which formal organizations have been built and propose new methods of management based on a more adequate understanding of human motivation, while Robert Blake and Jane Mouton describe a form of management which shows equally high concern for both production and people.

Edgar Schein's concern has been to understand and manage the relationship between the individual's career and the organization's culture. Frederick Herzberg determines how people's characteristically human needs for growth and development may be satisfied in work.

Fred Fiedler analyses appropriate styles of leadership for effectiveness in differing situations. Eric Trist and his colleagues at the Tavistock Institute demonstrate the utility of designing groups and organizations to take account of human and social, as well as technical, concerns. Edward Lawler highlights an aspect of this approach in emphasizing the impact of payment systems upon the motivation and performance of organizational members.

Elton Mayo and the Hawthorne Investigations

Elton Mayo (1880–1949) was an Australian who spent most of his working life at Harvard University, eventually becoming Professor of Industrial Research in the Graduate School of Business Administration. In this post he was responsible for the initiation and direction of many research projects, the most famous being the five-year investigation of the Hawthorne works of the Western Electric Company in Chicago. Immediately prior to his death, Mayo was consultant on industrial problems to the British government.

Elton Mayo has often been called the founder of both the Human Relations Movement and of industrial sociology. The research that he directed showed the importance of groups in affecting the behaviour of individuals at work and enabled him to make certain deductions about what managers ought to do.

Like most of his contemporaries, Mayo's initial interests were in fatigue, accidents and labour turnover, and the effect on these of rest pauses and physical conditions of work. One of his first investigations was of a spinning mill in Philadelphia where labour turnover in one department was 250 per cent compared with an average of 6 per cent in all the other departments. Rest pauses were introduced by Mayo and production and morale improved. When the operatives took part in fixing the frequency and duration of the pauses, a further improvement was registered and morale in the whole factory also rose. At the end of the first year, labour turnover in the department concerned was down to the average for the rest of the mill. The initial explanation was that, in breaking up the monotony of the job, the rest pauses improved the mental and physical conditions of the workers. However, after subsequent investigations, Mayo modified his explanation.

The major investigation which led to this modification and which laid the basis for a great many subsequent studies was the Hawthorne Experiment carried out between 1927 and 1932. Prior to the entry of Mayo's team, an inquiry had been made by a number of engineers into the effect of illumination on workers and their work. Two groups of workers had been isolated: the lighting conditions for one had been varied and for the other held constant. No significant differences in output were found between the two; indeed whatever was done with the lighting, production rose in both groups.

At this point the industrial research team directed by Mayo took over. The first stage of their inquiry is known as the 'relay assembly test room'. Six female operatives, engaged in assembling telephone relays, were segregated in order to

observe the effects on output and morale of various changes in their conditions of work during five years of experiment. A continuous record of output was kept. At first a special group payment scheme was introduced, whereas previously the women had been grouped with a hundred other operatives for incentive payment purposes. A total of more than ten changes introduced at various times included rest pauses in several different forms (varying in length and spacing), shorter hours and refreshments. Before putting the changes into effect, the investigators spent a lot of time discussing them with the women. Communication between the workers and the research team was very full and open throughout the experimental period. Almost without exception, output increased with each change made.

The next stage in the experiment was to return to the original conditions. The operatives reverted to a 48-hour six-day week, no incentives, no rest pauses and no refreshment. Output went up to the highest yet recorded. By this time it had become clear, to quote Mayo, 'that the itemized changes experimentally imposed … could not be used to explain the major change – the continually increasing production'. The explanation eventually given was that the women experienced a tremendous increase in work satisfaction because they had greater freedom in their working environment and control over their own pace-setting. The six operatives had in fact become a social group with their own standards and expectations. By removing the women from their normal work setting and by intensifying their interaction and cooperation, informal practices, values, norms and social relationships had been built up, giving the group high cohesion. Also, the communication system between researchers and workers was extremely effective; this meant that the norms of output were those that the women felt the researchers desired. The supervisors also took a personal interest in each worker and showed pride in the record of the group. As a result, workers and supervisors developed a sense of participation and established a completely new working pattern. Mayo's generalization was that work satisfaction depends to a large extent on the informal social pattern of the work group. Where norms of cooperativeness and high output are established because of a feeling of importance, physical conditions have little impact.

However, this is the explanation arrived at in later years. At the time of the actual experiment, the women's continually increasing output was regarded as something of a mystery, leading to an inquiry into conditions in the factory at large. This took the form of an interview programme. It was quickly realized that such a programme told the researchers little about actual conditions in the factory, but a great deal about the attitudes of various employees. The major finding of this stage was that many problems of worker–management cooperation were the result of the emotionally based attitudes of the workers rather than of objective difficulties in the situation. Workers, thought Mayo, were activated by a 'logic of sentiment', whereas management was concerned with the 'logic of cost and efficiency'. Conflict is inevitable unless this difference is understood and provided for.

The third stage of the investigation was to observe a group performing a task in a natural setting, that is, a non-experimental situation. A number of male employees in what became known as the 'bank wiring observation room' were put under constant observation and their output recorded. It was found that they restricted

their output; the group had a standard for output and this was not exceeded by any individual worker. The attitude of the members of the group towards the company's financial incentive scheme was one of indifference. The group was highly integrated, with its own social structure and code of behaviour which clashed with that of management. Essentially this code consisted of solidarity on the part of the group against management. Not too much work should be done: that would be rate-busting; on the other hand, not too little work should be done: that would be chiselling. There was little recognition of the organization's formal allocation of roles. This was confirmation of the importance of informal social groupings in determining levels of output.

Taken as a whole, the significance of the Hawthorne investigation was in discovering the informal organization which, it is now realized, exists in all organizations. It demonstrated the importance to individuals of stable social relationships in the work situation. It confirmed Mayo's wider thinking that what he calls the 'rabble hypothesis' about human behaviour (that each individual pursues only narrow rational self-interest) was completely false. It confirmed his view that the breakdown of traditional values in society could be countered by creating a situation in industry conducive to spontaneous cooperation.

For Mayo, one of the major tasks of management is to organize such spontaneous cooperation, thereby preventing the further breakdown of society. As traditional attachments to community and family disappear and as the workplace increases in importance, the support given to people by traditional institutions must now be given by the organization. Conflict, competition and disagreement between individuals are to be avoided by management understanding its role as providing the basis for group affiliation. From the end of the Hawthorne project to his death, Mayo was interested in discovering how spontaneous cooperation could be achieved. It is this which has been the basis of the Human Relations Movement – the use of the insights of the social sciences to secure the commitment of individuals to the ends and activities of the organization.

The impact of Hawthorne and Mayo on both management and academics has been tremendous. It led to a fuller realization and understanding of the human factor in work situations. Central to this was the discovery of the informal group as an outlet for the aspirations of the worker. His work also led to an emphasis on the importance of an adequate communication system, particularly upwards from workers to management. The investigation showed, to quote Mayo, that 'management succeeds or fails in proportion as it is accepted without reservation by the group as authority and leader'.

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Rensis Likert and Douglas McGregor

Rensis Likert (1903–1981) was an American social psychologist who in 1949 established the Institute of Social Research at the University of Michigan. Until his retirement in 1969, he was thus at the head of one of the major institutions conducting research into human behaviour in organizations. On his retirement he formed Rensis Likert Associates, a consulting firm, to put his ideas about the management of organizations into wider practice. His books are based on the numerous research studies which he and his colleagues conducted, his last book being jointly written with his research collaborator and wife, Jane Gibson Likert.

Douglas McGregor (1906–1964) was a social psychologist who published a number of research papers in this field. For some years he was president (that is, chief executive) of Antioch College and he has described how this period as a top administrator affected his views on organizational functioning. From 1954 until his death, he was Professor of Management at the Massachusetts Institute of Technology.

'Managers with the best records of performance in American business and government are in the process of pointing the way to an appreciably more effective system of management than now exists,' proclaims Likert. Research studies have shown that departments which are low in efficiency tend to be in the charge of supervisors who are 'job-centred'. That is they 'tend to concentrate on keeping their subordinates busily engaged in going through a specified work cycle in a prescribed way and at a satisfactory rate as determined by time standards'. This attitude is clearly derived from Taylor (see Chapter 4) with his emphasis on breaking down the job into component parts, selecting and training people to do them, and exerting constant pressure to achieve output. Supervisors see themselves as getting the job done with the resources (which includes the people) at their disposal.

Supervisors with the best record of performance are found to focus their attention on the human aspects of their subordinates' problems and on building effective work groups which are set high achievement goals. These supervisors are 'employee-centred'. They regard their jobs as dealing with human beings rather than with the work; they attempt to know them as individuals. They see their function as helping them to do the job efficiently. They exercise general rather than detailed supervision and are more concerned with targets than methods. They allow maximum participation in decision making. If high performance is to be obtained, a supervisor must not only be employee-centred, but must also have high

performance goals and be capable of exercising the decision-making processes to achieve them.

