Organizational Behavior:

An Analytic (Socio-Technical) Frame of Reference

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Third Edition

ORGANIZATIONAL BEHAVIOR
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People both affect and are affected by their organizational environments. The relationships between individuals and organizations are far from being uncomplicated. This segment of the series presents a very comprehensive frame of reference for analyzing and understanding the influences on people's behavior in organizations. It demonstrates that many specific factors can be operating at any one time to influence organizational behavior.

An in-depth understanding of what is going on in an organization—and why—has several important advantages.

First, insight into the natures of people and their tasks enables the manager, supervisor, or leader to formulate a managerial or leadership style that maximizes his or her people's productivity, job satisfaction, and personal development.

Second, greater insight into one's own relationships to the organization enables him to recognize more ways of increasing his own productivity, satisfaction, and development.

Third, "people-type" organizational problems can be analyzed and solved more effectively when the individual can recognize and deal with more of the factors that cause the problems.

Fourth, a deeper insight into the natures of people and their social relationships enables effective implementation of more modern, more sophisticated managerial styles and practices.

General Overview

Just as an individual is a system of interrelated, interacting characteristics, so too is an organization. Organizational behavior is influenced by five main groups of factors or inputs: task or technological inputs; individuals' characteristics; organizational factors; social factors; and the environment outside the organization. All of these factors operate upon the organizational system together, each influencing and being influenced by the others.

As shown in **Figure 1**, the interrelationships among these factors result in actual behavior—activities, people's interactions, and attitudes. These constitute what is going on in the organization. The underlying factors themselves represent the causes—the why. Having identified what is going on and why, managers or leaders should ask themselves, "Are these activities, interactions, and attitudes functional (appropriate) or dysfunctional (inappropriate) for people's productivity, satisfaction, and development?"

In the following pages we will describe approximately one hundred factors that influence behavior in nearly every organization. We will also present some basic examples of their effects on behavior, their interrelationships, and their effects on each other. (It should be noted that we cannot describe all of the possible factors, effects, and relationships, inasmuch as they are too numerous and often too complex to discuss in a survey format.)

Figure 1: The Socio-Technical System -- A Model by Eric Trist (1960)
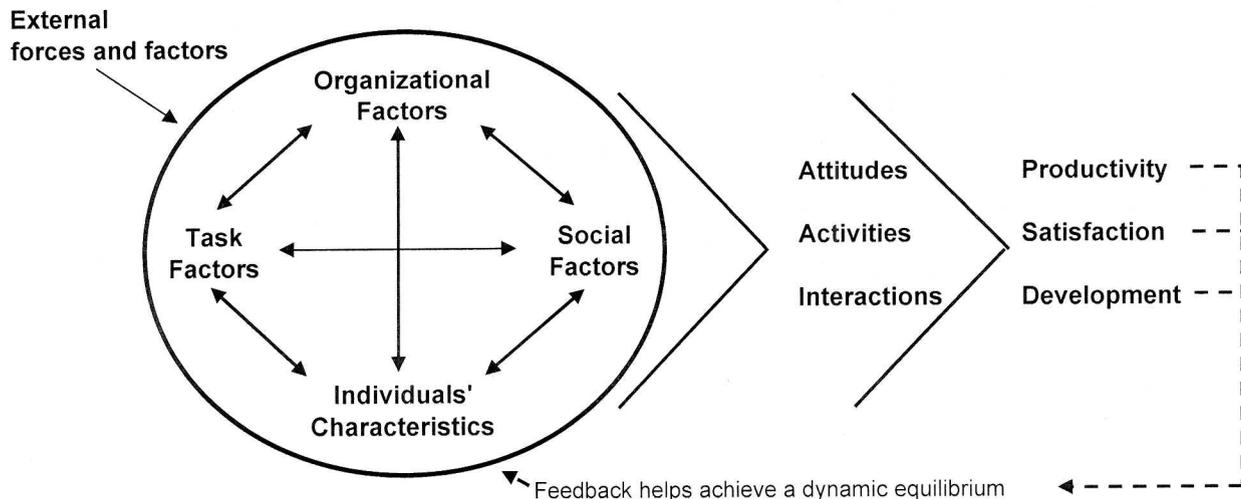
Table 1: Checklist of Socio-Technical Factors That Influence Organizational Behavior

TASK FACTORS
Job descriptions
Objectives
Activities
  Technical or functional
  Managerial / supervisory
    Analyzing, goal setting
    Planning, budgeting
    Problem Solving
    Decision making,
    Organizing, staffing
    Directing, coordinating
    Reporting, evaluating
  Equipment or tools
  Material inputs and outputs
  Information inputs and outputs
Work load - work flow
Communication facilities
Working conditions
Task interrelationships
Technology
Job input requirements
General or basic abilities
Specialized skills
Knowledge and experience
Other behavior patterns
General natures
(Mechanistic or Organic)
Complexity
Variability
Clarity of definition
Amount of change
Certainty of information
Time to outputs or results
Tangibility and measurability
  (of outputs or results)

ENVIRONMENTAL INPUTS
Business-oriented factors
Customers; suppliers
Competitors
Industry associations
Worker unions
Institutions
Government agencies
Religions
Capital markets
International institutions
People-oriented factors
Families; peers
General public, community
Social norms and customs
Religious affiliations
Social & recreational groups
Interest groups
Other
Technology; economy
Transportation facilities
Nature, weather, energy
Goods and services

INDIVIDUALS' CHARACTERISTICS
Motivators
  Basic needs or drives
    Physiological, safety
    Social, self-Image
    Self-actualization
  Values
    Intellectual, economic
    Social, political
    Aesthetic, religious
    Practicality, achievement
    Variety, goal-orientedness
    Orderliness, decisiveness
    Support, conformity
    Recognition, independence
    Benevolence, leadership
  Interests (occupational)
    Mechanical, outdoor
    Computational, scientific
    Clerical, persuasive
    Artistic, musical, literary
    Social service
  Goals and expectations
Capabilities
  Abilities
    Academic intelligence
    Vocabulary, social Insight
    Mechanical visualization
    Mechanical intelligence
    Clerical speed & accuracy
    Physical coordination
    Reading, communication
  Specialized (job) skills
  Knowledge & experience
  Physical traits
Personality traits
  Self-confidence
  Dominance, sociability
  Social conscientiousness
  Adaptability, maturity
  Original thinking, vigor
  Responsibility, self-control
  Emotional stability

SOCIAL VARIABLES
Group formation
People's needs & drives
Tasks' interdependence
Proximity & work flow
Frequency of interactions
Members' characteristics
Valued or shared traits
Intra-group relationships
Group norms & customs
Members' status & roles
Group maintenance
Enforcing sanctions
Conflict resolution
Image reinforcement
Membership norms

Sources/frequency of conflict
Interaction w/ other groups
Influence on organization

ORGANIZATIONAL INPUTS
History and traditions
Key elements of success
Objectives and strategies
Resources
Structures
Key integrative points
Key decision-making points
Formal structure
  Units or departments
  Vertical relationships
  Horizontal relationships
  Levels and spans of control
Informal structure
Policies, rules, procedures
Formal
Informal
Inter-unit interactions
Sources of conflicts
Contacts with environment
Systems
Information systems
Control systems
Practices
Performance evaluation
Wages, salaries, benefits
Hiring, selection, promotion
Training and development
Natures of tasks
Natures of people
Managerial or leadership styles
  and practices
Authority base
  (position vs. expertise)
Formality to subordinates
Nature of communications
  Advice and information
  Instructions and decisions
Degree of control
Specificity of subordinates'
  responsibilities & authority
Conflict resolution
Subordinates' participation:
  Goal setting & planning
  Problem solving
  Decision making
  Development of methods,
    procedures, policies
Assumptions/facts about
  subordinates
Task orientation
People orientation
General nature of organization (mechanistic to organic)

We suggest that as this segment is read or discussed, a manager or leader ask himself or herself how each factor might be affecting what is going on in the organization, why, and whether things could be improved. **Table 1** is an abbreviated, one-page list of socio-technical factors.

Task or
Technological Inputs

Tasks can be defined or described in a number of different terms. Each of the following "task factors" represents some aspect of any task. Each can either directly or indirectly influence individuals' performance, social activities, and the structure of the organization. Thus, each can be an underlying cause of an organizational problem.

Task Descriptions

Job Objectives: Objectives should be a part of any job description. They prescribe the outputs or results expected, usually in terms of quantity, quality, schedules, and so forth. They may outline a project and the milestones to its completion.

Normally, a job objective is expressed as a benchmark on some yardstick of performance measurement—for example: a cost reduction (yardstick) of 5% (benchmark) during a six month period (specific time frame or limit).

Job objectives are not necessarily motivators of behavior, but they do influence the direction and force of people's effort. If they are properly formulated and made clear, they can guide individuals in the desired directions. But if they are neither proper nor clear, productivity and on-the-job satisfaction can suffer.

Tasks (Job Elements): Jobs can usually be subdivided into distinct work elements—or tasks. These, too, are part of a job description. They amount to the separate activities to be performed in order to reach objectives.

Some jobs consist of only one or two basic tasks performed repeatedly. Where this is the case, the time span from start to finish tends to be relatively short. Such jobs can be found on assembly or process lines in production areas.

Managers generally have more numerous and varied tasks, which can include: technically oriented activities such as: operating a computer terminal or processing statistics; interpersonal activities such as building effective working relationships with subordinates and managers of other units; and managerial activities such as goal setting, planning, problem solving, decision making, organizing, staffing, providing direction, coordinating, reporting, evaluating, and taking corrective action.

Whereas objectives outline "what needs to get done," a description of tasks (activities) outlines "what to do to get it done." When an individual knows what his job is all about and what is expected of him, he is more likely to accomplish all of the necessary activities.

Equipment or Tools Utilized: This factor includes the machines, instruments, tools, devices, or other types of equipment necessary for accomplishing task activities.

These items can affect behavior in many ways. For example, if equipment is not in working order, properly maintained, or most efficient for the task, productivity cannot be maximized. Also, the complexity of equipment influences the levels of skills required for the job. In addition, a new office machine or a new set of tools can increase one's productivity, motivation, and status among her co-workers.

Material Inputs/Outputs: These include the materials, objects, parts, or even "subjects" on which job activities are performed.

In production areas, material inputs to one person's activities are generally material outputs from another person's activities—as long as parts or materials are "in process." However, even a finished product may be output from, say, production areas and input to sales functions. These relationships often mean that both the quantity and the quality of one individual's work depend upon the work that others have performed earlier in the sequence of productive activity.

If materials are not in the right place at the right time on an assembly line, for example, productivity can be disrupted all the way down the line. If material inputs are not in good condition or do not meet specifications, the quality of work can be reduced. As a result, individuals' pride in their work, and thus their motivation, can be adversely affected—from having to work with substandard materials or having to turn out an inferior product.

Materials, parts, products, and the results of many types of services are all tangible and can be fairly easily counted or measured, Measurability of output makes one's productivity (or performance) relatively easy to evaluate.

