Managing Careers: The Influence of Job
and Group Longevities*

Ralph Katz
WP# 1151-80   October, 1980

MANAGING CAREERS: THE INFLUENCE OF JOB AND GROUP LONGEVITIES

Ralph Katz, Massachusetts Institute of Technology

INTRODUCTION

Any serious consideration of organizational careers must eventually explore the dynamics through which the concerns, abilities, and experiences of individual employees combine and mesh with the demands and requirements of their employing work environments. How do employees' needs for security, equitable rewards, and opportunities for advancement and self-development, for example, interact with the needs of organizations for ensured profitability, flexibility, and innovativeness? More importantly, how should they interact so that both prescription sets are filled satisfactorily?

Further complexity is added to this "matching" process with the realization that interactions between individuals and organizations are not temporally invariant but can shift significantly throughout workers' jobs, careers, and life-cycles. As employees pass from one phase in their work lives to the next, different concerns and issues are emphasized; and the particular perspectives that result produce different behavioral and attitudinal combinations within their job settings. Over time, therefore, employees are continuously revising and adjusting their perspectives toward their organizations and their roles in them. And it is the perspective that one has formulated at a particular point in time that gives meaning and direction to one's work and to one's career.

Because the effectiveness of a given organizational unit ultimately depends on the combined actions and performances of its membership, we must begin to examine more systematically the impact of such varying

perspectives on the predilections of unit members for particular kinds of activities, interactions, and collective judgements. Clearly, a better understanding of the substantive nature of such dispositions and behavioral tendencies will help clarify accommodation procesess between organizations and individuals so that eventual problems can be dealt with to their mutual benefits. To accomplish such objectives, however, we need to develop more process oriented frameworks for analyzing the diverse kinds of concerns and associated behaviors that tend to preoccupy and characterize employees as they proceed through their respective jobs, project groups, and organizational careers.

A Model of Job Longevity

Based on some recent findings in the areas of job satisfaction and task redesign, Katz (1980) has been working to develop a more general theory for describing how employees' perspectives unfold and change as they journey through their own discrete sequences of job situations. In particular, a three-transitional stage model of job longevity has been proposed to illustrate how certain kinds of concerns might change in importance according to the actual length of time an employee has been working in a given job position. Generally speaking, each time an employee is assigned to a new job position within an organization, either as a recent recruit or through transfer or promotion, the individual enters a relatively brief but nevertheless important "socialization" period. With increasing familiarity about his or her new job environment, however, the employee soon passes from socialization into the "innovation" stage which, in turn, slowly shifts

into a "stabilization" state as the individual gradually adapts to extensive job longevity, i.e., as the employee continues to work in the same overall job for an extended period of time. Table 1 summarizes the sequential nature of these three stages by comparing some of the different kinds of issues affecting employees as they cycle through their various job positions.[1]

Insert Table 1 About Here

Socialization

As outlined under the initial socialization stage, employees entering new job positions are primarily concerned with reality construction, building more realistic understandings of their unfamiliar social and task environments. In formulating their new perspectives, they are busily absorbed with problems of establishing and clarifying their own situational roles and identities and with learning all of the attitudes and behaviors that are appropriate and expected within their new job settings. Estranged from their previous work environments and supporting relationships, newcomers must construct situational definitions that allow them to understand and interpret the myriad of experiences associated with their new organizational memberships. They need, for example, to learn the customary norms of behavior, decipher how reward systems actually operate, discover supervisory expectations, and more generally how to function meaningfully within their multiple

group contexts (Schein, 1978). Through information communicated by their new "significant others," newcomers learn to develop perceptions of their own roles and skills that are both supported within their new surroundings and which permit them to organize their activities and interactions in a meaningful fashion. As pointed out by Hughes (1958) in his discussion of "reality shock," when new employees suddenly discover that their somewhat "overglorified" work-related expectations are neither realistic nor mutually shared by their boss or co-workers, they are likely to feel disenchanted and will experience considerable pressure to either redefine more compatible expectations or terminate from their work settings.