In summarizing these findings, Likert distinguishes four systems of management:

- System 1 is the exploitive authoritative type where management uses fear and threats, communication is downward, superiors and subordinates are psychologically far apart, most decisions are taken at the top of the organization, and so on.
- System 2 is the benevolent authoritative type where management uses rewards, subordinates' attitudes are subservient to superiors, information flowing upward is restricted to what the boss wants to hear, policy decisions are taken at the top though decisions within a prescribed framework may be delegated to lower levels, and so on.
- System 3 is the consultative type where management uses rewards; occasional punishments and some involvement is sought; communication is both down and up, but upward communication other than that which the boss wants to hear is given in limited amounts and only cautiously. In this system subordinates can have a moderate amount of influence on the activities of their departments since broad policy decisions are taken at the top and more specific decisions at lower levels.
- System 4 is characterized by participative group management. Management gives economic rewards and makes full use of group participation and involvement in setting high performance goals, improving work methods, and so on; communication flows downwards, upwards and with peers and is accurate; subordinates and superiors are very close psychologically. Decision making is undertaken throughout the organization largely through group processes; it is integrated into the formal structure by regarding the organization chart as a series of overlapping groups with each linked to the rest of the organization by means of persons (called 'linking pins') who are members of more than one group. System 4 management produces high productivity, greater involvement of individuals and better labour–management relations.

In general, high-producing managers are those who have built the personnel in their units into effective groups, whose members have cooperative attitudes and a high level of job satisfaction through System 4 management. But there are exceptions. Technically competent, job-centred, tough management can achieve high productivity (particularly if backed up by tight systems of control techniques). But the members of units whose supervisors use these high-pressure methods are likely to have unfavourable attitudes towards their work and the management, and to have excessively high levels of waste and scrap. They also show higher labour turnover and greater labour–management conflict as measured by work-stoppages, official grievances and the like.

Management, according to Likert, is always a relative process. To be effective and to communicate, leaders must always adapt their behaviour to take account of the persons whom they lead. There are no specific rules which will work well in all situations, but only general principles which must be interpreted to take account of the expectations, values and skills of those with whom the manager interacts. Sensitivity to these values and expectations is a crucial leadership skill, and organizations must create the atmosphere and conditions which encourage all managers to deal with the people they encounter in a manner fitting to their values and their expectations.

To assist in this task, management now has available a number of measures of relevant factors which have been developed by social scientists. Methods are available to obtain objective measurements of such variables as:

- the degree of member loyalty to an organization;
- the extent to which the goals of groups and individuals facilitate the achievement of the organization's goals;
- the level of motivation among members;
- the degree of confidence and trust between different hierarchical levels and between different sub-units;
- the efficiency and adequacy of the communication process;
- the extent to which superiors are correctly informed of the expectations, reactions, obstacles, problems and failures of subordinates – together with the assistance they find useful and the assurance they wish they could get.

These measures and others enable an organization to know at any one time the state of the system of functioning human beings which underpins it (called the 'interaction-influence system'); whether it is improving or deteriorating and why, and what to do to bring about desired improvements. This objective information about the interaction-influence system enables problems of leadership and management to be depersonalized and the 'authority of facts' to come to the fore. In this way the 'law of the situation' (see Mary Parker Follett, Chapter 4) will determine which actions need to be taken. A much wider range of human behaviour can now be measured and made objective, whereas previously impressions and judgements had to suffice.

Douglas McGregor examines the assumptions about human behaviour which underlie managerial action. The traditional conception of administration (as exemplified by the writings of Fayol, Chapter 4) is based upon the direction and control by management of the enterprise and its individual members. It implies certain basic assumptions about human motivation, which McGregor characterizes as 'Theory X':

> The average human being has an inherent dislike of work and will avoid it if possible. Thus management needs to stress productivity, incentive schemes and 'a fair day's work' and to denounce 'restriction of output'. Because of this human characteristic of dislike of work, most people must be coerced, controlled, directed and threatened with punishment to get them to put forth adequate effort towards the achievement of

> organizational objectives. The average human being prefers to be directed, wishes to avoid responsibility, has relatively little ambition and wants security above all.

Theory X has persisted for a long time (although it is not usually stated as baldly as this). It has done so because it has undoubtedly provided an explanation for *some* human behaviour in organizations. There are, however, many readily observable facts and a growing body of research findings (such as those described by Likert) which cannot be explained on these assumptions. McGregor proposes an alternative 'Theory Y', with the underlying principle of 'integration' replacing direction and control. The assumptions about human motivation of Theory Y are:

1. The expenditure of physical and mental effort in work is as natural as play or rest. The ordinary person does not inherently dislike work: according to the conditions it may be a source either of satisfaction or punishment.
2. External control is not the only means for obtaining effort. People will exercise self-direction and self-control in the service of objectives to which they are committed.
3. The most significant reward that can be offered in order to obtain commitment is the satisfaction of the individual's self-actualizing needs (compare Argyris, see Chapter 7). This can be a direct product of effort directed towards organizational objectives.
4. The average human being learns, under proper conditions, not only to accept but to seek responsibility.
5. Many more people are able to contribute creatively to the solution of organizational problems than do so.
6. At present the potentialities of the average person are not being fully used.

McGregor develops an analysis of how the acceptance of Theory Y as the basis for running organizations would work out. He is particularly concerned with effects on performance appraisals, salaries and promotions, participation and staff–line relationships. On this last topic he makes the important point that there will be tension and conflict between staff and line as long as staff departments are used as a service to top management to *control* the line (which is required by Theory X). With Theory Y the role of the staff is regarded as that of providing professional help to *all levels* of management.

The essential concept which both Likert and McGregor are propounding is that, to be effective, modern organizations must regard themselves as interacting groups of people with 'supportive relationships' to each other. In the ideal, all members will feel that the organization's objectives are of personal significance to them. They will regard their jobs, which contribute to those objectives, as meaningful, indispensable and difficult. Therefore, in order to do their jobs effectively, they need and obtain the support of their superiors. Superiors in turn regard their prime function as giving such support to make their subordinates effective.

In later work Likert and Likert extend the System 1 to 4 classification by identifying the 'System 4 Total Model Organization' (System 4T). This designation

refers to organizations which have a number of characteristics in addition to those of System 4, including:

- high levels of performance goals held by the leader and transmitted to subordinates;
- high levels of knowledge and skill of the leader with regard to technical issues, administration and problem solving;
- the capacity of the leader to provide planning, resources, equipment, training and help to subordinates.

System 4T is also characterized by an optimum structure in terms of differentiation and linkages, as well as stable group-working relationships.

System 4T is currently the best method for dealing with conflict because of its approach in obtaining appropriate data related to group needs (thus removing person-to-person conflict) and engaging in group decision making in order to resolve differences in the best interests of the entire organization. If members of one or both of the two groups show an inability to use group decision-making techniques sufficiently well, then higher levels must provide further training in group processes. The interaction-influence system will develop a capacity for self-correction, since superiors recognize those groups which are not performing their linking-pin and problem-solving functions effectively and can arrange for coaching and training. Correction is possible because the failures are picked up not by after-the-fact data (for example falling production, rising costs, lower earnings), but through the interaction-influence system in the early stages before poor performance and conflict arise.

Likert's argument is that the nearer to System 4T the organization approaches, the more productivity and profits will improve and conflict be reduced. Likert also suggests a System 5 organization of the future in which the authority of hierarchy will disappear completely. The authority of individuals will derive only from their linking-pin roles and from the influence exerted by the overlapping groups of which they are members.

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Robert R. Blake and Jane S. Mouton

Robert Blake (1918–2004) and Jane Mouton (d. 1987) were Chairman and President respectively of Scientific Methods, Inc. (now Grid International Inc.), an organization which provides behavioural science consultancy services to industry. Both were psychologists, trained in American universities. Blake first designed and tested the 'Managerial Grid' during his subsequent employment in industry.

Blake and Mouton start from the assumption that a manager's job is to foster attitudes and behaviour which promote efficient performance, stimulate and use creativity, generate enthusiasm for experimentation and innovation, and learn from interaction with others. Such managerial competence can be taught and it can be learned. Their managerial grid provides a framework for understanding and applying effective management.

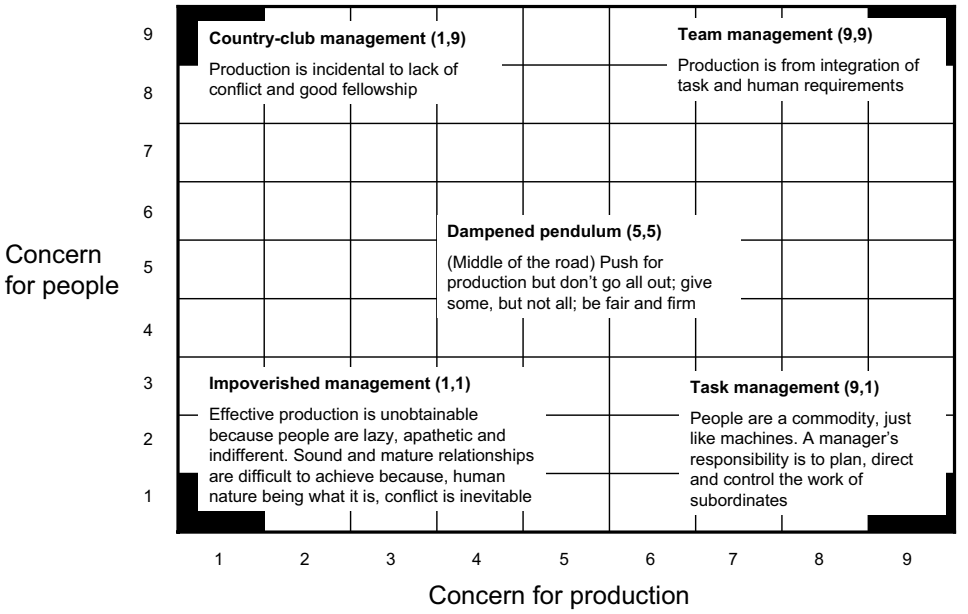
The grid sets the guidelines for an approach to management which has been widely applied. It has been successful in North America, in Europe and in Asia; in production work, sales and R & D; in trade unions, and in military, government and welfare organizations. Its relevance appears to transcend both cultural boundaries and forms of organization. Moreover, it has been applied from supervisory jobs to executive levels.