Informational Inputs/Outputs: The nature of these inputs is a function of task activities. Technical or skilled tasks can require such information as technical data, schedules, and procedures for operating or maintaining

equipment. Managerial tasks can require production output schedules, sales figures, personnel data, inventory figures, financial data, and so on—all various inputs to planning, problem-solving, decision-making, and other managerial activities.

If the outputs from one's job activities are more informational than material, they are less tangible and not as easily measured or evaluated.

Like material inputs, the right informational inputs must be in the right places at the right times. Answering some basic questions can help to assure that they will be:

What information is necessary for accomplishing assigned responsibilities? How often is it needed? In what form or format is it needed? Who or what is the source? Is the source's output reliable? Is there an efficient channel for getting the information from the source to the user?

When information must be directly communicated from one individual to another, interaction between individuals becomes necessary. (The need to communicate information can therefore be a vehicle for the development of interpersonal relaionships and social groups.) If existing interpersonal relationships are poor, or if new relationships turn sour, necessary information may be poorly communicated. This situation may breed conflict, which can hamper more than two people's productivity and satisfaction.

Work Load: Whether an individual performs one or two tasks repetitively or performs many different activities, how much he is expected to accomplish in a given amount of time constitutes his work load. This quantity of work can include a backlog of work to be completed.

In those cases where tasks are relatively routine and outputs are tangible, individuals' assigned work loads are often based upon established output or performance standards. In those cases where job activities are more varied and results are more difficult to measure, performance standards are more difficult to formulate.

If there is a balance between people's capabilities and their assigned work loads, productivity and satisfaction are more likely to be high.

Work Flow: In terms of materials or parts, work flow is the sequence or pattern in which "work in process" materials move from one work location (or operation) to the next. Here, the output of one task is input to the next task in the sequence. The physical locations of work stations (operations), and therefore the work flow, are influenced by the production processes involved, the equipment being used, people's job descriptions and work loads, and many other factors. When the flow of materials to and from work stations is efficient, and when operations at each station are being performed efficiently, productivity is likely to be high.

In terms of informational inputs and outputs, work flow is the sequence or pattern in which information is received, processed, used, and then communicated to another user. Since the same bits of information can be presented in a variety of formats and may be used by people performing a variety of functions, the flow of information can be much more complicated than the flow of materials. However, the physical locations of jobs where information is processed or used are less constrained by some of the factors mentioned above. Different types of communication facilties provide this flexibility.

Communication Facilities: These provide the means for communicating information between tasks, persons, and work areas. They can include intercoms, public address systems, walkie-talkies, phones, memos, letters, and visual electronic displays. (Voice and gestures are two additional modes of communication.)

The mode that is most efficient and effective depends upon what must be communicated, how quickly, and in what form in order to accomplish the job. Physical barriers to communication between people can interfere with job activities and interpersonal relationships.

Working Conditions: The atmosphere in which one works can influence both his productivity and her satisfaction on the job. Working conditions include such factors as noise level, air, lighting, working space, temperature, seating, floor covering, colors. workspace or office design, desk space, decor, privacy, cleanliness, orderliness, safety devices and precautions, personal facilities, rest and recreational space, architectural design, landscaping, etc.

When working conditions are pleasing, comfortable, and safe, people's physiological and safety needs can be more or less satisfied. However, when they are unsatisfactory, people become more easily dissatisfied.

Task Inlerrelationships: A relationship or interface exists between any two tasks (or jobs) when the material, service, and/or informational outputs of one are inputs to the other. An interface relationship, therefore, amounts to an interdependency between tasks. These relationships are influenced by job descriptions, job input and output requirements, the organizational structure, and the work flow—among other factors.

Interface relationships exist within production units (for example, one worker transfers work in process to another worker). They exist within marketing departments (for example, in order to formulate advertising campaigns, advertising personnel use information provided by salesmen and market research personnel). They exist between functional units (for example, in order to establish production schedules, production units utilize sales data and forecasts provided by marketing units). They exist between line and staff units (for example, personnel and accounting staff units provide manpower and payroll data to production and marketing line units, which enable the latter to budget their manpower requirements). They also exist between a boss and his subordinates (for example, the boss receives reports from subordinates and communicates advice and information to subordinates).

Many if not most of these relationships require people to interact with each other. Therefore, interface relationships provide opportunities for interpersonal contact and represent vehicles for the development of interpersonal or social relationships.

Tasks' interrelationships also influence an organization's structure. Tasks are interdependent because they are specialized (or differentiated). They must be coordinated (or integrated) if the organization is to function properly. If important relationships among tasks are reflected in the formal structure of the organization, the structure itself will provide a framework within which coordination of interdependent tasks can be achieved in an orderly, systematic manner.

Technology: Probably the single most important influence on the above factors is technology.

Where the technology is complex, jobs are more complex. This applies, for example, to the fields of biology, chemistry, medicine, metallurgy, electronics, computer systems, mathematics, and physics. When a job is touched in any manner by these and other sciences, it is certain to become more complicated.

Many production-oriented jobs have become more complex with the introduction of sophisticated processes and machines. Managerial jobs have been complicated by new management techniques and by the introduction of technological advances into organizations. Marketing functions have become more complex through the adoption of sophisticated market research techniques. Any area where computers are used is certain to be made more complex. On the other hand, some jobs remain relatively untouched by technological progress. These are more likely to be physical and manual jobs where machines have not yet replaced humans.

The pace at which technologies advance varies from one field to another. Where technological change is slow, job-related information, methods, and procedures are relatively certain and unchanging. Where technological change is rapid, job-related information, methods, and procedures are more changing and uncertain.

Thus, technology affects the division of labor (specialization), and, therefore, job descriptions. It also influences organizational structures. social relationships, and job skill requirements, among other factors.

Job Input Requirements

The inputs required in order to accomplish any job successfully include general abilities, specialized skills, knowledge and experience. and various other traits or behavior patterns. The specific inputs required by a job are directly influenced by such factors as the activities to be performed, the equipment or methods to be used, and the materials or information to be processed.

Abilities: Certain general abilities are required in various types of jobs. Mechanically-oriented jobs require relatively high levels of abilities such as mechanical visualization and mechanical comprehension (for visualizing and solving mechanical problems or for operating mechanical equipment). Clerical jobs require relatively high clerical speed and accuracy. Top management and other professional jobs seem to be accomplished more effectively by those who have relatively high academic intelligence (for comprehending, assimilating, or thinking about things of a less concrete, more conceptual or abstract nature). Leaders, politicians, managers, and salesmen should possess a relatively high degree of social insight (for understanding and judging social behavior). Most jobs require a combination of these and other abilities.

Specialized Skills: Most jobs also require certain specialized skills that are directly related to the more technical or functional aspects of the job. Examples include the various mental and physical skills involved in, for example: operating a particular office machine, preparing or analyzing budgets and financial statements, operating a computer terminal, assembling a certain electronic component, demonstrating a particular type of product, and other specialized activities requiring specialized skills.

Knowledge Factors: Both general and highly specialized knowledge are required in most jobs. General knowledge can include an understanding of people, a general

vocabulary, and a knowledge of basic arithmetic principles. Specialized knowledge, which applies more to the technical or functional aspects of the job, can include: technical data, specialized or technical experience, and a knowledge of certain technical methods and procedures.

Other Behavior Patterns: Effective job performance can also depend upon a person's values, personality traits, interests, drives, and personal goals and expectations. For example, some tasks require effective interpersonal relations. These are aided by "people-oriented" values, drives, and personality traits (as well as social insight). On the other hand, some tasks require that the individual work more or less alone. A less people-oriented person is better adapted to these jobs.

General Natures of Tasks

Tasks have various characteristics that can also be used to describe them. These characteristics make up their general nature and include: complexity, specificity of definition, variability, amount of change, certainty of information used, time span to outputs or results, and tangibility of outputs or results.

Complexity:

Simple tasks are rather easy to perform. They require little complicated thought and the use of only a narrow range of very basic abilities. Whereas these can be physical or manual tasks that involve working with material inputs and simple tools or equipment, they can also involve the uncomplicated processing of information. Simple tasks can be found at the worker level in offices and production areas, for example.

Complex tasks, on the other hand, are difficult to perform and require a wider range of capabilities. They are basically information-processing activities such as planning, problem solving, decision making, and innovating, and therefore involve a great deal of thought. Among the capabilities required are mental skills and knowledge of a technical, conceptual, or abstract nature. Complex tasks can be found either at managerial levels of an organization or at any level where a complex technology is involved.

Specificity of Definition:

Clearly definable tasks are those having objectives and descriptions that can easily be stated in very specific

terms (e.g., "this specific activity is to be performed in this manner at this particular time"). Such tasks tend to be found most often at the worker level.

Ambiguous tasks are those having objectives and descriptions that cannot be stated in very clear or specific terms. This characteristic applies to many managerial activities, because they involve such a variety of complex goal-setting, planning, problem-solving, and decision-making situations.

Variability:

Routine or repetitious tasks are performed more or less repeatedly, with little or no variation in the manner in which they are performed. These are generally simple tasks that have a relatively short completion time and require only a narrow range of skills. Many assembly line tasks and some clerical tasks fit this description.

Varying tasks are not usually repeated each time they are completed. but, rather, are followed by a different task or activity. In addition, the manner in which they are performed can vary. [When tasks are varied, a wider range of skills is required.] Although simple tasks may be varied in these respects (especially the first), the most varying tasks are complex tasks such as managerial problem solving and deciston making. Whereas these activities are performed frequently. they are generally not performed repetitiously. The problems to be solved and the decisions to be made are varied, and each can be approached in a different manner.

Amount of Change/Certainty of Information Used:

Unchanging or certain tasks exist where there is little or no change in the procedures, methods, processes, equipment, or material and informational inputs used. Under these conditions, new skills or information do not have to be acquired on a frequent basis. Such tasks are generally found at the worker level in, for example, production and clerical areas.

Changing or uncertain tasks exist where there is frequent or unpredictable change in the methods, procedures, processes, equipment, or information used. These conditions require the frequent updating or acquisition of skills and information.

Many research tasks are uncertain and changing due to accelerating technological advances. Marketing and general management activities also fit this description, because they depend upon informational inputs that orig-

inate in a rapidly changing economic, social, and political environment.

Time Span to Outputs or Results:

Immediate outputs or results are typical of tasks that have a completion time of seconds, minutes, or, at the most, hours. Assembly line tasks are good examples, as are many other worker level tasks.

Delayed or long-term results or effects are typical of managerial tasks such as planning, problem solving, decision making, and innovating. Not only do the outputs (goals, plans, solutions, decisions, ideas, concepts) require hours. days. or weeks to formulate, but the outcomes, effects, or results of their implementation or use may not be evident for weeks or months. The results of investment decisions, for example, may not even be fully apparent for years.

Tangibility/Measurability of Outputs or Results:

Tangible outputs include products, parts materials, objects, or the results of a service that can be seen, counted, inspected, measured, and easily evaluated. This characteristic is typical of production- and service-oriented tasks to which the inputs have been materials of some kind.

Intangible results are typical of managerial tasks such as planning, problem solving, decision making, and innovating. Here again, the outputs include goals, plans, solution, decisions. ideas, and concepts—which may be visible on paper when they are first formulated. However, the results or effects of their implementation or use are generally intangible and difficult to quantify, inspect, measure, and evaluate.