The importance of such a "breaking-in" period has long been recognized in discussions of how social processes affect recent organizational hires trying to make sense out of their newfound work experiences. What is also important to recognize is that veteran employees must also relocate or "resocialize" themselves following their displacements into new job positions within their same organizations (Wheeler, 1966). Just as organizational newcomers have to define and interpret their new territorial domains, veteran employees must also restructure and reformulate perceptions regarding their new social and task realities.[2] As they assume new organizational positions and enter important new relationships, veterans must learn to integrate their new perceptions and experiences with prior organizational knowledge in order to develop fresh situational perspectives, including perceptions about their own self-images and their images of other organizational members.

Such perceptual revisions are typically necessary simply because work groups and other organizational subunits are often highly

differentiated with respect to their idiosyncratic sets of norms, beliefs, perceptions, time perspectives, shared language schemes, goal orientations, etc. (Lawrence and Lorsch, 1967). As communications and interactions within an organizational subunit continue to take place or intensify, it is likely that a more common set of understandings about the subunit and its environment will develop through informational social influence. Such shared meanings and awarenesses not only provide the subunit's members with a sense of belonging and identity but will also demarcate the subunit from other organizational entities (Pfeffer, 1980). Consequently, as one shifts job positions and moves within the organization, one is likely to encounter and become part of a new set of groups with their correspondingly different belief systems and perspectives about themselves, their operations, and their operating environments. It is in this initial socialization period, therefore, that organizational employees, and newcomers in particular, learn not only the technical requirements of their new job assignments but also the interpersonal behaviors and social attitudes that are acceptable and necessary for becoming a true contributing member.

Since employees in the midst of socialization are strongly motivated to reduce ambiguity by creating order out of their somewhat vague and unfamiliar surroundings, it becomes clear why a number of researchers have discovered organizational newcomers being especially concerned with psychological safety and security and with clarifying their new situational identities (Kahn, Wolfe, Quinn, and Snoek, 1964; Hall and Nougaim, 1968). In a similar vein, Schein (1971) suggests that to become accepted and to prove one's competence represent two major problems that newcomers and veterans must face before they can function

comfortably within their new job positions. It is these kinds of
concerns that help to explain why Katz (1978a) discovered that during
the initial months of their new job positions employees are not
completely ready to respond positively to all the challenging
characteristics of their new task assignments. Instead, they appear
most responsive to job features that provide a sense of personal
acceptance and importance as well as a sense of proficiency through
feedback and individual guidance.[3] Van Maanen's (1975) study of urban
police socialization also demonstrated that for about the first three or
four months of their initial job assignments, police recruits are busily
absorbed in the process of changing and solidifying their own self and
job related perceptions as they finally come to know the actual
attitudes and behaviors of their veteran counterparts.

How long this initial socialization period lasts, therefore,
probably depends on how long it takes employees to feel accepted and
competent within their new work environments. Not only is the length of
such a time period greatly influenced by the abilities, needs, and prior
experiences of individual workers and influenced as well by the clarity
and usefulness of the interpersonal interactions that take place; but it
also probably differs significantly across occupations. Based on the
retrospective answers of his hospital employee sample, for example,
Feldman (1977) reports that on the average accounting clerks, registered
nurses, and engineering tradesmen reporting feeling accepted after 1, 2,
and 4 months, respectively although they did not feel completely
competent until after 3, 6, and 8 months, respectively. Generally
speaking, one might posit that the length of one's initial socialization
period varies positively with the level of complexity within one's job

and occupational requirements, ranging perhaps from as little as a month or two on very routine, programmed type jobs to as much as a year or more on very skilled, unprogrammed type jobs as in the engineering and scientific professions. With respect to engineering, for example, it is generally recognized that a substantial socialization period is often required before engineers can fully contribute within their new organizational settings using their particular knowledge and technical specialties. Thus, even though one might have received an excellent education in mechanical engineering principles at a university or college, one must still figure out from working and interacting with others in the setting how to be an effective mechanical engineer at Westinghouse, Dupont, or Procter and Gamble.[4]