The managerial grid results from combining two fundamental ingredients of managerial behaviour. One is concern for production; the other is concern for people. 'Concern for' does not mean a dedication to specific targets, nor does it mean results achieved in themselves. It means the general approach to management which governs the actions of managers – just how they concern themselves with production and with people.

Concern for production does not mean only physical factory products. The term 'production' can refer to the number of good research ideas proposed, the number of accounts processed, the volume of sales achieved, the quality of service given or of top policy decisions made, and so on. Concern for people similarly includes a whole range of concerns for friendships, for personal commitment to tasks, for someone's self-respect, for equitable payment and so on.

Any manager's approach to management will show more or less of each of these two fundamental constituents. A manager may show a high degree of production concern together with low people concern, or the other way around, or may be middling on both. Indeed all of these are common; it is also commonplace that none of these is satisfactory. Placing the two fundamentals as the axes of a graph enables

a grid to be drawn which reveals very simply not only many typical combinations seen in the behaviour of managers every day but also the desirable combination of 'concern for', as shown in the figure.



The Managerial Grid
Source: Blake and Mouton, 'The Managerial Grid', *Advanced Management Office Executive,* 1962, vol. 1:9.

Different positions on the grid represent different typical patterns of behaviour. The grid suggests that change could be towards both high concern for production (scores 9) and high concern for people (also scores 9) simultaneously; that is, to a 9,9 managerial style of 'team management'.

The grid indicates that all degrees of concern for production and concern for people are possible, but for simplicity five styles of management are picked out for illustration.

The 9,1 management style, or 'task management', focuses overwhelmingly on production. A 9,1 manager is an exacting taskmaster who expects schedules to be met and people to do what they are told, no more and no less. Anything that goes wrong will be viewed as the result of someone's mistake, and that someone must be found and that blame squarely placed. Supervisors make decisions. Subordinates carry them out. The manager should run the show, and disagreement is likely to be viewed as the next thing to insubordination. The 9,1 management style can achieve high production, at least in the short run, but it has a number of deficiencies. Any

creative energies of subordinates go into how to defeat the system rather than how to improve it. Disagreements are ruled out and suppressed rather than settled. Subordinates do what is required, but no more, and seem obviously indifferent and apathetic. Win–lose thinking is eventually reflected in the development of trade unions and struggles between unions and managements. The 9,l management style is prevalent in a competitive industrial society such as the US because inadequate education leaves many people unable to use more than limited skills and compelled to endure this kind of supervision.

The 1,9 managerial style, or 'country-club management' as it has been called, emphasizes exclusively concern for people. It does not push people for production, because 'you can lead a horse to water, but you can't make it drink'. People are encouraged and supported, and their mistakes are overlooked because they are doing the best they can. The key word is togetherness and informal conversation, coffee together, with a joke helping things along. The informal rule is 'no work discussions during breaks'. But country club management also has deficiencies. People try to avoid direct disagreements or criticisms of one another and production problems are glossed over. No one should be upset even if work is not going quite as it should. New ideas which might cause trouble or objectives which would cause strain are allowed to slide. The 1,9 style easily grows up in quasi-monopoly situations or when operating on a cost-plus basis; its ultimate end may be the complete closing of a non-competitive unit.

Little concern for either production or people results from 'impoverished management', the 1,1 style. It is difficult to imagine a whole organization surviving for long with this kind of management, but it is frequent enough in individual managers and supervisors. The 1,l management style is characterized by the avoidance of responsibility or personal commitment, and by leaving people to work as they think fit. These leaders do just enough so that if anything goes wrong they can say 'I told them what to do – it's not my fault'. They minimize contacts with everyone, and are non-committal on any problems which come to them. The 1,l approach typically reveals the frustrations of someone who has been passed over for promotion, shunted sideways, or has been in a routine job for years (as Argyris, Chapter 7, also suggests).

Managers frequently alternate between the 1,9 country-club style and the 9,l task management style. They tighten up to increase output, 9,l style, but when human relationships begin to suffer, the pendulum swings right across to 1,9 again. The middle of the managerial grid shows the 5,5 'dampened pendulum' style, typified by marginal shifts around the happy medium. This middle-of-the-road style pushes enough to get acceptable production, but yields enough to maintain acceptable morale. To aim fully for both is too idealistic. Such managers aim at a moderate carrot-and-stick standard, fair but firm, and have confidence in their subordinates' ability to meet targets. The 5,5 management style thus gives rise to 'splitting the difference' on problems, to attempting balanced solutions rather than appropriate ones.

Unlike 5,5 management and all the other styles, 9,9 team management style shows high concern for production and for people, and does not accept that these

concerns are incompatible. The team manager seeks to integrate people around production. Morale is task related. Unlike 5,5 the 9,9 style tries to discover the best and most effective solutions, and aims at the highest attainable production to which all involved contribute and find their own sense of accomplishment. People satisfy their own needs through the job and working with others, not through incidental sociability in the country-club style. The 9,9 manager assumes that employees who know what the stakes are for them and others in what they are doing will not need boss direction and control (as Likert, previously in this chapter). The manager's responsibility is to see to it that work is planned and organized by those with a stake in it, not necessarily to do that task personally. Objectives should be clear to all and, though demanding, should be realistic. It is accepted that conflict will occur, but problems are confronted directly and openly and not as personal disputes. This encourages creativity. Sustained improvement of the form of organization and the development of those in it are both aims and likely outcomes of a 9,9 style.

Blake and Mouton reject most strongly a contingency approach to leadership and decision making (see Fiedler, later in this chapter, and Vroom, Chapter 5). Contingency theorists argue that particular leadership styles are appropriate to particular situations. This is to say that there are certain circumstances where a 9,1 or a 1,9 style would be the most effective. Blake and Mouton dispute this very static approach, for it does not appear to consider, for example, the adverse longer-term effects which a 9,l style might have on the leader's health and career or on the development of subordinates.

The 9,9 leadership style is always the best since it builds on long-term development and trust. A leader whose subordinates expect or want 9,l or 1,9 leadership should train them to understand and respond to 9,9. In this way their own development will be improved.

The 9,9 approach should be adopted with versatility, but its principles should be firmly retained.

In *Executive Achievement*, Blake and Mouton present eight case studies of top executives, using the Grid framework to analyse the limitations in leadership shown. Many of the habits which limit top management effectiveness have come about over the years in an unsystematic, even unthinking way. Leaders can be encouraged to think more about how to behave effectively and to gain personal insights into ways of changing. They are then better prepared to change towards 9,9 leadership because the bottom-line pay-off is so considerable.

For maximum effectiveness the whole culture of the organization must be changed to a 9,9 orientation, using a phased programme of organizational development. In Phase 1 the Managerial Grid is studied as a framework for understanding organizational behaviour through off-site training. Phase 2 focuses on the on-site training in problem solving methods of actual functioning teams as a whole. The same kind of application is made in Phase 3 but this time to inter-group work between units of the company where cooperation and coordination are necessary. Phase 4 is concerned with setting group goals for the optimum performance of the total organization. In Phase 5 the resulting changes are implemented, and Phase 6 measures these changes in order to consolidate them and set new goals for the

future. Where evaluation of this programme has been carried out, the evidence points both to more successful organizations and to greater career accomplishments by individual managers.

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Edgar H. Schein

Edgar H. Schein has been for many years Professor of Management at the Sloan School of Management of the Massachusetts Institute of Technology, where he is now professor emeritus. A social psychologist by training, in his early years at MIT he was a junior colleague of Douglas McGregor (see previously in this chapter) whose personality and work had much influence on him. Working in that tradition, Schein has been an influential researcher, consultant and writer on issues concerned with organizational behaviour, particularly individual motivation, career dynamics and organizational culture.

Schein's analysis of motivation begins, like McGregor's, with an examination of the underlying assumptions that managers make about the people they manage. He suggests three sets of assumptions, roughly in order of their historical appearance, and adds a fourth which he considers more appropriate.