Characteristics of Mechanistic Tasks:

Tasks that are simple, easily defined, routine, certain, unchanging, and have immediate and tangible results are mechanistic in nature (**Table 2**). Where any one of these characteristics exist, all six tend to exist. The more easily a task can be accomplished habitually or "mechanically" (i.e., without thinking, or while thinking about something else), the more mechanistic it tends to be.

Examples of some of the most mechanistic tasks are: bricklaying, ditchdigging, floorsweeping, and simple assembly line tasks such as grinding the rough edges off of identical pieces of metal as they pass the work station, or soldering the same connection on identical electronic components as they pass the work station.

Characteristics of Organic Tasks:

On the other hand, tasks that are complex, difficult to define, varying, uncertain, changing, and have delayed and intangible results or effects are organic in nature. These tasks involve more complex, mentally-oriented activities such as planning, problem solving, decision making, and innovating. Examples of some of the most organic tasks include those of a top level executive, a research scientist, or a staff analyst and planner.

Natures of Jobs and Their Effects on Behavior

Nearly all jobs involve some mechanistic tasks and some organic tasks. Some jobs, however, consist mostly of mechanistic tasks and are therefore almost entirely mechanistic in nature. Some jobs consist mostly of organic

Table 2: Natures of Mechanistic and Organic Tasks

Characteristics	Mechanistic Tasks	Organic Tasks
Complexity	Simple (manual or physical)	Complex (thought-oriented)
Variability	Routine / Repetitious	Varying
Specificity of definition	Clearly and easily definable and prescribable in specific terms	Ambiguous
Amount of change	Unchanging	Frequent or unexpected change
Certainty of information used	Certain information	Uncertain information
Time span to outputs or results	Immediate outputs	Delayed results or effects
Tangibility/measurability of outputs or results	Output tangible, easy to measure and evaluate	Results or effects intangible, difficult to measure and evaluate

Figure 2: Natures of Tasks at Four Organizational Levels

Complexity of Tasks (and Jobs) Increases ----------➤

Proportion of Mechanistic Tasks in Jobs Decreases ----------➤

Proportion of Organic Tasks in Jobs Increases ----------➤
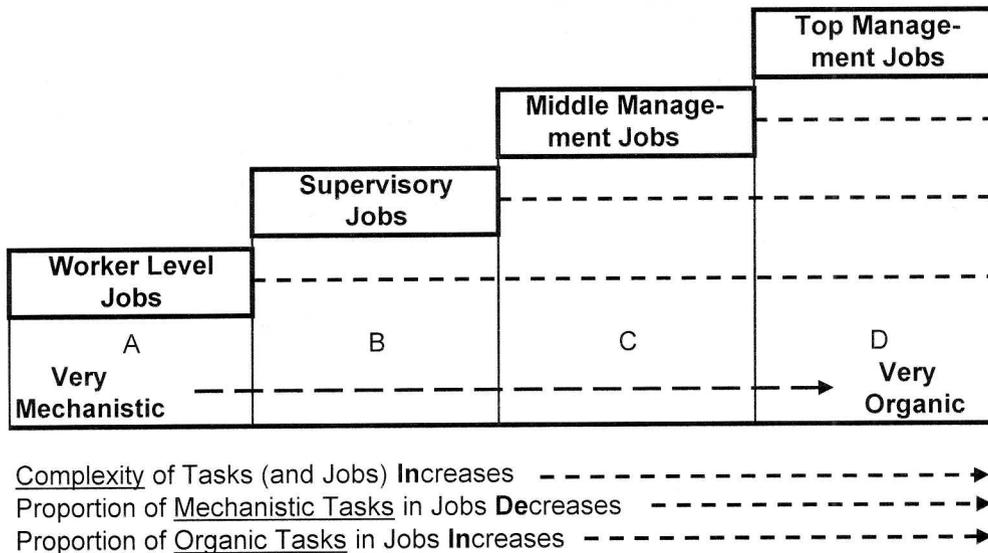
tasks and are therefore almost entirely organic in nature. Others fall somewhere between the two extremes. Thus, all jobs can be fitted onto a continuum that ranges from "very mechanistic" to "very organic."

Most worker level jobs consist of highly mechanistic tasks and/or the largest proportion of relatively mechanistic tasks. These jobs are therefore very mechanistic and typically fall into area A in **Figure 2**. Many of these jobs, however, can be made somewhat less mechanistic through job enlargement or job enrichment (which are aimed at making jobs more complex and/or varied, and, therefore, more challenging and/or fulfilling). Enlarged or enriched jobs can fall into area B if the degree of complexity or variability achieved makes them that much more organic. Workers' jobs can fall even more solidly into area B if the workers themselves participate in planning and controlling their activities. In those cases where worker level personnel are mostly involved in processing complex information, solving complex problems, or dealing with a complex technology, their jobs can fall into areas C and D (the latter of which involves the highest degrees of complexity, variability, ambiguity, etc.).

Most supervisory jobs tend to fall into area B, because these jobs include responsibilities for organic tasks such as planning, coordinating, problem-solving, and decision-making, and therefore consist of a somewhat higher proportion of organic tasks. In cases where supervisors participate in higher level, more complex goal-setting, planning, problem-solving, and decision-making processes,

their jobs can fall into area C. If their own and their subordinates' jobs mostly involve processing complex information or dealing with a complex technology, their jobs can be very organic (area D).

In general, the higher a manager's level in an organization, the more complex the planning, problem-solving, and decision-making processes involved in her job, and the greater the proportion of these organic activities in her job. Thus, middle managers' jobs typically fall into area C, and top level managers' jobs typically fall into area D. The performance of the organic activities involved in these managerial jobs enables the organization to integrate specialized technical or functional units, to deal with uncertainty, and to be flexible to change.

The natures of people's jobs can directly influence their behavior in numerous ways. The following are several important examples:

Because **mechanistic jobs** involve relatively simple tasks, they can be disinteresting. Since the tasks are routine, repetitious, and unchanging, and because they can be performed mechanically (habitually), these jobs can be monotonous and boring. Because such jobs are generally found at lower levels of an organization (and are simple), relatively low status is usually associated with them. For these reasons, and also because mechanistic tasks require only a narrow range of skills, mechanistic jobs can be unchallenging and unfulfilling.

Under these conditions, many individuals derive little satisfaction from the job itself. (Of course, the degree of satisfaction or dissatisfaction people experience also depends upon their capabilities, values, needs, goals, personalities, and other personal characteristics.) When this is the case, as it quite often is, neither their on-the-job motivation nor their productivity can be maximized. Instead of concentrating their attention and effort on the work itself, they tend to turn their energies toward more fulfilling activities on the job (e.g., social interaction and daydreaming) and/or toward more fulfilling activities away from the job. (Organizations' recognition of these effects has been partially responsible for efforts to enlarge or enrich jobs and to use more modern, more sophisticated managerial styles and practices.)

The opposite tends to apply to **organic jobs**. Since the tasks involved are complex, varied, and subject to change, these jobs are usually neither dull nor monotonous. Since they are normally found at higher levels of an organization (and are complex), relatively high status is usually associated with them. For these reasons, and also because organic tasks require more thought and a wider range of skills, organic jobs can be more challenging and fulfilling.

Organic jobs, therefore, tend to offer greater opportunity for personal achievement and fulfillment on the job. These are significant reasons why persons performing organic jobs (i.e.. managerial jobs) can tend to be more highly motivated by the work they do.

The natures of mechanistic and organic tasks also influence the structures of the organizations surrounding them and the behavior of those who manage or supervise them. For example, the research studies of Burns and Stalker (1961), Fiedler (1965), and Lawrence and Lorsch (1967) seem to indicate that, in general: Where groups are involved in more mechanistic tasks, a controlling, "mechanistic" structure or a controlling, active leader is most effective. (These findings reflect the way things generally are, and not necessarily the way they perhaps ought to be.) On the other hand, where groups are involved in more organic tasks, a less controlling. more "organic" structure or a more permissive, considerate leader is most effective.

Individuals' Inputs

People's various characteristics and behavior patterns influence task factors, social interactions, and organizaional structures, policies. and procedures. These inputs can be classified as capabilities and motivators. To be successful in a job, an individual must have both.

Capabilities

Various types of capabilities are required in order to perform any job well. These characteristics include general abilities, specialized skills, certain physical traits, knowledge and experience, and appropriate personality traits—among others. The specific abilities, skills, knowledge and other characteristics required will vary from job to job, as will the required levels of each of these personal inputs. The characteristics and the levels required are determined by one's job description and the activities to be performed. If the individual has the appropriate level of each of the necessary capabilities, he or she at least has the potential to perform well.

Abilities: Some of the general abilities include:

Academic intelligence (for comprehending and assimilating either concrete, conceptual, or abstract types of information, and for solving verbal and arithmetic problems); *mechanical visualization* (for being able to visualize and manipulate object, parts, and other visual arrangements in space); *mechanical comprehension* (for solving mechanical problems or working with mechanical equipment); *social insight* (for understanding and judging social behavior); *vocabulary* (for expressing oneself and thinking logically); *reading skills* (which include both reading speed and comprehension); *communicative and persuasive abilities*; and other learned or developed abilities of a general nature.

Specialized Skills: This group of learned abilities is more related to the technical or functional aspects of one's job. They can include both mental and physical skills involved in, for example: operating a particular office machine; directing a computer operation; preparing or analyzing budgets and financial statements; running a retail sales operation; developing training materials; assembling a particular electronic component; and so on.

Physical Traits can include strength, energy, stamina, and physical coordination, which are needed in physically-oriented job activities. One's general health is another factor. Physical traits can also include one's features and general appearance, which can influence other peo-

ple's reactions to the individual and, thus, his or her interpersonal relationships.

Personality Traits are more or less observable behavior patterns that have a direct impact upon one's performance and interpersonal relations. The following traits have been selected from personality measurement instruments by Bernreuter (1931), Guilford-Zimmerman (1950), Thurstone (1953), Gordon (1960, 1963), Cattell et al (1970), Gough (1975, 1996), and others. They include, for example: *vigor*; *self-confidence*; *dominance* (self-assertiveness); *sociability* (gregariousness); *adaptability* (self-honesty and flexibility); *social conscientiousness* (social ethics and benevolence); *mature relations* (social "give and take," cooperativeness, agreeableness, tolerance); *responsibility* (reliability, thoroughness, persistence); *original thinking* (thoughtfulness, intellectual curiosity, imagination, creativity); *emotional stability* (disposition, calmness, freedom from tensions and anxieties); *self-control* (self-discipline, cautiousness).

Every individual has a personal combination of these traits—each trait falling somewhere on a scale that ranges from "very low" to "very high." Some combinations are more "people oriented" than others. Depending upon the amount of interpersonal contact required by the job, some combinations can therefore be more appropriate than others. A person's managerial or leadership style is very definitely affected by his or her particular combination of levels of these traits.

Knowledge and Experience can include general information and experience, and more specialized, job-related information and experience.

Both types are essential for successful performance in any kind of job. With respect to managerial jobs, they are basic inputs to goal setting, planning, problem solving, decision making, and many other managerial activities.