Innovation

With time, interaction, and increasing familiarity, employees soon discover how to function appropriately in their jobs and to feel sufficiently secure in their perceptions of their workplace. Individual energies can now be devoted more towards task performance and accomplishment instead of being expended on learning the previously unfamiliar social knowledge and skills necessary to make sense out of one's work-related activities and interactions. As a result, employees become increasingly capable of acting in a more responsive, innovative, and undistracted manner.

The movement from socialization to the innovation stage of job longevity implies that employees no longer require much assistance in deciphering their new job and organizational surroundings. Having adequately constructed their own situational definitions during the

socialization period, employees are now freer to participate within their own conceptions of organizational reality. They are now able to divert their attentions from an initial emphasis on psychological safety and acceptance to concerns for achievement and influence. Thus, what becomes progressively more pertinent to employees as they proceed from socialization to the innovation stage are the opportunities to participate and grow within their job settings in a very meaningful and responsible manner.

The idea of having to achieve some reasonable level of psychological safety and security in order to be fully responsive to challenges in the work setting is very consistent with Kuhn's (1963) concept of "creative tensions". According to Kuhn, it is likely that only when conditions of both stability and challenge are present can the creative tensions between them generate considerable innovative behavior. Growth theorists such as Maslow (1962) and Rogers (1961) have similarly argued that the presence of psychological safety is one of the chief prerequisites for self-direction and individual responsiveness. For psychological safety to occur, however, individuals must be able to understand and attach sufficient meaning to the vast array of events, interactions, and information flows involving them throughout their workdays. Of particular importance to growth theorists is the idea that employees must be able to expect positive results to flow from their individual actions. Such a precondition implies that employees must have developed sufficient knowledge about their new job situations in order for there to be enough predictability for them to take appropriate kinds of actions.[5]

A similar point of view is taken by Staw (1977) when he argues that

if employees truly expect to improve their overall job situations, they must first learn to predict their most relevant set of behavioral-outcome contingencies before they try to influence or increase their control over them. One must first construct a reasonably valid perspective about such contingencies before one can sensibly strive to manage them for increasingly more favorable outcomes. In short, there must be sufficient awareness of one's environment, sufficient acceptance and competence within one's setting, and sufficient openness to new ideas and experiences in order for employees to be fully responsive to the "richness" of their job demands.

Stabilization

As employees continue to work in their same overall job settings for a considerable length of time, without any serious disruption or displacement, they may gradually proceed from innovation to stabilization in the sense of shifting from being highly involved in and receptive to their job demands to becoming progressively unresponsive. For the most part, responsive individuals prefer to work at jobs they find stimulating and challenging and in which they can self-develop and grow. With such kinds of activities, they are likely to inject greater effort and involvement into their tasks which, in turn, will be reflected in their performances (Hackman and Oldham, 1975; Katz, 1978b). It seems reasonable to assume, however, that in time even the most challenging job assignments and responsibilities can appear less exciting and more habitual to job holders who have successfully mastered and become increasingly accustomed to their everyday task requirements. With prolonged job longevity and stability, therefore, it is likely that

employees' perceptions of their present conditions and of their future possibilities will become increasingly impoverished. They may begin essentially to question the value of what they are doing and where it may lead. If employees cannot maintain, redefine, or expand their jobs for continual challenge and growth, then the substance and meaning of their work may begin to deteriorate. Enthusiasm wanes for what was once challenging and exciting may no longer hold much interest at all.