1. The *Rational-Economic Model* is the mental picture held by managers who consider workers to be primarily motivated by economic incentives as manipulated by the organization. The worker is essentially passive, lazy, unwilling to take responsibility and must therefore be controlled by the manager. This is the basis of Taylor's approach to management (see Chapter 4), which is expounded by McGregor (see earlier in this chapter) as Theory X. This approach led to the possibility of mass-production industry, but broke down when unions became powerful and jobs became more complex, requiring more of an employee than being just a pair of hands.
2. The *Social Model* developed from awareness of the worker's need for identity through relationships with others, particularly the working group. The group's norms and pressures have much more power over production than do formal incentive systems and management controls. The work of Mayo and the Hawthorne investigations (see earlier in this chapter) had an important impact in changing managerial ideas, as did the study of mining by Trist and his colleagues (see later in this chapter). The implications for managers are spelled out in Likert's work on the need for 'employee-centred' leadership and participative group management (see earlier in this chapter).
3. The *Self-Actualizing Model* is a further development which underlines the fact that organizations typically remove the meaning of any work that employees do. The inherent need of workers to exercise their understanding, capacities and skills in an adult way is thus frustrated, and alienation and dissatisfaction ensue. The analysis of the clinical psychologist, Abraham Maslow, has been

very influential here. He maintains that 'self-actualization' (the realization of one's distinctive psychological potential) is the highest form of human need, going beyond economic and social fulfilment. The implications of this approach are developed for managers in McGregor's Theory Y (see earlier in this chapter), Argyris's Model II (see Chapter 7) and Herzberg's Job Enrichment (see later in this chapter).

4. The *Complex Model*, developed by Schein, maintains that earlier theories are based on conceptions which are too simplified and generalized. Human needs fall into many categories and vary according to the person's stage of personal development and life situation. So motives will vary from one person to another, one situation to another, one time to another. Incentives can also vary in their impact: money for example, though usually satisfying basic economic needs, can also serve to satisfy self-actualization needs for some. What motivates millionaires to go on to make their second or fi◎h million? Employees are also capable of learning new motives through organizational experiences and can respond to different kinds of managerial strategies.

The most important implication for managers is that they need to be good diagnosticians. They should be flexible enough to vary their own behaviour in relation to the need to treat particular subordinates in particular situations in an appropriate way. They may need to use any one of the economic, social or self-actualizing models. They may use 'scientific management' in the design of some jobs, but allow complete group autonomy for workers to organize themselves in others. They would thus use a 'contingency approach' as exemplified by Lawrence and Lorsch (see Chapter 2), Vroom (see Chapter 5) and Fiedler (see later in this chapter), among others.

According to Schein the key factor which determines the motivation of individuals in organizations is the 'psychological contract'. This is the unwritten set of expectations operating at all times between every member of an organization and those who represent the organization to that member. It includes economic components (pay, working hours, job security and so on) but also more implicit concerns such as being treated with dignity, obtaining some degree of work autonomy, having opportunities to learn and develop. Some of the strongest feelings leading to strikes and employee turnover have to do with violations of these implicit components, even though the public negotiations are about pay and conditions of work.

The organization, too, has implicit expectations: that employees will be loyal, will keep trade secrets, will do their best on behalf of the organization, and so on Whether individuals will work with commitment and enthusiasm is the result of a matching between the two components. On the one side, their own expectations of what the organization will provide for them and what they should provide in return; on the other, the organization's expectations of what it will give and get. The degree to which these correspond will determine the individual's motivation. The degree of matching is liable to change and the psychological contract is therefore

continually being renegotiated, particularly during the progress of an individual's career.

The 'career development perspective' taken by Schein identifies the continual matching process between the individual and the organization as the key to understanding both human resource planning for the organization and career planning for the individual. This matching is particularly important at certain key transition points in a career, such as initial entry into the organization, moving from technical to managerial work, changing from being 'on the way up' to 'levelling off' and so on.

A crucial element in the matching process is the nature of the *career anchor* that the individual holds. This is the self-perceived set of talents, motives and attitudes, based on actual experiences, which is developed by each individual, particularly in the early years of an organizational career. It provides a growing area of confidence within the individual's attitudes which anchors the interpretation of career and life options. Typical career anchors found by Schein in a detailed longitudinal study of MIT management graduates include those of technical competence, managerial competence, security and autonomy Career anchors affect the way individuals see themselves, their jobs and their organizations to a considerable extent. For example, one graduate using a technical competence anchor was, in mid-career, still only concerned with technical tasks. He refused to become involved in aspects of sales or general management even though he was now a director and part owner of the firm in which he worked. Another graduate, using managerial competence as an anchor, le◎ one firm although his bosses were quite pleased with his performance. But he considered that he only actually worked two hours a day, and he was not satisfied with that.

The understanding of the dynamics of career development is important in enabling human resource planning and development to improve the matching processes between the needs of the individual and the organization so that early-, mid- and late-career crises can be dealt with more effectively.

A distinctive aspect of the way that an organization functions – which shapes its overall performance as well as the feeling which individuals have about it – is its *culture*. This is the pattern of basic assumptions developed by an organization as it learns to cope with problems of external adaptation and internal integration. These assumptions are taught to new members as the correct way to perceive, think and feel in order to be successful. They cover a wide range of issues: how to dress, how much to argue, how far to defer to the boss's authority, what to reward, what to punish, and so on. Organizations develop very wide differences on these topics.

Leaders play a key role in maintaining and transmitting the culture. They do this by a number of powerful mechanisms including what they pay attention to, measure and control; how they react to a range of crises; who they recruit, promote and excommunicate. All these send important messages about the kind of organization they are running. The key to leadership is managing cultural change.

The considerable difficulties that almost inevitably beset the establishment of an effective organization a◎er a merger of two companies underline the need to understand the nature of cultural differences and how cultural change can be

consciously managed. The big danger is that the acquiring company will impose not only its own structures and procedures, but also its own philosophy, value systems and managerial style on a situation for which it has no intuitive feel. Thus a large packaged-foods manufacturer purchased a chain of successful fast-food restaurants. They imposed many of their manufacturing control procedures on the new subsidiary, which drove costs up and restaurant managers out. These were replaced by parent-company managers who did not really understand the technology and hence were unable to make effective use of the marketing techniques. Despite ten years of effort they could not run the subsidiary profitably and had to sell it at a considerable loss.

Similar problems occur when organizations diversify into new product lines, new areas or new markets. Afterwards managers frequently say that cultural incompatibilities were at the root of the troubles, but somehow these factors rarely get taken into account at the time. One reason is that the culture of an organization is so pervasive that it is very difficult for members to identify its components in their immediate situation. They recognize their own characteristics only when they run up against problems due to differences in others. Schein presents a series of diagnostic procedures to enable managers (usually with the help of an outside consultant) to make explicit the cultural assumptions of their own organization and thus gain insight into their compatibility with those existing elsewhere.

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Frederick Herzberg

Frederick Herzberg (1923–2000) was Distinguished Professor of Management in the University of Utah. A◎er training as a psychologist he studied Industrial Mental Health. For many years he has, with colleagues and students, been conducting a programme of research and application on human motivation in the work situation and its effects on the individual's job satisfaction and mental health. He questions whether current methods of organizing work in business and industry are appropriate for people's total needs and happiness.

Herzberg and his colleagues conducted a survey of 200 engineers and accountants representing a cross-section of Pittsburgh industry. They were asked to remember times when they felt exceptionally good about their jobs. The investigators probed for the reasons why they felt as they did, asking for a description of the sequence of events which gave that feeling. The questions were then repeated for sequences of events which made them feel exceptionally bad about their jobs. The responses were then classified by topic in order to determine what type of events led to job satisfaction and job dissatisfaction.

The major finding of the study was that the events that led to satisfaction were of quite a different kind from those that led to dissatisfaction. Five factors stood out as strong determinants of job satisfaction: achievement, recognition, the attraction of the work itself, responsibility and advancement. Lack of these five factors, though, was mentioned very infrequently in regard to job dissatisfaction. When the reasons for the dissatisfaction were analysed they were found to be concerned with a different range of factors: company policy and administration, supervision, salary, interpersonal relations and working conditions. Since such distinctly separate factors were found to be associated with job satisfaction and job dissatisfaction, Herzberg concludes that these two feelings are not the opposites to one another, rather they are concerned with two different ranges of human needs.

The set of factors associated with job dissatisfaction are those stemming from the individual's overriding need to avoid physical and social deprivation. Using a biblical analogy, Herzberg relates these to the 'Adam' conception of the nature of humanity. When Adam was expelled from the Garden of Eden he was immediately faced with the task of satisfying the needs which stem from his animal nature: the needs for food, warmth, avoidance of pain, safety, security, belongingness and so on Ever since then people have had to concern themselves with the satisfaction of these needs together with those which, as a result of social conditioning, have been added to them. Thus, for example, we have learned that in certain economies the

satisfaction of these needs makes it necessary to earn money which has therefore become a specific motivating drive.

In contrast, the factors associated with job satisfaction are those stemming from people's need to realize their human potential for perfection. In biblical terms this is the 'Abraham' conception of human nature. Abraham was created in the image of God. He was capable of great accomplishments, of development, of growth, of transcending his environmental limitations, of self-realization. People have these aspects to their natures too; they are indeed the characteristically human ones. They have needs to understand, to achieve, and through achievement to experience psychological growth, and these needs are very powerful motivating drives.