Whereas much of a person's knowledge and experience is very factual, concrete, and objective, some is likely to consist of opinions, beliefs, and biases. These tend to be more attitudinal or subjective than factual and objective. When they are either improper or incorrect, they can easily lead to inappropriate decisions and interpersonal behavior.

Motivators

Although capabilities are certainly important inputs to any job, they alone are not enough if one is to perform

well. One must also have the motivation. "Motivators" are characteristics that prompt, urge, or induce an individual to actually apply his or her task-oriented and people-oriented capabilities on the job.

Basic Needs or Drives: According to Maslow (1954), these include: *physiological needs* (for food, water, sex, excretion, and shelter) and *safety needs* (for protection from danger, attack, and illness). If the satisfaction of these needs is jeopardized by such factors as unsafe working conditions or wages that are too low to support the individual and his or her family, on-the-job dissatisfaction can be great.

They also include: *social needs* (to affiliate with others, to obtain acceptance. to "belong," and to give and receive friendship or love); *self-image needs* (for a personal identity. self-esteem. others' respect, and personal achievement); and *self-actualization needs* (to grow and develop and to attain one's potential). When these needs can be fulfilled on the job, they become highly effective positive motivators.

Values: Values are also motives in that they represent what is important to the individual.

"**Valued Matters**" (Allport et al, 1960). These reflect concerns for various matters. These include: the *intellectual or theoretical value* (concerns for truth, study, and knowledge); the *economic or business value* (concerns for practicality and business success); the *social value* (love of people and concerns for their well-being and social justice); the *aesthetic or artistic value* (concerns for beauty, harmony, and form); the *political value* (concerns prestige, power, influence, position, and authority); and the *religious or spiritual value* (concerns for spiritual truth and religious activities, beliefs, and experiences). Every person values some matters more highly and other matters less highly (or not at all).

Certain of the above matters can be important aspects of one's job. Those that are important vary from one job to another. If important job-related matters are highly valued by the individual, she will tend to give them the necessary attention and effort. However, if these matters are not important to her, she will not tend to concern herself with them and will therefore not be as effective on the job.

"**Coping Values**" (Gordon, 1967). These represent the importance a person attaches to various modes of coping with everyday situations. These include *practical-*

mindedness, need for achievement, *need for variety*, *decisiveness*, *orderliness*, and *goal-orientedness*. Like valued matters, some are more important to an individual and some are less important.

Certain modes of coping can also be important aspects of one's job. Those which are important vary from one job to another. If important, job-related modes of coping are highly valued by the individual, he will tend to cope effectively with situations that arise on the job. However, if they are not important to him, his ability to cope will probably not be as great.

"**lnterpersonal Values**" (Gordon, 1960). These reflect how a person feels about herself, others, and her relationships with others. They include her needs or concerns for *support*, *conformity*, *recognition*, *independence*, *benevolence* toward others, and *leadership*. These attitudes affect one's personality and her behavior toward others. They therefore influence how she will treat or respond to those with whom she works.

Interests: Interests reflect attitudes toward objects and activities. A high positive interest in something tends to motivate a person to interact readily with the object or to involve himself whole-heartedly in the activity.

A wide variety of vocational and avocational interests can be grouped into categories identified by Kuder (1948, 1972): *mechanical*, *outdoor*, *scientific*, *computational, persuasive*, *artistic*, *musical*, *literary*, *social service*, and *clerical*.

When an individual is highly interested in activities that are important aspects of his job, he will be inclined to give these activities the necessary attention and effort. If, however, he is not particularly interested in important job-related activities, he will not be as inclined to perform them well. In fact, he may even redefine the job around his own interests, which can mean that certain tasks will not be performed at all.

Goals and Expectations: Goals are future-oriented statements concerning an individual's desires or intentions—in terms of, for example, who she wants to be, where she wants to go, or what she wants to have. Expectations reflect what the individual thinks she can or should have, do, or be.

If a person's goals and expectations are compatible with organizational objectives, she can attain his goals while at the same time making the desired contribution to organizational objectives. If, however, her goals and expectations cannot be fulfilled on the job, she may turn her

energies toward more fulfilling activities that are not productive. Or she may resent the organization's objectives and behave accordingly. Or both. Under these latter circumstances, neither the individual nor the organization benefit.

All of these capabilities and motivators constitute individuals' inputs to organizational behavior. Not only do these characteristics influence their performance, they also influence their social relationships. For example, shared characteristics are quite often the bases for the formation of friendships. As another example, the manner in which a manager's or leader's abilities, knowledge, and personality are regarded by his subordinates can influence his relationships with them.

Individuals' characteristics also influence organizational factors such as policies, structures, and managerial styles. For example, greater managerial insight into people's social, self-image, and self-actualization needs has been partially responsible for the increasing use of managerial styles and organizational policies that give people a greater opportunity to fulfill these needs on the job.

Many managers and leaders seem to believe that these characteristics are static or unimprovable in most individuals. This does appear to be true of academic intelligence, mechanical visualization, and clerical speed and accuracy —in an adult. Fortunately, it does not appear to be true of other general abilities, specialized skills, values, personality traits, interests, goals, expectations, knowledge, experience, and physical traits. All of these characteristics can be either changed, improved, altered, or further developed. Even basic drives can be influenced and modified.

However, this is not to say that modification or further development of characteristics is always easy. General and specialized knowledge and specialized skills are relatively easy to improve through formal and on-the-job training. However, characteristics such as problem-solving habits, learning skills, values, attitudes, beliefs, and personality traits are more difficult to alter or improve. Their modification requires that they be developed and continually reinforced over longer periods of time.

Individuals' characteristics are important inputs to organizational behavior. Through the use of tools such as training and development, and through the use of modern managerial and leadership practices, these inputs can be improved or further developed so as to maximize people's productivity, satisfaction, and development.

Organizational Inputs

Organizational factors are influenced by the natures of tasks, the technology involved, the natures of personnel, social interactions, and the external environment. In turn, each organizational factor can affect job descriptions, social activity, the characteristics of people being hired and promoted, and the productivity, satisfaction and development of personnel.

General Organizational Inputs

Objectives and Strategies: Every organization should have long-term, intermediate-term, and short-term goals and plans. These are basic tools for channeling people's behavior in the desired directions. Performance within the organization is more likely to be optimized if goals and plans are well conceived, clear, and formulated with the participation of personnel who are directly affected by them.

An organization's objectives and strategies also influence the organization's size and structure, the natures of people's tasks, the natures of personnel, and the organizaion's resource needs—among other factors.

Resources: As a vehicle runs on fuel, an organization runs on resources. Its main resources are personnel, materials, and money. If the resources available to the organization are sufficient, it can accomplish its planned activities and meet its objectives.

Behavior is affected in many ways by this factor. For example, if an individual's job objectives require the use of more resources than have been allocated to him, he may conclude that it is impossible to reach these objectives successfully, and therefore reduce his effort to do so. Or he may use what resources he does have to meet easily attainable objectives at the expense of more important objectives. As another example, the budgeting process itself often brings out aggressive behavior among managers who, on behalf of their respective units, are each vying for a larger share of the organization's resources.

History and Traditions: An organization's past is a definite influence on its present and future. How it evolved or grew can affect where it is going and how quickly or efficiently it is getting there. If its traditions are more conservative than progressive, they can inhibit organizational growth, development, and improvement.

Managers should occasionally ask themselves several questions: What exactly are our traditions? Why were they first established? Why have they been perpetuated? Are they now functional or dysfunctional for meeting our present goals and plans? Are they now functional or dysfunctional for personnel's productivity, satisfaction, and development?

Key Elements: These are the elements of the organization's objectives and plans upon which the success of the organization most depends. To one organization a key element might be its productive capacity. To another it might be its research effort. To yet another it might be its sales effort. An organization's ability to raise the necessary capital could also be a key element in its expansion plans. Of course, the key elements could be combinations of these and other distinct elements. Some elements, however, are usually more "key" than others.

The operating or functional units, that are responsible for key elements or activities can be considered key units. These units are most likely to receive the resources they need to operate successfully.

Key Integrative Points: Since tasks are specialized (differentiated), they must be coordinated (integrated) if an organization is to operate smoothly and effectively. Integrative points are managerial or supervisory positions, where responsibilities lie for coordinating groups of specialized tasks. A marketing department manager, for example, could coordinate the activities of advertising, sales, and market research personnel. A division manager. in turn. could coordinate the activities of marketing, production, personnel, and accounting departments. Key integrative points, then, would be those managerial positions where responsibilities lie for integration of groups of specialized tasks that are involved in key elements or activities.

Key Decision-Making Points: These are the positions in the organization where responsibilities lie for processing key information, for making decisions concerning key elements, and for disseminating key information or instructions to various units or individuals. Since many key decisions influence the coordination of activities, these points are generally key integrative points as well.

Key integrative and decision-making functions can exist at supervisory levels as well as higher managerial levels. However, the integrative and decision-making processes at higher levels are generally more complex and usually affect a greater number of units and jobs.

FormaI Structure: The formal structure of an organization can be described as a horizontal and vertical arrangement of units and integrative and decision-making positions—an arrangement intentionally designed to facilitate the coordination of people's and units' activities so that certain unifying objectives can be achieved efficiently.

An organization chart usually depicts an organization's formal structure. It indicates the horizontal and vertical relationships (interfaces) that are meant to exist among jobs, positions of authority, and units (e.g.. departments. divisions, subsidiaries. etc.). It therefore also indicates lines of authority, responsibility, and communication (e.g., who reports to whom concerning what; who supervises whom; who is responsible for which decisions; and who interacts with whom in order to get something done). In addition. it indicates the number of levels of authority and the span of control at each level.

Span of Control can be defined in two ways. The *immediate span of control* is the number of immediate subordinates reporting to a leader or manager. If, for example, an individual has three immediate subordinates, her span of control is narrow, and the manager/subordinate ratio is high (one to three, or .33). If she has ten immediate subordinates, her span of control is wider, and the manager/subordinate ratio is lower (one to ten, or .10). An individual's *total span of control* can be much wider if she is responsible for a unit comprised of several levels of managerial, supervisory, and worker personnel.

From five to seven immediate subordinates has traditionally been considered the ideal span of control. Wider spans of control, however, are made possible by each of the following factors: (a) subordinates' jobs are relatively mechanistic; (b) their jobs are technically or functionally very similar; (c) personnel are highly trained and motivated; (d) highly interdependent jobs can be partially coordinated through the use of assembly line methods; and (e) personnel are trained, encouraged, and permitted to plan and monitor their own work during short-term intervals, guided by longer-term goals and plans, policies, and procedures that they themselves participated in formulating. It has been shown that a first-line supervisor can effectively (more like "satisfactorily") coordinate as many as fifty subordinates when most of these conditions exist. The last condition, however, is a key to his or her effectiveness.