At the same time, it is also important to mention that if an individual is able to increase or even maintain his or her own sense of task challenge and excitement on a given job for an extended period of time, then instead of moving towards stabilization, the process might be the reverse, i.e., continued growth and innovation. As before, the extent to which an individual can maintain his or her responsiveness on a particular job strongly depends on the complexity of the underlying tasks as well as on the individual's own capabilities, needs, and prior experiences. With respect to individual differences, for example, Katz's (1978b) findings suggest that employees with high growth needs may be more responsive to the challenging aspects of their new jobs more quickly than employees with low growth needs. At the same time, however, high order need employees might not retain their responsiveness for as long a job period as employees with low growth need strength.

It should also be emphasized that in addition to job longevity, many other contextual factors can also affect a person's situational perspective strongly enough to influence the level of job interest as one continues to work in a given job position over a long period of time. New technological developments, rapid growth and expansion, the sudden appearance of external threats, or strong competitive pressures

could all help sustain or even enhance an individual's involvement in his or her job related activities. On the other hand, having to work closely with a group of unresponsive peers might shorten an individual's responsive period on that particular job rather dramatically. Clearly, the reactions of individuals are not only influenced by psychological predispositions and personality characteristics but also by individuals' definitions of and interactions with their overall situational settings (Homans, 1961; Salancik and Pfeffer, 1978).

Generally speaking, however, as tasks become progressively less stimulating to employees with extended job longevity, they can either leave the setting or remain and adapt to their present job situations (Argyris, 1957). In moving from innovation to stabilization, it is suggested that employees who continue to work in their same overall job situations for long periods of time gradually succeed in adapting to such steadfast employment by becoming increasingly indifferent and unresponsive to the challenging task features of their job assignments (Katz, 1978a). In the process of adaptation, they may also redefine what they consider to be important, most likely by placing relatively less value on intrinsic kinds of work issues. The findings of Kopelman (1977) and Hall and Schneider (1973) suggest, for example, that when individuals perceive their opportunities for intrinsic type satisfactions and challenges to be diminishing, they begin to match such developments by placing less value on such types of expectations. And as employees come to care less about the intrinsic nature of the actual work they do, the greater their relative concern for certain contextual features such as salary, benefits, vacations, friendly co-workers, and compatible supervision.

The passage from innovation to stabilization is not meant to suggest that job satisfaction necessarily declines with long term job longevity. On the contrary, it is likely that in the process of adaptation, employees' expectations have become adequately satisfied as they continue to perform their familiar duties in their normally acceptable fashions. If aspirations are defined as a function of the disparity between desired and expected (Kiesler, 1978), then as long as what indivduals desire is reasonably greater than what they can presently expect to attain, there will be energy for change and achievement. On the other hand, when employees arrive at a stage where their chances for future growth and challenges in their jobs are perceived to be remote, then as they adapt, it is likely that existing situations will become accepted as the desired and aspirations for growth and change will have been reduced. As a result, the more employees come to accept their present circumstances, the stronger the tendency to keep the existing work environment fairly stable. Career interests and aspirations may become markedly constricted, for in a sense, adapted employees may simply prefer to enjoy rather than try to add to their present job accomplishments.

Underpinning the descriptive changes represented by the stabilization stage is the basic idea that over time individuals try to organize their work lives in a manner that reduces the amount of stress they must face and which is also low in uncertainty (Pfeffer, 1980; Staw, 1977). Weick (1969) also relies on this perspective when he contends that employees seek to "enact" their environments by directing their activities toward the establishment of a workable level of certainty and clarity. In general, one might argue that employees

strive to bring their work activities into a state of equilibrium where they are more capable of predicting events and of avoiding potential conflicts.[6]

Given such developmental trends, it seems reasonable that with considerable job longevity, most employees have been able to build a work pattern that is familiar and comfortable, a pattern in which routine and precedent play a relatively large part. According to Weick (1969), as employees establish certain structures of interlocked behaviors and relationships, these patterns will in time become relatively stable simply because they provide certainty and predictability to these interstructured employees. It is further argued here that as individuals adapt to their long-term job tenure and become progressively less responsive to their actual task demands, the more they will come to rely on these established modes of conduct to complete their everyday job requirements. Most likely, adapted employees feel safe and comfortable in such stability, for it keeps them feeling secure and confident in what they do yet requires little additional vigilance or effort. In adapting to extended job longevity, therefore, employees become increasingly content and ensconced in their customary ways of doing things, in their comfortable routines and interactions, and in their familiar sets of task demands and responsibilities.