Both the Adam and Abraham natures look for satisfaction in work, but they do so in different ranges of factors. The Adam nature seeks the avoidance of dissatisfaction and is basically concerned with the job environment. It requires effective company policies, working conditions, security, pay and so on and is affected by inadequacies in these. Since they are extrinsic to the job itself, Herzberg refers to them as 'job hygiene' or 'maintenance' factors. Just as lack of hygiene will cause disease but the presence of hygienic conditions will not, of itself, produce health, so lack of adequate 'job hygiene' factors will cause dissatisfaction, but their presence will not of itself cause satisfaction. Satisfaction in work is provided through the Abraham nature which is concerned with the job content of the work itself, with achievement, recognition, responsibility, advancement and so on These are the motivator or growth factors and their presence will cause satisfaction. Their absence will not cause dissatisfaction (if the job hygiene factors are adequate) but will lead to an absence of positive satisfactions. It is thus basic to Herzberg's approach that job satisfaction and job dissatisfaction are not opposites, since they are concerned with different factors in work serving different aspects of human nature. The opposite of job satisfaction, therefore, is not job dissatisfaction but simply no job satisfaction. The opposite of job dissatisfaction, similarly, is lack of job dissatisfaction.

This finding of the original study – that the factors associated with job satisfaction were basically different in kind from those associated with job dissatisfaction – has been repeated in several subsequent studies. Collating the information based on 12 different investigations, involving over 1600 employees in a variety of jobs in business and other organizations and in a number of countries, Herzberg presents results to show that the overwhelming majority of the factors contributing to job satisfaction (81 per cent) were the motivators concerned with growth and development. A large majority of the factors contributing to job dissatisfaction (69 per cent) involved hygiene or environmental maintenance.

How, then, may this 'motivation–hygiene' approach be used to increase the motivation and job satisfaction of employees? First, it is clear that this cannot be done through the job hygiene factors. Certainly, these can and should be improved as they will reduce job dissatisfaction, but adequate company policies, working conditions, pay and supervision are increasingly thought of as a right to be expected, not as an incentive to greater achievement and satisfaction. For this, the rewarding nature of the work itself, recognition, responsibility, opportunities for achievement

and advancement are necessary. Herzberg recognizes that these are phrases that may be used nowadays in relation to jobs, but they are often used in a superficial way or as inspirational talk without much effective action. He therefore advocates an industrial engineering approach, based on the design of jobs, but from the opposite point of view from that of Taylor (see Chapter 4). Instead of rationalizing and simplifying the work to increase efficiency, the motivation–hygiene theory suggests that jobs be enriched to include the motivating factors in order to bring about an effective utilization of people and to increase job satisfaction.

The principles of *job enrichment* require that the job be developed to include new aspects which provide the opportunity for the employee's psychological growth. It is important that the new aspects are capable of allowing this. Merely to add one undemanding job to another (as is often the case with job enlargement) or to switch from one undemanding job to another (as in job rotation) is not adequate. These are merely horizontal job loading. In contrast, job enrichment calls for vertical job loading, where opportunities for achievement, responsibility, recognition, growth and learning are designed into the job. The approach would be to look for ways of removing some controls while retaining or increasing individuals' accountability for their own work; giving a person a complete natural unit of work; granting additional authority to an employee in the job; increasing job freedom; making reports directly available to the worker personally rather than to the supervisor; introducing new and more difficult tasks not previously undertaken, and so on.

A number of experiments have been reported by Herzberg and his colleagues where these changes have been introduced with considerable effect. For example, in a study of the job of 'stockholder correspondent' of a large corporation the following suggestions were considered but rejected as involving merely horizontal job loading: firm fixed quotas could be set for letters to be answered each day; the employees could type the letters themselves as well as composing them; all difficult inquiries could be channelled to a few workers so that the rest could achieve high rates of output; the workers could be rotated through units handling different inquiries and then sent back to their own units. Instead, changes leading to the enrichment of jobs were introduced: correspondents were made directly responsible for the quality and accuracy of letters which were sent out directly over their names (previously a verifier had checked all letters, the supervisor had rechecked and signed them and was responsible for their quality and accuracy); subject-matter experts were appointed within each unit for other members to consult (previously the supervisor had dealt with all difficult and specialized questions); verification of experienced workers' letters was dropped from 100 per cent to 10 per cent; and correspondents were encouraged to answer letters in a more personalized way instead of relying upon standard forms. In these ways, the jobs were enriched, with resulting increases in both performance and job satisfaction.

In other studies, laboratory technicians ('experimental officers') were encouraged to write personal project reports in addition to those of the supervising scientists and were authorized to requisition materials and equipment direct; sales representatives were made wholly responsible for determining the calling frequencies on their customers and were given a discretionary range of about 10 per cent on the prices

of most products; factory supervisors were authorized to modify schedules, to hire labour against agreed manning targets, to appoint their deputies, and so on. In each case, the results in both performance and satisfaction were considerable.

The more subordinates' jobs became enriched, the more superfluous does on-the-job supervision in the old sense become. But this does not downgrade the supervisors' job: in the companies studied they found themselves free to develop more important aspects of their jobs with a greater managerial component than they had had time to before. It soon becomes clear that supervising people who have authority of their own is a more demanding, rewarding and enjoyable task than checking on every move of circumscribed automatons. For management the challenge is task organization to call out the motivators, and task support to provide adequate hygiene through company policy, technical supervision, working conditions and so on, thus satisfying both the Adam and the Abraham natures of humanity in work.

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Fred E. Fiedler

Fred Fiedler is Professor Emeritus of Psychology and Management at the University of Washington. For over four decades he has been concerned with a research and consulting programme into the nature of effective leadership which has been carried out in a large range of organizations including business concerns, governmental agencies (both civil and military) and voluntary organizations.

Fiedler's studies of leadership have concentrated on workgroups rather than the organization of which the group is a part. He assumes that those who are appointed leaders will have the requisite technical qualifications for the job (for example the Director of Product Development in a manufacturing firm will be an engineer; only qualified social workers will become Heads of Social Work Departments). He therefore asks what is it about leadership behaviour per se which leads to effective group working. Effectiveness is defined, in a very hardnosed way as how well the group performs the primary task for which it exists – for example, output levels for managers of manufacturing departments, students' standardized achievement-test grades for school principals.

Focusing on the behaviour of the leader, Fiedler identifies two main leadership styles. *Relationship-motivated leaders* get their major satisfaction from good personal relationships with others. Their self-esteem depends very much on how others regard them, and they are sensitive to, and very concerned about, what their group members feel. They encourage subordinates to participate and to offer ideas.

Task-motivated leaders, on the other hand, are strongly concerned to complete successfully any task they have undertaken. They run a 'tight ship' with clear orders and standardized procedures for subordinates and in their turn feel most comfortable working from their superiors' clear guidelines and operating procedures. If these are missing they will try to create them.

Fiedler has developed a very distinctive measure to classify these two styles or motivation patterns. His questionnaire measure asks leaders to review all the people with whom they have ever worked and identify the one with whom they could work least well. They are then asked to rate this 'least preferred co-worker' (LPC) on a number of characteristics.

Relationship-motivated leaders are those who will score these characteristics highly in spite of difficulties experienced with their LPC. Thus they may rate their choice as untrustworthy and inconsiderate, but will admit that the LPC was cheerful, warm and relaxed. Since relationships are important to them, this type of leader will make such detailed discriminations and attempt to treat their choice fairly.

Task-motivated leaders rate people in terms of their ability to contribute to the successful achievement of the group's task: on this they will rate their LPC very low indeed – and it will be a blanket negative evaluation. Thus the LPC would not only be unpleasant and disloyal, but also tense, boring, insincere and quarrelsome as well!

In all his work Fiedler emphasizes very strongly that *both* these leadership styles can be effective in appropriate situations. Thus he takes a contingency approach to leadership and rejects the conception that there is a best style that is appropriate for all situations (cf. Likert and McGregor, and Blake and Mouton, earlier in this chapter). Effective leadership will be contingent on the nature of the tasks which leaders face and the situations in which they operate.

The underlying concept which is used to characterize the situation of the leader is that of 'favourableness' in terms of the ability to exercise power and influence. The more power the leader has, the greater the influence and control; the less dependence on the goodwill of others, then the easier the leadership task will be. Three dimensions are used to analyse any leadership situation.