On the other hand, the number of subordinates one can effectively coordinate is reduced by each of these factors: (a) subordinates' jobs are highly complex; (b) their jobs are technically or functionally very different; (c) their jobs are highly interdependent (but not subject to assembly line methods); (d) locations of boss's and subordinates jobs are physically separated or geographically dispersed; (e) the competence and motivation of personnel are low; and (f) personnel do not participate in integrative (managerial) functions that directly affect their activities. In fact, having as few as three or four immediate subordinates can be appropriate when: (a) they perform complex managerial jobs; (b) their specialized units functions and activities are highly interdependent; and (c) each manager's total span of control is relatively wide.

Some of the questions that one should ask about his organization include: Are key decisions being made at the right levels? Is decision-making too centralized (in too few people)? Are jobs being coordinated at the right point or level? Does the organization chart correctly indicate the interdependencies among jobs? Are managers and supervisors' spans of control appropriate?

Informal Structure: Prescribed lines of authority and communication are often cumbersome. Being cumbersome, they sometimes prohibit swift and effective reaction to changes or problems. When this is the case, informal vertical and horizontal relationships tend to develop in order to expedite information exchange, decision making, or coordination both within and between units. Thus it frequently happens that an individual communicates directly with someone in another unit in order to obtain advice, information, instructions, or decisions— rather than using formal channels of communication (which usually involve going "up, across, down, back up, back across, and back down").

Whereas informal relationships can be functional, they nevertheless bypass the "chain of command." When they do, those responsible for overseeing units' activities may not be aware of what is happening—unless they are kept informed. One should be aware of these informal relationships and ask oneself whether they are functional or dysfunctional for coordination, decision making, and communication of information.

Formal PoIicies, Rules, and Procedures: Those that prescribe what to do and/or how and when to do it are usually aimed at guiding behavior so that performance will be efficient and effective. Those that prescribe what not to do and/or how and when not to do it are generally aimed at prohibiting potentially inappropriate behavior.

Where prohibitions conflict with individuals' drives, values, goals, or expectations, tensions and stress are likely to develop. These may interfere with productivity and job satisfaction. Where policies, rules, and procedures are

aimed more at technical aspects of the job, there is relatively less reason for conflict to develop.

The questions one should ask himself are: Why were the existing policies, rules, and procedures originated? Does each serve its intended purpose? Is it still functional, or should it be changed (or eliminated)?

Informal Policies, Rules, and Procedures: These are the "do's" and "don'ts" that are not "on the books." Many are customs, norms, or traditions that do not have to be written (e.g., "even if you have substantial authority, don't flaunt it"). Others are originated to supplement formal directives and prohibitions or to "close loopholes" in them.

The questions one could ask about these are: How did each originate? Why was it not formalized? Is it still functional, or should it be changed or discontinued?

Inter-Unit Interaction: The type and amount of interaction between units is mostly due to the interdependencies among their objectives and activities. The more that one unit depends upon another unit's material, information, or service outputs, the greater its need to interact with the other unit.

Conflicts between groups can easily arise if the poor performance of one adversely affects the performance of another, if the natures of tasks in separate units conflict in some way, or if the personalities of people performing one type of task conflict with those of people performing another.

Contact with the External Environment: Salespeople have direct contact with customers. Purchasing agents have direct contact with suppliers. Financial personnel have contact with financial institutions. Production workers have contact with union representatives and officials.

The more that individuals' or units' activities are related to what occurs in the external environment, the more vulnerable they are to the forces of change and uncertainty. This can be particularly true of marketing and research personnel. Marketing personnel must constantly adjust marketing goals and plans based upon rapidly changing market conditions and uncertain predictions about the future. Research personnel, who must constantly react to rapid technological advances, are usually uncertain as to how soon the most recent changes in their equipment, procedures, and data will become outmoded. Where there are these constant relationships, and where information is quickly changing and uncertain, individuals and units must have the capabilities and flexibility to cope and adjust.

Information Systems: Information systems involve the collection, analysis, processing, and distribution of information. Accounting data, sales figures, production data, inventory receipts and issues, personnel's hours, and so forth can all be inputs. These and other inputs can be analyzed and processed by a central computer, by clerks in various departments, and by managers of various units. Processed information can be distributed to units in formats that provide the information they need to plan, solve problems, make decisions, and coordinate activities.

The design of an information system influences its effectiveness and reliability. Information outputs are only as good as the inputs and the processing functions. Several questions are basic to effective system design: Who needs what information and why? In what form? How often?

Control Systems: Control systems are meant to be tools for helping managers or administrators control their operations. They consist of structures and procedures for: planning; initiating action; coordinating activities; measuring, reporting, and evaluating results; and taking timely corrective action.

In many if not most organizations the control system is tied in with the information system. The latter provides informational inputs for planning, and is also used to collect, process, and partially analyze information concerning results.

When control systems are properly designed and implemented, they can improve the performance of both managers and their personnel. However, if they are poorly designed and implemented, they can, for example, misdirect people's effort and fail to signal those problems that require either the greatest or most immediate attention.

Performance Evaluation Practices: Effective performance appraisal involves managers' evaluation of subordinates' capabilities and potentials—as well as their performance. Evaluation of their performance is usually accomplished by comparing their actual outputs or results with the performance objectives set for (or with) them.

Several important purposes of performance evaluation are to: (a) let people know how they are doing and where they are going; (b) determine their strengths and weaknesses so as to formulate (individual) programs for improving their performance in their present jobs (by capitalizing on strengths and remedying weaknesses); (c) determine individuals' potentials so as to formulate (individual) programs for developing their potentials (and their promotability); (d) assure that the most qualified personnel are advanced; and (e) determine what bosses and sub-

ordinates can do for each other in order to make better progress as a team.

Performance evaluation should be done with individuals—not to them. It should emphasize doing the right things—not just doing things right. Also, it should involve the assessment of people's abilities to set objectives—not just their abilities to attain them. Furthermore, it should be accomplished more frequently than once a year. Performance appraisal should not be regarded as a means for rewarding and punishing personnel. Rather, it should be regarded as an opportunity to determine why people are performing as they are, so that problems can be dealt with constructively and people's capabilities and performance can be improved to the fullest extent.

The manager or leader should ask himself such questions as: Do my performance evaluation practices accomplish the purposes mentioned above? Are my practices functional for my people's productivity, satisfaction, and development'? Are the performance measurements that I use fair? Do they influence people to behave in the most functi5nal manner? Do my personnel understand the measurement yardsticks and the order of priorities among objectives? How many yardsticks (objectives) do I use? Too many for people to deal with effectively, or too few to guide them in all of the desired directions? In the process of meeting job objectives, have my personnel also been able to satisfy their own personal drives, motives, and goals (thereby maximizing their on-the-job motivation)?

Wages, Salaries, and Benefits: Wages and salaries constitute monetary compensation. Benefits constitute nonmonetary compensation and can include paid vacations, stock options, medical care, insurance of various kinds, use of recreational facilities, subsidized meals, and so forth.

Wages, salaries, and benefits should (a) fulfill the basic needs of personnel, (b) be commensurate with the work they do, (c) be based upon fair and objective performance appraisal, (d) be in line with competitive compensation scales, and (e) be administered with equal fairness to all personnel. When these conditions are not met by an organization, personnel can easily become dissatisfied and resentful, which adversely affects on-the-job motivation and performance.

Hiring, Selection, and Promotion Practices: These practices involve recruiting, screening, and choosing among prospective job holders. They are meant to assure that jobs will be filled by those who possess the highest job qualifications and/or potential available.

Selection practices should therefore include: (a) the evaluation of candidates' past performance; (b) a comparison between job requirements (the necessary inputs) and each candidate's personal characteristics and potentials; and (c) a comparison of all candidates' past performance, inputs, and potentials.

It should be remembered, however, that outstanding performance in one job does not guarantee outstanding performance in another job. For example, the best workers do not always make the best leaders or supervisors. It should also be kept in mind that a person who is selected or promoted achieves greater personal satisfaction and status than those who are not selected or promoted. Such situations often breed interpersonal conflicts and subsequent breakdowns in communication and performance.

Training and Development Practices: Training and development are additional tools for assuring that even the most qualified personnel have high levels of all of the inputs required by job activities. Specialized knowledge and skills can be increased with fairly immediate results through formal and on-the-job training. On the other hand, mental abilities, interpersonal attitudes and behavior, problem-solving habits, and other behavior patterns must be developed (reinforced over a longer period of time) if they are to be permanently changed or improved.

These practices should include: (a) determination of the inputs required by each person's job, (b) evaluation of each individual's performance, (c) evaluation of each person's levels of all the required inputs, and (d) comparison of each individual's inputs with required inputs (to determine each one's training and development needs). If these steps are not taken, managers will not have the information necessary to provide the appropriate training and development for their personnel. Their personnel, therefore, will not be enabled to perform to their potential.

Natures of Tasks: These factors affect managerial styles and practices, one's level in the organization, and interpersonal activities, as well as other factors. Where most jobs in an organization are more mechanistic in nature, the organization itself tends to be mechanistic. Where most jobs are more organic in nature, the organization tends to be organic. We will have more to say about these relationships shortly.

Natures of People: People's abilities, specialized skills, and knowledge, for example, are greatly influenced by job requirements and organizational factors such as selection and training practices. On the other hand, their drives, values, interests, and personalities more or less

Table 3: Organizational Characteristics and Orientations — adapted from Lawrence and Lorsch (1963)

		Mechanistic		Organic
		Organization's or Unit's Orientation		
		Mechanistic		**Organic**
A.	Number of levels of authority	Many		Few
B.	Ratio of admin personnel to worker personnel	Low		High
C.	Natures of most tasks (jobs)	Mechanistic		Organic
D.	Quantity of formal policies, rules, procedures	Many		Few
E.	Degree of centralization in decision making	High		Low
F.	Managerial authority depends mostly upon:	Position		Expertise
G.	Contents of managerial communications	Instructions, decisions		Advice, information
H.	Interaction of unit with other units	Low		High
I.	Interaction of unit with outside environment	Low		High
J.	Level of unit in organization	Low		High
K.	Span of control at this level (number of manager's immediate subordinates)	Many		Few

Items A through G apply to entire organizations
Items C through K apply to organizational units or departments

come with them to the job. These characteristics, however, can also be influenced by selection, training, and development.

The question one must ask is, "Are individuals' natures compatible with the natures (or requirements) of their tasks?" If they are not, productivity and on-the-job satisfaction cannot be maximized.

Managerial/Leadership Styles and Practices

Like most of the factors already mentioned, this area can be broken down into more specific variables. Each of the following factors are directly influenced by the natures of personnel's tasks, the natures of personnel themselves, other organizational factors, and the natures of managers or leaders themselves. In turn, these factors influence people's productivity, social activities, the nature of the organization, and the natures of tasks.

Authority Base: If the basis of one's power or influence is his position, he is likely to lead. If, however, it is due to his subordinates' respect for his knowledge, expertise, and leadership traits, he is more likely to be followed.

Formality Toward Subordinates: Where a manager conducts her relations with subordinates on a formal basis, her formality may be due to her having an unsociable personality. Or it may be due to a need for discipline and respect for authority. Or it may be due to an organizational tradition of formality toward subordinates. Or it may be due to some combination of these and other factors. Whatever the underlying reasons its existence, formality can be appropriate in some situations but not in others. It is generally inappropriate in situations where jobs are highly organic and interpersonal relations must be conducive to information exchange and teamwork.