If change or uncertainty is seen by individuals in the stabilization period as particularly disruptive, then the preservation of familiar routines and patterns of behavior is likely to be of prime concern. Given such a disposition, adapted employees are probably less receptive toward any change or toward any information that might threaten to disturb their developing sense of complacency. Rather than

striving to enlarge the scope of their job demands, they may be more
concerned with maintaining their comfortable work environments by
protecting themselves from sources of possible interference, from
activities requiring new kinds of attention, or from situations that
might reveal their shortcomings. Adapted employees, for example, might
seek to reduce uncertainty in their day-to-day supervisory dealings
perhaps by solidifying their attractiveness through ingratiating kinds
of behavior (Wortman and Linsenmeier, 1977) or perhaps by isolating
themselves from such supervisory contacts (Pelz and Andrews, 1966). Or
they might seek to reduce uncertainty by trying to safeguard their
personal allocations of resources and rewards through the use of
standardized practices and policies. Whatever the specific behaviors
that eventually emerge in a given setting, it is likely that employees
who have become unresponsive to the challenging features of their
assigned tasks will strongly resist events threatening to introduce
uncertainty into their work environments.

One of the best examples of the effects of such long-term stability
can still be found in Chinoy's (1955) classic interviews of automobile
factory workers. Chinoy discovered that although almost 80% of the
workers had wanted to leave their present jobs at one time or another,
very few could actually bring themselves to leave. Most of the workers
were simply unwilling to give up the predictability and comfortableness
of the presently familiar routines and cultivated relationships for the
uncertainties of a new job position.

Situational Vs. Individual Control

In presenting this three stage model of job longevity, I have tried to describe some of the major concerns affecting employees as they enter and adapt to their particular job positions. Of course, the extent to which any specific individual is affected by these issues depends on the particular perceptual outlook that has been developed over time through job related activities and through role-making processes with other individuals including supervisors, subordinates, and peers (Weick, 1969; Graen, 1976). Employees, as a result, learn to cope with their particular job and organizational environments through their interpretations of relevant work experiences as well as their expectations and hopes of the future. To varying degrees, then, situational perspectives are derivatives of both retrospective and prospective processes in that they are built and shaped through knowledge of past events and future anticipations.

One of the more important aspects of the socialization process, however, is that the information and knowledge previously gathered by employees from their former settings are no longer sufficient nor necessarily appropriate for interpreting or understanding their new organizational domains. Newcomers, for instance, have had only limited contact within their new institutional surroundings from which to construct their perceptual views. Similarly, the extent to which veterans who are assuming new job positions can rely on their past organizational experiences and perspectives to function effectively within their new work settings can also be rather limited, depending of course on their degrees of displacement.

Essentially, individuals in the midst of socialization are trying to navigate their way through new and unfamiliar territories without the aid of adequate or even accurate perceptual maps. During this initial period, therefore, they are typically more malleable and more susceptible to change (Schein, 1968). In a sense, they are working under conditions of high "situational control" in that they must depend on other individuals within their new situations to help them define and interpret the numerous activities taking place around them. The greater their unfamiliarity or displacement within their new organizational areas, the more they must rely on their situations to provide the necessary information and interactions by which they can eventually construct their own perspectives and reestablish new situational identities. And it is precisely this external need or "situational dependency" that enables these individuals to be more easily influenced during their socialization processes through social interactions (Salancik and Pfeffer, 1978; Katz, 1980).