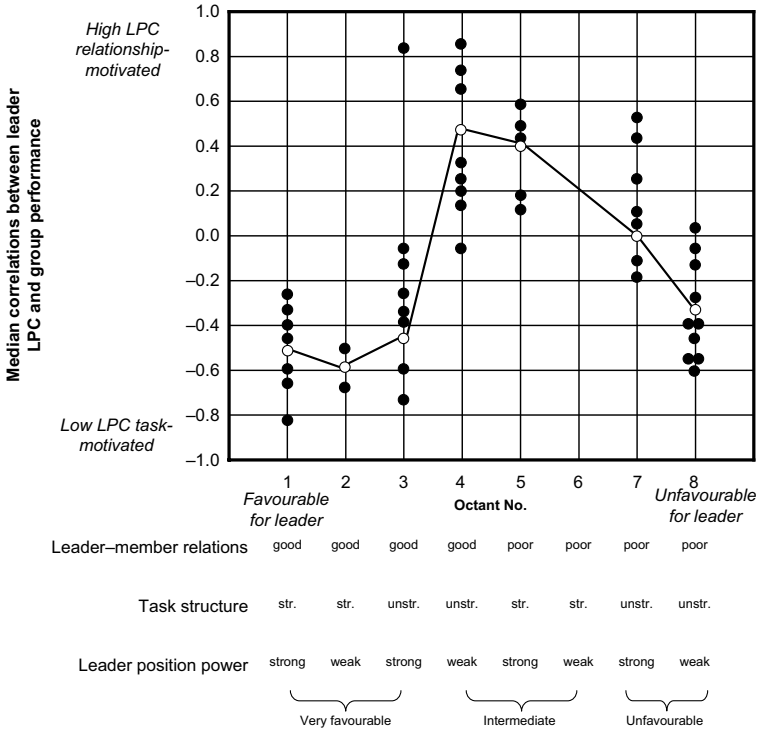
1. *Leader–member relations*: Leaders who have good relationships with their group members, who are liked and respected, will have more influence than those with poor relationships. Fiedler claims that this is the most important single dimension.
2. *Task structure*: Tasks or assignments which are spelled out with specific guidelines, or even programmed, give the leader more influence than tasks which are vague, nebulous and unstructured.
3. *Leader's position power*: Leaders who are able to reward and punish subordinates (through disciplining, setting pay, hiring and firing, and so on) have more power and are thus in a more controlling and favourable position than those who cannot.

Ordering leadership situations as being either high or low in relation to each of these three dimensions generates an eight-cell classification which is listed along the horizontal axis of the figure shown on page 240. This is the scale of favourableness for the leader.

An example of a leader in Octant l, the most favourable situation, might be a construction superintendent building a bridge from a set of blueprints, who has personally hired the work crews and has their full support. The *technical* task may be difficult but, because it is structured and spelled out and the leader has good personal relations and strong power, the *leadership* task is the easiest and the leader has a great deal of control.

In contrast, an example of an Octant 8 situation might be that of a parent who has taken on the task of chairing a committee of the parent–teachers association to organize an outing 'so that everybody can have a good time'. Here the *technical* task is much easier than building a bridge, but the *leadership* task is much more difficult since it is very unstructured (how do you determine whether everybody has had a good time?), the parent has weak position power (not being able to order

the committee to carry out instructions) and many may resent the appointment anyway (poor leader–member relations).



Source: Fiedler (1967).

In between these two extreme examples fall many leadership situations (classified as Octants 2 to 7) where some aspects of the situation are favourable to the leader but others are not.

The critical question to ask then becomes what kind of leadership (relationship-motivated or task-motivated) does each of these octants call for? The figure presents the results of Fiedler's wide-ranging studies, based on many hundreds of workgroups and covering the whole range of octants. The groups included bomber and tank crews, boards of directors, basketball teams and creative problem-solving groups. For each of the octants (shown on the horizontal axis) the vertical axis indicates the relationship between the leader's style and group performance. A median correlation above the mid-line shows that relationship-motivated leaders (that is, those with high LPC scores) tended to perform better than task-motivated leaders (that is, those with low LPC scores). A correlation below the mid-line indicates that task motivated leaders performed better than relationship-motivated leaders.

The findings presented in the figure (and which have been replicated by many further studies) demonstrate two important facts about effective leadership:

1. Task-motivated leaders tend to perform better in situations that are very favourable (Octants 1, 2, 3) and in those that are very unfavourable (Octants 7, 8) that is, where the correlations fall below the mid-line on the vertical axis. Relationship-motivated leaders tend to perform better in situations that are intermediate in favourableness. It is clear that both types of leadership styles perform well under some conditions and poorly under others. We cannot therefore speak of poor leaders or good leaders without examining the situation in which the leader functions.
2. The performance of the leader depends as much on situational favourableness as it does on the style of the person in the leadership position. The crucial factor is that the style of the leader and the work group situation should be matched. This leader match and its appropriate benefits can be obtained either by trying to change the leader's style or by trying to change the leadership situation.

Fiedler has consistently maintained that the first of the change options to achieve leader match (changing the leader's style) is unrealistic and that leadership training which attempts to do this (for example to increase openness or employee-centredness) has not been effective because the leadership-style motivational pattern is too ingrained a characteristic of the individual (see Vroom, Chapter 5, for an opposing view). From Fiedler's point of view, what appropriate training does – together with experience – is to give the leader more technical knowledge and administrative know-how. This allows more influence and control and thus the situation becomes more favourable. But the contingency approach indicates that in many of the octants a more favourable situation (for example moving from Octant 8 to Octant 4 by improving leader–member relations) requires a different leadership style. Hence while training and experience will improve the performance of one type of leader – where the new octant situation will now be matched to the style – it will *decrease* the performance of the other style type which has now lost its matching. Training must therefore be undertaken with a knowledge of leadership style in relation to leaders' situations, otherwise on average it is bound to have no effect.

Changing the situations in which leaders operate to those which call for their particular styles is a more appropriate way of achieving the leader match. Thus we might increase the favourableness of a task-motivated leader's situation to one which made a better match by giving more explicit instructions to work to and more authority to achieve the tasks (Octant 4 to Octant 1). *Decreasing* the favourableness of the situation in order to improve the leader's performance by a better match is not as unusual as might first appear. Managers are frequently transferred to more challenging jobs because they have become bored or stale. 'Challenging' could well mean that there are awkward people to work with and that authority is much

diminished. But the move of a relationship-motivated leader from Octant 1 to Octant 6 would improve the match and the leader's subsequent performance.

In later work, the importance of a leader's cognitive ability is explored as an additional factor in determining the group's effectiveness. The task-motivated style works when linked to high leader intelligence and a supportive environment. To be successful, leaders, who are less intelligent in relation to their groups have to be relationship-motivated in order to draw on the resources of their followers. These are key considerations in determining where a leader should be placed. In general, successful organizations are those which give all leaders a full evaluation of their own characteristics and their group's performance, and which make them aware of the situations in which they perform best. Good leaders will create situations in which their cognitive capacity and leadership style are most likely to succeed.

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Eric Trist and the Work of the Tavistock Institute

Eric Trist (1909–1993) was a social psychologist who, for more than 20 years, was the senior member of the Tavistock Institute of Human Relations, London, a leading centre for the application of social science to social and industrial problems. He subsequently was a Professor at the University of Pennsylvania and at York University, Ontario. At the Tavistock, he conducted, with a number of colleagues (including F. E. Emery, A. K. Rice and E. J. Miller), a programme of combined research and consultancy investigations into group and organizational functioning. This combination of research and consultancy is referred to as 'action research'. The work of Trist and his colleagues uses a systems approach to understanding organizational behaviour.

In collaboration with K. W. Bamforth (an ex-miner), Trist studied the effects of mechanization in British coal mining. With the advent of coal-cutters and mechanical conveyors, the degree of technical complexity of retrieving coal was raised to a higher level. Mechanization made possible the working of a single long face in place of a series of short faces; however, this technological change had a number of social and psychological consequences for the work organization and the worker's place in it to which little thought was given before the change was introduced. The pattern of organization in short-face working was based on a small artisan group of a skilled man and his mate, assisted by one or more labourers. The basic pattern around which the work relationships in the longwall method were organized was a coalface group of 40 to 50 men, their shot-firer and 'deputies' (that is, supervisors). Thus in size and structure the basic unit in mining took on the characteristics of a small factory department, and in doing so disrupted both the traditional high degree of job autonomy and close work relationships, with a number of deleterious effects.

The mass production character of the longwall method necessitates a large-scale mobile layout advancing along the seam, basic task specialization according to shi◎, and very specific job roles with different methods of payment within each shi◎. In these circumstances there are considerable problems of maintaining effective communications and good working relations between 40 men spatially spread over 200 yards in a tunnel, and temporally spread over 24 hours in three successive shi◎s. From the production engineering point of view it is possible to write an equation that 200 tons equals 40 men over 200 yards over 24 hours, but the psychological and social problems raised are of a new order when the work

organization transcends the limits of the traditional, small face-to-face group undertaking the complete task itself. The social integration of the previous small groups having been disrupted by the new technology and little attempt having been made to achieve any new integration, many symptoms of social stress occur. Informal cliques which develop to help each other out can only occur over small parts of the face, inevitably leaving some isolated; individuals react defensively, using petty deceptions with regard to timekeeping and reporting of work; they compete for allocation to the best workplaces; there is mutual scapegoating across shi◎s, each blaming the other for inadequacies (since, in the new system with its decreased autonomy, no one individual can normally be pinpointed to be at fault, scapegoating of the absent shi◎ becomes self-perpetuating and resolves nothing). Absenteeism becomes a way of the miner compensating himself for the difficulties of the job.