Nature of Communications: If communications to subordinates are mostly instructions and decisions, the manager's or leader's style tends to be more authoritarian or directive. If communications to subordinates are mostly advice and information, the manager's or leader's style tends to be more participive.

Degree of Control: If an individual exercises very tight control over his unit, he constantly plans, directs, and coordinates his subordinates' activities and he closely monitors, evaluates, and follows up on their performance. Such a person would be considered an authoritarian. If, on the other hand, he exercises very little control, he is apt to be considered permissive. Neither extreme is appropriate in most situations, because neither maximizes people's productivity, satisfaction, and development all at the same time.

Specificity of Responsibilities and Authority: Some delineation of people's responsibilities and authority is necessary in order to coordinate tasks and people effectively. It also precludes conflicts that arise when one person encroaches on the "territory" of another—either knowingly or unknowingly. The issue here is the degree of specificity that is appropriate.

Since mechanistic jobs can be defined more precisely than organic types of jobs, managers and leaders are more likely to define them in very specific terms. However, if subordinates' responsibilities and authority are too specifically delineated, they may be precluded from further developing themselves and their jobs on their own initiative.

Conflict Resolution: Very authoritarian managers and leaders tend to ignore, smother, and deny interpersonal conflicts through their own policies, rules, and actions. In these cases, conflict generally remains even though it has been repressed. On the other hand, when managers or leaders establish an atmosphere in which conflicts are confronted and resolved, conflicts can be dealt with constructively. Even though conflicts can still arise, they are less likely to become permanent barriers to effective interpersonal relationships and communication. This is important in organic types of jobs where efficient information flow is essential.

Participation of Subordinates in: Goal Setting and Planning: When subordinates participate in formulating output goals for themselves and their units, they not only become more committed to those goals, but they also acquire information that enables them to be more self-directing.

Likewise, their participation in planning processes contributes to greater commitment to programs and schedules. Since planning processes deal with the coordination of people's activities, personnel also acquire information that enables them to be more self-coordinating.

Thus, participation in these integrative processes enables personnel to be less dependent upon higher level direction and coordination (which frees a manager to do more long-term planning, for example). In addition, subordinates' input to these processes can improve the quality of goals and plans and the effectiveness and efficiency with which they are implemented.

Problem-Solving and Decision-Making: The quality of solutions and decisions can be increased when subordinates have an opportunity to contribute their knowledge and experience. In addition, since they have participated in formulating solutions and decisions, they tend to accept them more readily and to implement them more effectively.

Development of Methods and Procedures: If methods and procedures are prescribed for subordinates, their understanding and acceptance of them are usually not as great as they would be if they had participated in their formulation.

Subordinates' participation in these managerial activities is generally greater at levels of the organization where tasks are more organic than mechanistic. At worker levels there is usually less participation, since goals, plans, decisions, solutions, methods, and procedures are more often formulated and prescribed by higher managerial, leadership, or administrative levels. However, when lower level personnel are allowed to participate in these activities, not only are their productivity and satisfaction improved, but their personal development is also enhanced. Experience in accomplishing managerial activities prepares lower level personnel for supervisory, leadership, and managerial jobs.

Assumptions/Facts Concerning Subordinates: If subordinates are regarded either rightly or wrongly as being lazy, incapable, rather stupid, and preferring to be led, leaders and managers are more likely to: (a) use position-based authority, (b) behave formally toward subordinates, (c) communicate instructions and decisions, (d) be directive and controlling, (e) very clearly specify objectives, responsibilities, and authority, (f) smother interpersonal conflict, and (g) deny subordinates' participation in managerial activities.

On the other hand, if personnel are perceived as relatively bright, motivated, ambitious, and capable, managerial and leadership styles and practices are more likely to be less directive and more participative.

Degree of Task Orientation: A manager's, leader's, or organization's task orientation reflects the concern for performance and results (productivity).

Degree of People Orientation: The people orientation reflects the manager's, leader's, or organization's concern for people's feelings, the satisfaction of their needs, goals, and expectations, and their development as individuals.

Where performance is emphasized at the expense of people, their on-the-job satisfaction (and therefore motivation) cannot be maximized. Where people are emphasized at the expense of results, their productivity cannot be maximized. Task and people orientations should there

Table 4: Unit or Departmental Characteristics and Structures in Relation to Tasks and People

FACTORS OR CHARACTERISTICS	Production Workers	Clerical and Bookkeeping	Sales Personnel	Research Personnel	Marketing, Finance, & Production Management Personnel
Task Characteristics					
Complexity	Simple	Simple	Medium complexity	Complex	Complex
Variability	Routine	Routine	Routine to varying	Varying	Varying
Specificity of job description	Clearly definable	Clearly definable	Definable	Ambiguous	Ambiguous
Time span to outputs/results	Immediate output	Immediate results	Short to medium term	Long-term results	Delayed results
Tangibility of output/results	High tangibility	Medium tangibility	Medium tangibility	Low tangibility	Low tangibility
Measurability of output/results	High measurability	Medium measurability	Medium measurability	Low measurability	Low measurability
Ease of evaluating output/results	Easily evaluated	Medium ease	Medium ease	Difficult	Difficult
Interaction with other units	Low interaction	Medium interaction	Medium interaction	Medium interaction	High interaction
Environmental orientation	Plant	Office	Markets	Science	Market and other
Interaction with outside	Low interaction	Low interaction	High interaction	High interaction	High interaction
Amount of change in job	Low change	Low change	Medium change	High change	High change
Certainty of information used	Certain info	Certain info	Uncertain info	Uncertain info	Uncertain info
Skill orientation of job	Manual, physical	Clerical	Social, persuasive	Mental	Mental
Education required	Average or below	Average	Average	Advanced	Above avg to advanced
General Nature of Tasks	**Mechanistic**	**Mostly Mechanistic**	**Between Mechanistic and Organic**	**Organic**	**Organic**
Personnel Orientations					
Formality in Unit Structure	High Formality	Medium formality	Medium Formality	Low Formality	Low to medium formality
Orientation Toward Co-Workers	Fairly Directive	Permissive to directive	Permissive	Permissive	Permissive
Authority Derived from:	Position	Position	Position	Expertise	Expertise / Position
Status in Organization	Low status	Medium to low status	Medium status	High status	High status
Organizational Structure Likely:	**Mechanistic**	**Fairly mechanistic**	**Between mechanistic and organic**	**Organic**	**Organic**
Managerial Style Likely:	**Directive and controlling**	**More directive than participative or permissive**	**Between directive and permissive**	**Participative or permissive**	**Participative**

fore both be high in order to maximize productivity, satisfaction, and development.

General Natures of Organizations

In discussing task or technological factors we said that tasks (and jobs) can be more mechanistic, more organic, or somewhere in between. This same frame of reference can be applied to organizations and their units or departments. Most organizations are neither completely mechanistic nor completely organic, but, rather, are somewhere between the two extremes. Their units or departments, however, can be more mechanistic or more organic. **Table 3** on page 16 lists some of the usual relationships among the natures of tasks, the natures of organizations and their units, and various organizational factors. (This is a description of the way things generally are, and not necessarily the way that they perhaps ought to be.)

Table 4 is a combination of Tables 2 and 3, and illustrates additional relationships among natures of tasks, people, and organizational units in industrial organizations. (Again, this table reflects the way things generally are, and not necessarily the way they can and perhaps should be.)

All of the variables we have been discussing operate in any organization. They could just as easily be used to describe units in military organizations, hospitals, service organizations, and so on. However, the actual characteristics that correspond to these factors do vary from organization to organization and from unit to unit.

The following general observations are based upon these tables and the preceding discussions. Although they apply to most organizations, there may be some slight variations within particular organizations.

Second, the organizational structure tends to be more or-ganic, and the management orientation more participative, when the natures of the tasks involved are more organic.

Second, the organizational structure tends to be more mechanistic, and the managerial orientation more directive and controlling, when the natures of tasks involved are more mechanistic.

Third, personnel are more likely to work in an organic structure if they: are well educated; integrate a variety of tasks; are in managerial or administrative roles; are self-motivating and directing: participate in goal setting, planning, problem solving, and decision making; accomplish

mentally-oriented jobs: derive status and authority from knowledge and expertise rather than from their position; and must deal with high uncertainty and change.

Fourth, large organizations tend to be more mechanistic in structure and more directive in their managerial orientation at lower levels of the organization (which is not necessarily to their benefit). Production workers are the best examples of those who work in such an atmosphere. Clerical personnel tend to work in a slightly less mechanistic and directive atmosphere. On the other hand. large organizations tend to be more organic in structure and more permissive and participative in their managerial orientation at higher levels in the organization—management or administrative levels. The greatest amount of organizational integration takes place at these levels.

Fifth, organizational structures and managerial or leadership orientations are influenced to a great extent by natures of tasks and the people accomplishing them.

Tables 2, 3, and 4 also indicate major causes of conflicts that arise between individuals in separate units. These causes are the differences between task orientations, people, and structures in the units involved. The differences may exist in terms of such factors as: the time span to outputs or results; the measurability of people's outputs or results; the certainty of informational inputs used; the amount of change experienced on the job; the skill orientations of jobs; people's educational levels; people's status in the organization; the formality existing within unit structures; and other factors that appear in Tables 2, 3, and 4.

The research of Lawrence and Lorsch (1967) led them to conclude that the greater the differences between two units in terms of the above factors, the more conflict that will tend to exist between the units and the greater the difficulty they will have in integrating their activities.

A few examples of these factors in operation could include: A salesperson not being able to get a rush order through the plant because a production manager is concerned about incurring the costs of setting up operations to produce the ordered parts. A senior accountant resenting the salary and status of a research scientist. A well-educated training instructor not being able to communicate with less-educated production workers. Or a production supervisor not understanding why a research and development manager does not "crack the whip" on his personnel to get a new process perfected. Especially when these and other results of differences between groups are not understood by the parties involved, interpersonal and interdepartmental conflicts are almost certain to arise and remain unresolved.

Social Inputs

The formation of social groups, the relationships existing within them, how they maintain themselves, and how they influence organizational behavior are all highly complex subjects. The following is a capsule discussion of the influences on group behavior and how it in turn affects organizational behavior.

Group Formation

Task, organizational, and individual factors that influence the formation of social groups include:

Interdependence of Tasks: When tasks are interdependent, contacts of some sort are necessary between the tasks. These contacts afford opportunities for interpersonal interactions, which can develop into friendships and group relationships.

Proximity and Work Flow: When people work in close proximity to each other, either because of work space layout or work flow, opportunities exist for direct person-to-person communication. Interpersonal communication can involve speech, a gesture, or a facial expression.

Frequency of Interaction: The frequency of interpersonal contacts is influenced by people's proximity and the number of contacts required by job interdependencies. Frequency of contact can affect whether or not friendships or groups will form and also how quickly they will form.

Job interdependencies and people's proximity are the vehicles that enable social interactions. However, the vehicles are not enough for friendships or groups to form. People must also be motivated to interact on a social basis.