This study of the effects of technological change led Trist to develop the concept of the working group as being neither a technical system nor a social system, but as an interdependent socio-technical system. The technological demands place limits on the type of work organization possible, but the work organization has social and psychological properties of its own that are independent of the technology. From this point of view it makes as little sense to regard social relationships as being determined by the technology as it does to regard the manner in which a job is performed as being determined by the social-psychological characteristics of the workers. The social and technical requirements are mutually interactive and they must also have economic validity, which is a third interdependent aspect. The attainment of optimum conditions for any one of these aspects does not necessarily result in optimum conditions for the system as a whole, since interference will occur if the others are inadequate. The aim should be joint optimization.

In further studies of mining, Trist found that it was possible, within the same technological and economic constraints, to operate different systems of work organization with different social and psychological effects, thus underlining the considerable degree of organizational choice which is available to management to enable it to take account of social and psychological aspects. A third form of operation, known as the 'composite longwall method', was developed which enabled mining to benefit from the new technology while at the same time allowing some of the characteristics of the shortwall method to be retained. In the composite system, groups of men are responsible for the whole task, allocate themselves to shi◎s and to jobs within the shi◎, and are paid on a group bonus. Thus the problems of overspecialized work roles and segregation of tasks across shi◎s, with consequent scapegoating and lack of group cohesion, were overcome. For example, it became common for a sub-group that had finished its scheduled work for a shi◎ before time, to carry on with the next activity in the sequence in order to help those men on the subsequent shi◎ who were members of their group. The composite longwall method was quite comparable in technological terms with the conventional longwall method, but it led to greater productivity, lower cost, considerably less absenteeism and accidents, and greater work satisfaction, since it

was a socio-technical system better geared to the workers' social and psychological needs for job autonomy and close working relationships.

This socio-technical system approach was also applied to supervisory roles by Rice in studies of an Indian textile firm. He found that it was not enough to allocate to the supervisor a list of responsibilities (see Fayol, Chapter 4) and perhaps insist upon a particular style of handling workers (see Likert, earlier in this chapter). The supervisor's problems arise from a need to control and coordinate a system of worker–task relationships, and in particular to manage the 'boundary conditions', that is, those activities of one system which relate it to the larger system of which it forms a part. To do this effectively, there must be an easily identifiable arrangement of tasks so that the autonomous responsibility of the group for its own internal control can be maximized, thus freeing the supervisor for the key role of boundary management.

In an automatic weaving shed, for example, in which the occupational roles had remained unchanged since hand weaving, the activities of the shed were broken down into component tasks, with the number of workers required determined by work studies. Those in different occupational tasks worked on different numbers of looms; weavers operated 24 or 32, battery fillers charged the batteries of 48, smash hands served 75, jobbers 112, the bobbin carrier 224, and so on This resulted in the shi◎ manager having to interact about the job regularly with all the remaining 28 workers on the shi◎, jobbers having to interact with 14, smash hands with 9, a weaver with 7, and so on, all on the basis of individual interactions aggregated together only at the level of the whole shi◎, with no stable internal group structure. Rice carried through a reorganization to create four groups of six workers with a group leader, each with an identifiable group task and a new set of interdependent work roles to carry it out. The boundaries of these groups were more easily delineated, and thus the work leader's task in their management facilitated. As a result there was a considerable and sustained improvement in efficiency and a decrease in damage.

These studies and others of the Tavistock Institute have led Emery and Trist to conceptualize the enterprise as an 'open socio-technical system'. 'Open' because it is concerned with obtaining inputs from its environment and exporting outputs to its environment, as well as operating the conversion process in between. They regard the organization not in terms of a closed physical system which can obtain a stable resolution of forces in static equilibrium, but in the light of the biological concept of an open system (due to von Bertalanffy) in which the equilibrium obtained by the organism or the organization is essentially dynamic, having a continual interchange across the boundaries with its environment. Indeed, they would regard the primary task of the management of an enterprise as a whole as one of relating the total system to its environment through the regulation of boundary interchanges, rather than that of internal regulation. A management which takes its environment as given and concentrates on organizing internally in the most efficient way is pursuing a dangerous course. This does not mean that top management should not be involved in internal problems, but that such involvement must be oriented to environmental opportunities and demands.

The problem is that environments are changing at an increasing rate and towards increasing complexity. Factors in the environment, over which the organization has no control or even no knowledge, may interact to cause significant changes. Emery and Trist have classified environments according to their degree of complexity from that of a placid, randomized environment (corresponding to the economist's perfect competition) to that of a 'turbulent field' in which significant variances arise, not only from the competitive organizations involved but also from the field (for example market) itself.

They present a case history of an organization which failed to appreciate that its environment was changing from a relatively placid to a relatively turbulent one. This company in the British food canning industry had, for a long period, held 65 per cent of the market for its main product – a tinned vegetable. On this basis the company invested in a new automatic factory, and in doing so incorporated an inbuilt rigidity – the necessity for long runs. But even while the factory was being built, several changes in the environment were taking place over which the organization had no control. The development of frozen foods and the increasing affluence which enabled more people to afford these presented consumers with an alternative. Greater direct competition came from the existence of surplus crops which American frozen food manufacturers sold off very cheaply due to their inappropriateness for freezing, their use by a number of small British fruit canning firms with surplus capacity due to the seasonal nature of imported fruit, and the development of supermarkets and chain stores with a wish to sell more goods under their house names. As the small canners provided an extremely cheap article (having no marketing costs and a cheaper raw material), they were able within three years to capture over 50 per cent of a shrinking market through supermarket own-label channels. This is a clear example of the way in which factors in the environment interact directly to produce a considerable turbulence in the field of the organization's operations which, in the case of the vegetable canning factory, required a large redefinition of the firm's purpose, market and product mix before a new dynamic equilibrium was reached.

Emery and Trist maintain that enterprises like the food canner tend to design their organization structures to fit simpler environments than the complex turbulent ones which they are actually facing. A new *design principle* is now required. Organizations by their very nature require what is known in systems theory and information theory as 'redundancy'. By this is meant duplication, replaceability, interchangeability, and resources needed to reduce error in the face of variability and change. The traditional technocratic bureaucracy is based on *redundancy of parts*. Segments are broken down so that the ultimate elements are as simple as possible; thus an unskilled worker in a narrow job who is cheap to replace and who takes little time to train would be regarded as an ideal job design. But this approach also requires reliable control systems – often cumbersome and costly.

An alternative design, based on the *redundancy of functions*, is appropriate to turbulent environments. In this approach individuals and units have wide repertoires of activities to cope with change and are self-regulating. For the individual they create roles rather than mere jobs; for the organization, they bring

into being a *variety-increasing system* rather than the traditional control by variety reduction. For this approach to be achieved there has to be a continuing development of appropriate new values concerned with improving the *quality of working life* by keeping the technological determinants of worker behaviour to a minimum in order to satisfy social and psychological needs by the involvement of all concerned. Autonomous working groups, collaboration rather than competition (between organizations as well as within them) and reduction of hierarchical emphasis are some of the requirements for operating effectively in modern turbulence. The table below sets out the key features of the old and new approaches.

The socio-technical systems approach to achieving effective functioning in a turbulent environment as well as to improving the quality of working life has also been undertaken at a wider 'macro-social' level. For example, working with the Norwegian social psychologists E. Thorsrud and P. G. Herbst, the Tavistock group has studied the Norwegian shipping industry.

Features of Old and New Approaches

Old approach	*New approach*
The technological imperative	Joint optimization
People as extensions of machines	People as complementary to machines
People as expendable spare parts	People as a resource to be developed
Maximum task breakdown, simple narrow skills	Optimum task grouping, multiple broad skills
External controls (supervisors, specialist staffs, procedures)	Internal controls (self-regulating sub-systems)
Tall organization chart, autocratic style	Flat organization chart, participative style
Competition, gamesmanship	Collaboration, collegiality
Organization's purposes only	Members' and society's purposes also
Alienation	Commitment
Low risk taking	Innovation

Source: Trist (1981).

Many technological designs are available for sophisticated bulk carriers. The one chosen was that which best met the social and psychological needs of the small shipboard community that had to live together in isolated conditions, 24 hours a day for considerable periods, while also efficiently achieving its work tasks. A common

mess and a recreation room were established; deck and engine-room crews were integrated, status differences between officers and men were reduced and even eliminated through the development of open career lines and the establishment of 'all officer' ships. Also training for future jobs onshore was initiated at sea.

Without these improvements in the quality of working life, too few Norwegians would have gone to sea to sustain the Norwegian Merchant marine which is critical for Norway's economy. Poorly educated and transient foreign crews could not cope with technically sophisticated ships, and alcoholism was dangerously high. These issues could not have been effectively tackled by any one single company; all firms in the industry, several seafaring unions and a number of maritime regulatory organizations all had to be involved in order to sustain the macro-social system development that was required.

The work of Trist and the Tavistock group has been most consistent in applying systems thinking over a large range of sites – the primary work system, the whole organization system and the macro-social domain. In doing so they have illuminated the dynamic nature of organizations and their functioning, the crucial importance of boundary management, and the need for a new approach to organizational design which can accommodate environmental change.

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Edward E. Lawler

Edward E. Lawler is Distinguished Professor of Business and Director of the Center for Effective Organizations at the University of Southern California. An organizational psychologist, he has been concerned with a range of programmes of research and action research into management effectiveness, quality of working life, and innovative approaches to designing and managing organizations. His continuing interest in the psychological analysis of the part that pay and reward systems play in organizational effectiveness and organizational change led, in 1972, to his receiving a Distinguished Scientific Award from the American Compensation Association.

Lawler's interest in appropriate systems for pay and reward stems from his view, based on a considerable amount of research both of his own and of others, that compensation has an important influence on those behaviours which lead to organizational effectiveness. In a survey of research studies, four methods used to improve productivity were compared. Incentive payments yielded the highest average increase (30 per cent); goal-setting, including management by objectives (see Drucker, Chapter 4) and job enrichment (see Herzberg, earlier in this chapter), each had under 20 per cent, and participation only one-half per cent. Thus, argues Lawler, for any change to be effective (including participation) it should be linked to appropriate changes in payment systems.

This is because pay is vitally important to individuals in the organization. It not only enables them to satisfy their material needs and gives a feeling of security, but also, very important for many people, pay is seen as a mark of the esteem in which they are held. In addition it provides opportunities to engage in activities which are autonomously directed and independent of the work organization.

Why then, in spite of its importance both to organizations as a determinant of effectiveness and to individuals as a source of satisfaction, is pay so often an organizational problem? Studies have shown that in many organizations 50 per cent or more of employees are dissatisfied with their pay. In a major US sample survey, the percentage of people who agreed that they received good pay and fringe benefits dropped from 48 per cent to 34 per cent between 1973 and 1977.

There are a number of conclusions available from research which can explain this situation. Satisfaction with pay is a function of how much is received compared with how much the individual feels should be received. Ideas of what should be received are based on two factors.

The first factor is an evaluation of what contribution the individual makes in terms of skill, experience, age, amount of responsibility and so on. Typically

individuals rate their personal contributions higher than other people rate them. (Surveys have shown that the average male employee rates his performance in the top 20 per cent of his grade!) They also consider that the contributions in which they are strong (for example, formal education, company loyalty) should be weighted most heavily, and those in which they are weak (for example seniority, difficulty of task) should be regarded as less important.

The second factor contributing to ideas of appropriate payment is a comparison of what other people in similar posts both within and outside the organization receive. Often there is a lack of correct information about the rewards of others, because this is an emotional issue and organizations keep secret the results of salary surveys, performance, appraisals and individual remuneration. On the whole, therefore, people tend to overestimate the pay of others doing similar work.

Not surprisingly, then, there is dissatisfaction with rewards which leads to reduced motivation, absenteeism, labour turnover and difficulties in recruitment. What can be done to attack these problems? Since dissatisfaction stems from relativities and comparisons, paying everybody more money will clearly not improve the situation. Lawler maintains that it is possible *within the same total wage bill* to redesign the payment and benefit system to obtain increased individual satisfaction and organizational effectiveness.

There are a number of major organizational characteristics which influence the nature of an appropriate compensation plan chosen for a particular enterprise:

1. ORGANIZATIONAL CLIMATE

Using the distinction made by Likert and McGregor (earlier in this chapter), it is clear that an organization with a participative climate (System 4, Theory Y) can use participative methods for disclosure of information, setting of objectives, generation of trust to allow changes and so on. In such an organization it might be agreed, for example, that an all-salary payment system is appropriate because sufficient trust and confidence in supervision exist that unfair advantage will not be taken by anyone through slacking, absenteeism and so on. An authoritarian climate on the other hand (System 1, Theory X) would do well to emphasize hard criteria, such as quantity of output and sales, since these can be monitored in detail and thus require a much lower level of trust and openness.

2. TECHNOLOGY

The distinctions by Woodward (Chapter 1) of unit, mass and process production will affect the payment system. Individual performance measures may be appropriate in unit and mass, but plant-wide measures are necessary for process industry. In non-industrial professional service organizations (for example hospitals, schools), attempts to tie rewards to measures of performance would likely result in increased bureaucratic behaviour. Joint goal setting would be more appropriate here.

3. SIZE AND ORGANIZATION STRUCTURE

The size of an organization will affect the possibilities; small enterprises can use company-wide indices of performance, thus emphasizing the common endeavour. For large organizations this is inevitably seen as irrelevant by an individual employee (unless right at the top). Decentralized organizations can link payment schemes to the performance of the sub-unit, but there must be real delegation of decision-making power to the sub-unit (for example factory) to affect its own performance, otherwise effort will be directed to defeating the control system, not to improving effectiveness.

The pay system must therefore fit the characteristics of an organization if it is to be effective. Appropriate merit pay plans for different types of organization are presented in the table on page 252.

The characteristics of the organization and the characteristics of the pay system must be matched in one of two ways: by choosing the correct system for present organizational characteristics or by changing the organization to fit the plan. Because pay is so important to individuals, is so tangible in its effects and has system-wide implications, simultaneously changing the pay system is crucial in ensuring that other changes are effective. For example, the continued administration of a traditional authoritarian pay system could well ensure that an avowed move to more participative management will be regarded as insincere and a management gimmick. Alternatively an appropriate new pay system can signal to all that a real change is taking place.

Many changes taking place in regard to work organizations have implications for new payment systems. For example, the workforce is becoming more heterogeneous, multi-cultural, with greater participation of women and of minority groups in more senior positions. People are becoming more educated and knowledgeable, less accepting of traditional authority and with an increasing desire for more influence at the workplace. The nature of organizations is changing (more service organizations and fewer manufacturing ones, large organizations are getting larger and more diversified, while numerous small businesses are coming into being) and so is the environment in which they operate. Slower economic growth and recession, together with all these other changes, will inevitably intensify people's concern with social equity and thus make it ever more imperative that payment systems should motivate performance and give individual satisfaction.

Lawler identifies a number of practices which are being introduced to deal with such changes. Of primary importance is the concept of *individualization of compensation systems*. Plans that use the same pay methods in all parts of the organization and give everybody the same benefits using the same basic rates for example, no longer fit both the diverse workforce and the diverse nature of organizations. More individual contracts with greater flexibility on working hours, pay–performance relationships, balance between salary and fringe benefits and so on are needed. This is already in place for managers at the top but will have to percolate further down the organizational levels to give people greater choice

Appropriate Merit Pay Plans for Various Types of Organizations

Authoritarian	Mass and unit	Large	Cent.	Individual basis; objective criteria
			Decent.	For workers – individual; for managers – group plan possible on profit centre basis; for all objective criteria
		Small	Cent.	Individual basis; objective criteria
			Decent.	For workers – individual; for managers – group plan possible on profit centre basis; for all objective criteria
	Process	Large	Cent.	None very appropriate; company-wide bonus possible for managers
			Decent.	Group plan based upon objective sub-unit performance criteria
		Small	Cent.	Organization-wide bonus plan
			Decent.	Group plan based upon objective sub-unit performance measures
	Professional service	Large	Cent.	None appropriate
			Decent.	None appropriate
		Small	Cent.	None appropriate
			Decent.	None appropriate
Democratic	Mass and unit	Large	Cent.	Individual plans based on objective criteria as well as soft criteria, such as participatively set goals
			Decent.	Same as centralized, but for managers use data from their sub-part of organization
		Small	Cent.	Some consideration to performance of total organization; individual plans based on objective criteria as well as soft criteria, such as participatively set goals
			Decent.	Same as centralized except sub-part performance can be used as criteria in both individual and group plans
	Process	Large	Cent.	Organization-wide plan based on objective and subjective criteria; individual appraisal based on soft criteria
			Decent.	Group plan based on plant performance, objective and subjective criteria
		Small	Cent.	Organization-wide plan based on company performance
			Decent.	Group plans based on sub-unit performance
	Professional service	Large	Cent.	Design individual plans; high input from employees; joint goal setting and evaluation
			Decent.	Same as centralized but some consideration to performance of sub-parts
		Small	Cent.	Some consideration to performance of total organization; design individual plans; high input from employees; joint goal setting and evaluation
			Decent.	Same as centralized, except that data for sub-part of organization may be relevant

Source: Lawler (1971).

in meeting their reward requirements. Such traditional practices as the blanket distinction between hourly and salaried employees will more and more come into question.

Some further trends, which do not sit easily together, may also be noted. Performance-based pay systems (where they are appropriate) are becoming more important in linking pay to performance in a motivating way. But they must be carried out in the light of modern feelings that decisions about pay should be arrived at by open and defensible processes, not by a secret personal top-down approach lacking any appeal procedure. Also, more egalitarian reward systems, which decrease the number of grade levels and set limits to the differences in rewards, go in harness with the desire of many for more open participative organizations, but may well relate less directly to performance. There are no automatic answers to these issues. 'As society changes, so must its organizations; as organizations change, so must their pay systems.'

In later work Lawler, with Christopher Worley, studied organizations that can contemplate and achieve continuous change, such as Procter & Gamble, Johnson & Johnson and Toyota. They are found to have certain characteristics, which include: tying pay to the performance of the business and therefore sharing financial information with all employees; encouraging many individuals to have contacts outside the organization, for example with customers: stressing the need to regularly change work assignments and not being afraid to eliminate jobs completely; and selecting employees who accept and seek change.

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