People's Needs and Drives: Socially-oriented groups form to provide fulfillment of the need to affiliate with others and the need to belong. These are basic social drives.

People are also motivated toward group relationships in order to reinforce their self-image. Since individuals are who they are relative to other individuals, their interaction with social groups enables them to describe themselves and others and then to compare themselves with others. Thus, groups represent vehicles for establishing and further developing a personal identity.

How a group perceives an individual's characteristics will partially affect his or her status within the group Thus. an individual can derive a feeling of importance through membership in a group.

If the group demonstrates its acceptance of a person. their positive reactions tend to reinforce her self-image. This is ego-serving. An individual does not ordinarily seek membership in a group unless she more or less expects to derive an identitv and status that is fairly compatible with her own self-image.

Some people strive to be "a big fish in a small pond." In this case they seek relatively high status in the group. On the other hand, some persons settle for being a "small fish in a big pond." Although in this case status may be relatively low within the group, the individual may be trying to identify himself with those whom he regards as superior in some respect. This can be just as egoserving.

Social groups also provide a certain security. Once established in a group, a person need not approach new groups of people with the fear of not being accepted. Put another way, she does not have to continue experiencing the anxiety that accompanies conflicting drives to approach and avoid.

Another consideration is that groups afford opportunities to influence or to assert oneself over others. The underlying motives being fulfilled in this instance are likely to be the need for power (related to the political value) and the reinforcement of one's self-image.

Groups also increase their members' abilities to control or influence their environment. "United we stand, divided we fall" is the old saying that applies here.

Some persons join social groups in order to develop their social skills. In doing so, they may be motivated by the need for self-actualization. (Regardless of whether or not this is the motivation, membership in a social group does tend to contribute to the development of the interpersonal knowledge and abilities involved in such activities as understanding and judging social behavior, communicating with others, and resolving interpersonal conflicts.)

Members' Characteristics: All group members have different levels of various characteristics: drives, abilities, skills, values, physical traits, interests, personality traits, knowledge, experience, goals, expectations, beliefs, and biases. All of these characteristics influence members' acceptance, status, and roles within the group.

Valued, Shared Characteristics: People normally gravitate toward groups with whom they share (or think they share) characteristics more or less valued by both. These characteristics can have various orientations: intel-

lectual (e.g., literary clubs or discussion groups), physical (e.g., an "in crowd" of physically attractive people, athletic persons, or even "tough guys"), values (e.g., altruists, religious persons, or "social climbers"), personality (e.g., a "bunch of good guys" or a "fun-loving group"), interests (e.g., occupation, golf, boating, bridge, etc.).

Whereas groups tend to value certain shared traits more than others, one would expect to find some combination of characteristics that is more or less shared by all group members.

Relationships Within the Group

Group Norms: These are attitudes and beliefs regarding what members should or should not do under various circumstances. They can include values, goals, customary modes of behavior, formal and informal rules, and social procedures. For example, a common middle management group norm is to withhold bad news from one's superiors. In some management level groups the norm is, "If you've got power, don't flaunt it," whereas in other groups it might be, "If you've got the power, flaunt it." In many groups it is the norm to "act masculine and hide your feelings," whereas in other groups it is to "be sensitive to others and express your feelings."

Members' Status: A person's status within the group is largely a function of his levels of the characteristics most valued by the group. It can also be due to how consistently he adheres to the group's norms. Members who possess higher levels of valued characteristics and adhere more consistently to group norms tend to have a higher status. The reverse tends to be true of members who have relatively low status.

Members' Roles: Status in a group generally carries with it a role—and there are many roles that can be played.

Those who function to implement and maintain the group's norms, and who usually possess high levels of the group's valued characteristics, tend to be group leaders. The *task leader*, for example, is the member who reinforces group goals, exhorts the group to accomplish work-oriented activities, and provides direction and coordination during task-oriented activities. She is likely to be followed because of her high degree of expertise in work-related matters. The *social leader* is the member who encourages social interaction within the group, fosters the morale and "esprit" of the group, and often reduces ten-

sions by shifting members' attention away from conflict to more friendly activity. He is likely to be followed in social matters because of a highly sociable personality. (The task leader and the social leader may or may not be the same individual.) These individuals can occasionally break group norms because of their very high status.

The role of an *arbitrator* is to reduce tensions arising from interpersonal conflicts by mediating between the parties involved in order to help them resolve their differences. This role may be performed by the task leader when task-related interpersonal conflicts are involved. It may be performed by the social leader when conflicts arise during more socially-oriented group activities.

Many groups have a *clown or entertainer*. Inasmuch as he can generate laughter within the group, he can also perform the function of a tension reducer.

Those members who have friends outside of the group can be *inter-unit contacts* between the group and other groups to which their friends belong.

And there are the *followers*. They confer status upon and receive status from others in the group. Because their status is not as high as those mentioned above, they are less inclined to violate the group's norms and customs. (However, a new-comer to the group who has relatively low status may have little to lose by breaking the group's norms.)

Group Maintenance

Because membership in a group fulfills important social and self-image needs, groups tend to maintain and perpetuate themselves for the benefit of all members. The following are some of the means they use to do so.

Norms and Sanctions: Norms (rules and customs) develop within groups in order to foster solidarity, morale, and order among members. Groups maintain adherence to their norms through members' use of rewarding and penalizing sanctions.

Positive sanctions reward conformity to group norms. They include praise, the acknowledgement of status, increased status, a "pat on the back," the expression of acceptance or approval, and other verbal or physical forms of positive feedback.

Negative sanctions are used to enforce norms by punishing behavior that is detrimental to the group. Those who deviate from group norms can expect various forms of negative feedback such as: having approval or security withdrawn; being reduced in status; being the subject of

sarcastic remarks and criticism; and being ignored, avoided, rejected, or completely ostracized from the group.

Enforcement of group norms and customs is made easier by close physical proximity of group members, which enables them to communicate various sanctions through words, gestures, and facial expressions. It is strengthened by job interdependencies and by common wages, benefits, problems, and status within the organization.

Conflict Resolution: To maintain internal stability, groups must deal with interpersonal conflicts that can be caused, for example, by differences between members' tasks or differences between members' personalities, beliefs, and attitudes.

Group norms and sanctions can influence whether or not conflicts will surface and how they will be confronted if they do. For example, it may be customary for members of the group to exercise sanctions such as overt disapproval of the members involved until they resolve their problem.

Resolution can also be facilitated by group members exercising their tension-reducing roles. For example, the social leader could initiate other members' use of the sanctions mentioned above. Or the arbitrator could act as a "go-between" in order to bring about a compromise. Or the group "clown" could make the situation seem laughable and rather pointless.

Image Reinforcement: Groups also maintain cohesion by comparing themselves with other groups. It is not unusual to hear such comments as, "Oh, they _____ all the time, but we wouldn't think of doing that," or "We can _____ better than they can," or, "Look at what those characters are doing now." This is a simple device. By putting others down, we put ourselves up. It is a matter of self-image reinforcement, which is an element of human nature.

Competition between groups can also reinforce both internal solidarity and the group's status in the eyes of other groups—especially when the group wins.

Membership: As a rule, social groups are more inclined to accept into their ranks those persons who share valued characteristics and can contribute to the group's image or status vis-a-vis other groups.

The issue of a prospective member's admittance into a group often generates conflict within the group. If the individual has excellent qualifications, members who have high status in the group might want to admit him because he would add to the status of the entire group, but might not want to admit him because their relatively high status in the group could be diminished. Members who have relatively low status might want to admit him because the entire group's status would be increased, but might not want to admit him because their already low status could be further reduced. (If the prospective member has relatively low qualifications, the motives of high and low status members could be reversed.)

Whether or not a newcomer is accepted into a group is a matter of who stands to gain the most, who stands to lose the most, who can exercise the most influence on the rest of the group, the group's norms, and the interactions that take place within the group during the decision-making process.

Groups also maintain themselves by expelling those from the group who consistently break group norms, jeopardize the group's status vis-avis other groups, or behave in any other manner that would undermine order and cohesion within the group.

Influence on the Organization

Organizations can be affected by internal social groups in many ways. If, for example, members of a particular group value hard work and personal achievement, these norms will be enforced and the individuals' productivity will be high—which benefits the organization. If, however, the norms of a particular social group are to "do just enough to get by," or that "nobody should upset the apple cart by out-performing the rest of the group so that performance standards are raised," and if the group enforces these norms with rewarding and punishing sanctions, organizational productivity cannot be maximized.

How much influence a group can exercise over its members, other groups, and the organization as a whole depends upon many factors, some of which include: members' positions and status in the organization; the collective status of group members; the group's status vis-a-vis other groups; the size of the group; and the positions or status of individuals in the organization with whom the group may conflict.

Influence can be exerted through organizational sanctions or through social sanctions (as above). Whereas an organization's policies, rules, and procedures generally influence people's behavior very heavily, social norms and sanctions can be more potent influences on organizational behavior.

By understanding a group's norms and by being able to assess interpersonal activity within the group, a manager

or leader can better judge and respond to social behavior. By also identifying those who have status and influence in the group, he can better influence a group's behavior.

Outside or Environmental Inputs

An organization is a system operating within an even larger system—the outside environment. Tasks, individuals, social groups, and organizational factors are all influenced to a greater or lesser degree by many environmental factors. The following are some of these factors and some of the ways they can affect organizational behavior.

Business-Oriented Factors

Customers: Customers' attitudes and behavior directly affect the behavior of personnel in sales and marketing functions who come into direct personal contact with customers. When interpersonal relationships are effective and sales are good, productivity and morale are usually high. Inasmuch as sales affect production and accounting functions, people in these areas are influenced by customers' behavior more indirectly.

Suppliers: Personnel in purchasing functions come into more direct contact with suppliers and are therefore more directly affected by their behavior. The behavior within other functional areas is influenced more indirectly by outside suppliers (e.g., through interpersonal contact with purchasing personnel or through the availability ol purchased supplies and materials).

Competitors: Even though there may be no interpersonal contact between personnel of the organization and its competitors, the behavior of competitors directly affects the behavior of managers and personnel in all functional areas—either directly or indirectly.

Industry, Service, and Other Associations: Managerial or administrative personnel can be directly influenced by relationships with other leaders, managers, or administrators in the same type of work. Associations themselves provide useful information and services to member organizations.

Worker Associations/Unions: The behavior of union personnel directly influences the behavior of union and non-union personnel in production areas, for example.

Since the behavior of unionized personnel affects the organization, personnel in other functional areas can also be affected (e.g., payroll personnel directly, sales personnel indirectly).

Institutions

Government: Laws and government agencies can affect most tasks both directly and indirectly. Legislation dealing with safety precautions can directly affect the behavior of production personnel. Consumer-oriented legislation can restrict certain advertising practices. Antitrust laws restrict certain kinds of behavior. Government agencies can provide services, information, funding, enforcement of legislation, and protection. Government's many units at many levels affect individuals' and organizations' behavior in countless ways.

Religions: People's religious affiliations directly affect their value systems, ethics, and morals. These, in turn, directly affect their on-the-job performance and interpersonal relationships.

Capital Markets: Financial institutions are sources of funds that are basic resources for keeping all functional units in operation.

International Institutions: International politics, law, economics, markets, customs, and other such factors can all affect most organizational units both directly and indirectly.

People-Oriented Factors

Families: Husbands, wives, parents, children, and other relatives can all influence an individual's interests, morale, goals, values, abilities, and personalities, for example. Of all environmental factors, the family is perhaps the most important influence on the behavior patterns and attitudes that a person brings with her to the job.

Peers: One's friends and acquaintances also influence his attitudes and behavior patterns directly. If peers' values, goals, and interests are not compatible with organizational objectives and policies, the individual may find himself under pressures that reduce his productivity and job satisfaction.

General Public: Public opinion or sentiment concerning the organization can influence the individual's attitudes toward the organization either positively or negatively. Public opinion also affects legislation, which in turn can affect operations and personnel's behavior.

Community: Organizations and their personnel are directly influenced by local laws, customs, government agencies, public services and facilities, job markets, schools, and so forth.

Social Norms and Customs: Social norms and customs influence individuals' beliefs, values, ethics, morals, and biases, which all affect persons' behavior on the job. When they are compatible with organizational policies and objectives, they become forces that can positively affect people's performance.

Interest Groups: Interest groups represent various, often opposing segments of the general public. Some agitate for change while others press for maintenance of the status quo. When either the organization or its personnel are caught in the middle of opposing forces, and personnel are obliged to take sides on an issue, conflict can easily develop within an organization.

Other Factors

Technology: Technology directly affects job descriptions, organizational structures and procedures, equipment utilized, managerial styles, informational and material inputs, and so on. It indirectly affects the natures of people in the organization through the natures of their tasks. In turn, the natures of people and their tasks influence productivity and interpersonal relationships.

Economics: Business fluctuations, for example, affect job markets, prices, wages and salaries, supply, demand, and the availability of money. These factors, in turn, influence individuals' job security, pocketbooks, attitudes, and performance on the job.

Nature: Weather, scenery, and so forth can affect people's morale and performance. Energy and raw materials directly affect productivity.

Transportation Facilities: These factors can affect individuals directly in terms of their being able to get to their jobs. They can affect organizations in terms of their receipts of material inputs and shipments of products.

SUMMARY

Task, individual, organizational, social, and environmental variablcs discussed above are some of the main factors that influence behavior in organizations. Whereas these factors can be found operating in any organization, the facts that correspond to each factor will differ from organization to organization.

As indicated earlier in **Figure 1**, each group of factors influences the others. The interactions among these inputs result in people's activities, interactions, and attitudes, which may or may not affect their productivity, satisfaction, and development appropriately.

These are some questions that leaders and managers should ask themselves: Are productivity, satisfaction, and development what they could be? (What is going on that can be observed?) In turn, what relationships among task, individual, organizational, social, and environmental factors could be the underlying causes? (What is happening in the chain of causes and effects that is more difficult to observe?) We have emphasized "causes" because no one variable or input can be a single cause, since all factors are interrelated and operate together as a system, each influencing the others.

These frames of reference, presented in the abbreviated checklist on page 2, are not specific answers to managers' and leaders' specific problems. However, the various factors are the things to consider or the "ducks to line up" when approaching problems in organizational behavior. Thus, they are analytic tools for better understanding what is going on in an organization and why, for managing underlying causes of behavior that cannot be easily seen, and for detecting previously unrecognized problems.

Perhaps even more important than being a problem-solving model, the Socio-Technical System is an improvement model. Since none of the factors in the system are perfect, each can be improved—and the relationships among the factors can be improved. Therefore, the checklist can be used as a tool—a reminder—to determine those things that can or should be improved both on a long-term and short-term basis.

The Appendix to this segment is a brief illustration of how a system of some of the factors discussed above might revolve around an individual to influence his (or her) and others' behavior.

APPENDIX

A Hypothetical Illustration of Influences on Behavior

Joe is a hypothetical man in a typical organization. He had been working on the same level as Art and Bill, and in much the same type of job. But recently he was promoted to head of his department. Now he supervises Art and Bill. Although Joe's performance in his old job was outstanding. he himself has quickly realized that his new unit is not functioning as well as it should be. There has been a fairly slight decline in productivity.

Joe began to assess the situation. He recognized that he himself was the new change in the system, so he started by looking at the influences on his own behavior and how he in turn might he affecting Art and Bill.

His old job activities had been more oriented to technical work. Now, having been raised to the next higher level in the structure, his job activities were mostly managerial. Because he now plans, organizes, directs, coordinates, and reports to a higher level, his job has become more organic. Even the atmosphere at his new level seems to be more organic.

Joe asked himself whether or not he had the characteristics necessary for his new job. Was he really familiar enough with Art's and Bill's jobs to coordinate them effectively? Yes. Since their jobs had been similar, he knew what both men should be doing and how much he could expect from them. His boss had each of them switch jobs or fill in for each other when one of them was absent. And, thought Joe, he had even received additional training before stepping into the new job. So, as far as Joe could determine, the technical aspects of his job were no problem.

Then what about his managerial capabilities? As he thought about these factors, Joe counted himself lucky. His old boss (still his boss because he, too, had been promoted) had encouraged him to participate in goal setting, planning, budgeting, problem solving, and decision making. And he had seen to it that Joe attended the organization's training seminars on managerial processes. Furthermore, Joe had been trying to absorb all he could about management. So he concluded that he either had, or was quickly acquiring, the skills for being a good manager.

Could the situation be due to a lack of motivation on his part, then? No, he thought, he was very highly achievement-oriented and ambitious.

His goals and expectations were high partially because he wanted to give his family the very best he could—even put the kids through college when the time came. And he saw himself as thoughtful but practical. His value system motivated him to be responsible on the job and in his relationships with his co-workers. Also, his ethical and moral standards had been shaped in earlier and more recent years through his church involvement and the influence of his own parents.

If his own behavior did not underlie the situation, then whose did? Was perhaps his boss's managerial style inappropriate for maximizing productivity, satisfaction, and development in the unit? Inasmuch as he had also been oriented to some of the new managerial practices and attitudes, this fortunately did not seem to be the case. Then was his job suffering because the boss was not giving him all the informational input he needed? He had to conclude that this was not the case either.

Then what about Art and Bill? Both were exceptionally well trained and competent, and knew how to interface with their boss. Were they getting the material and informational inputs they needed to perform their jobs efficiently? Joe knew that he made the information they needed from him readily available. He decided to find out whether or not they were getting the input they needed from other departments. He checked. Apparently they were not. The accountmg department had been late getting them some computer printouts in the last few weeks. He would have to make a point of getting together with the people in accounting to see what could be done.

Joe could have figured that this would remedy the situation, but he thought that there might be more to it. Why, for example, hadn't Art or Bill let him know that they had a problem with informational input? The more he thought about it, the more he began to realize that Art was not affected by the information lag, but Bill was. Why, he asked himself, hadn't Bill been motivated to tell him? Joe began to think back over the circumstances surrounding his promotion. Perhaps it had in some way affected Bill's attitude toward him or his own job.

When he was promoted, Joe moved into an office in the same area with his boss. Chuck and Dave also officed in the same area. In fact, Joe's job as department head brought him into frequent contact with Chuck and Dave since they were heads of related departments. Because they were close together, and because their jobs were interdependent and very much alike in terms of managerial activities, they had all become friends.

Due to the organic natures of their jobs, there was little formality in the group. Joe found it easy to relate with his boss, Chuck, and Dave. They were all on a first name basis, which appeared to Joe to be a norm of the group. Thinking more about the group's norms, Joe realized that

somewhat different behavior was now expected of him. He noticed that he had begun to talk in management terms and use language that he had not used when working with Art and Bill. This must be, he thought, the influence of Chuck and Dave, who were senior to him, were a little better educated than Art and Bill, and were interested in more culturally-oriented topics of conversation. Because these new friends were interesting, and because their acceptance of him had boosted his own status and self-image, Joe recognized that he had begun to drift away from Art and Bill socially.

Joe was certain that Art, and especially Bill, had sensed this change. Not that he was stuffy because he was now in a managerial position over them. His personality was still the same, and he still cared about Art and Bill as friends. But Joe recognized that he was no longer "one of the guys." He was their boss now. Did they resent his getting the job or that he had gravitated toward a new group of friends?

Joe recalled a conversation with Art, who had said that Bill really wanted the job as head of the department. But Art added that he thought Joe deserved it more, because he had worked harder to prepare himself for it. Art had also mentioned that Bill didn't seem to resent Joe's getting the job, but that he might be having a hard time admitting to himself that not getting the job was more his own fault than the boss's or Joe's.

The situation was becoming clear to Joe. Bill's self-image had been damaged and his feelings were hurt. And because Joe had become involved with new friends. Bill probably felt that Joe had forsaken him as a friend.

Joe's dilemma is not unique. Many of those who are promoted into managerial jobs over their co-workers experience much the same situation.

Many alternative courses of action went through Joe's mind. He could ask the boss to discuss informally with Bill why he had not been promoted. Or he could ask Art to talk to Bill, since Bill had always looked up to him as the informal leader of their group. Joe dismissed these ideas. Bill's feelings did not have to be thrown up in his face. That would only make things worse. And besides, it was his responsibility, not Art's or the boss's, to resolve the situation.

After further consideration, Joe decided to do several things. First, at the earliest opportunity he would review the unit's objectives and plans with Art and Bill together. He would not aim any special comments at Bill, but he would make a point of emphasizing each one's role on the team and the fact that each had much to contribute in terms of their own capabilities. He would also make a point of reviewing with both men the informational inputs that the three needed from each other. He was determined to build a rapport with both Art and Bill that would encourage them to put their heads together with his whenever any of them could give or get help from the others.

Next, he would meet with Art and Bill separately to discuss their individual job objectives, activities, and the necessary inputs. He would ask Bill outright what his ambitions in the organization were and how he could help him achieve these objectives. He hoped that this would get Bill thinking about how hard he had worked to get the job he had wanted and what he would have to do to prepare hiniself for it when Joe was ready to move again and be replaced.

He would try these alternatives first, and later reconsider what to do if they didn't work out.

In the meantime, Joe planned to talk to his boss, not about Bill in particular, but the whole situation in general. He thought that he had not really been prepared to deal with this type of situation, and that it might be a good idea to bring it up in the organization's management training sessions.

Finally, Joe looked again at himself. Perhaps he had been enjoying his new status and friends at the expense of his subordinates. Maybe a little less time socializing in the office would allow him to meet his responsibilities to his new teammates. He resolved to strike a better balance between his horizontal and vertical relationships in the organization.

Joe's solutions are not *the* solutions. There are no textbook solutions when one is dealing with human behavior. In fact, if Joe had considered other factors not mentioned in this very brief illustration, he could very well have arrived at somewhat different courses of action. But he did consider many factors. Some dealt with people's tasks, the inputs required, and the interfaces with other tasks. Others dealt with people's characteristics—in terms of their capabilities and motivational attitudes. Yet others called to his attention specific organizational, social, and environmental influences on several persons' behavior. Because he had learned to look at what was going on in the organization as a system of influences, perhaps he had been even better prepared to manage than he realized.

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