As employees became increasingly cognizant of their overall job surroundings, however, they also become increasingly capable of relying on their own perceptions for interpreting events and executing their everyday task requirements. In moving from socialization into the innovation or stabilization stage, employees have succeeded in building a sufficiently robust situational perspective, thereby freeing themselves to operate more self-sufficiently within their familiar work settings. They are now working under conditions of less "situational" but more "individual" control in the sense that they are now better equipped to determine for themselves the importance and meaning of the various events and information flows surrounding them. Having

established their own social and task supports, their own perceptual
outlooks, and their own situational identities, they become less easily
changed and less easily manipulated. As pointed out by Schein (1973),
when individuals no longer have to balance their situational
perspectives against the views of significant others within their
settings, they become less susceptible to change and situational
influences. Thus, movement through the three stages of job longevity
can also be characterized, as shown in Figure 1, by relative shifts to
more individual and less situational control.

Insert Figure 1 About Here

As the locus of "control" shifts with increasing job longevity and
individuals continue to stabilize their situational definitions, other
important behavioral tendencies could also materialize. In particular,
strong biases could develop in the way individuals select and interpret
information, in their cognitive abilities to generate new options and
strategies creatively, and in their willingness to innovate or implement
alternative courses of action. Table 2 outlines in more detail some of
the specific possibilities within each of these three general areas.
Furthermore, it is the capacity either to prevent or overcome these
kinds of tendencies that is so important to the long-term success of
organizations; for, over time, each of these trends could lead to less
effective performance and decision-making outcomes.

Insert Table 2 About Here

Problem-Solving Processes

It has been argued throughout this paper that as employees gradually adapt to prolonged periods of job longevity, they may become less receptive toward any change or innovation threatening to disrupt significantly their comfortable and predictable work practices and patterns of behavior. Individuals, instead, are more likely to develop reliable and effective routine responses, i.e., standard operating procedures, for dealing with their frequently encountered tasks in order to ensure predictability, coordination, and economical information processing. As a result, there may develop over time increasing rigidity in one's problem-solving activities — a kind of functional fixedness that reduces the individual's capacity for flexibility and openness to change. Responses and decisions are made in their fixed, normal patterns while novel situations requiring responses that do not fit such established molds are either ignored or forced into these molds. New or changing situations either trigger responses of old situations or trigger no responses at all. It becomes, essentially, a work world characterized by the phrase "business as usual."

Furthermore, as individuals continue to work by their well-established problem-solving strategies and procedures, the more committed they may become to such existing methods. Committment is a function of time and the longer individuals are called upon to follow and justify their problem-solving approaches and decisions, the more

ingrained they are likely to become. Drawing from his work on decision-making, Allison (1971) strongly warns that increasing reliance on regularized practices and procedures can become highly resistant to change since such functions become increasingly grounded in the norms and basic attitudes of the organizational unit and in the operating styles of its members. Bion (1959) and Argyris (1969) even suggest that it may be impossible for individuals to break out of fixed patterns of activity and interpersonal behavior without sufficiently strong outside interference or help.

With extended job tenure, then, problem-solving activities can become increasingly guided by consideration of methods and programs that have worked in the past. Moreover, in accumulating this experience and knowledge, alternative ideas and approaches were probably considered and discarded. With such refutations, however, commitments to the present courses of action can become even stronger—often to the extent that these competing alternatives are never reconsidered.[7] In fact, individuals can become overly preoccupied with the survival of their particular approaches, protecting them against fresh approaches or negative evaluations. Much of their energy becomes directed toward "mainlining their strategies", that is, making sure their specific solution approaches are selected and followed. Research by Janis and Mann (1977) and Staw (1980) has demonstrated very convincingly just how strongly committed individuals can become to their problem-solving approaches and decisions even in the face of adverse information, especially if they feel personally responsible for such strategies.

Information Processes

One of the potential consequences of developing this kind of "status-quo" perspective with respect to problem-solving activity is that employees may also become increasingly insulated from outside sources of relevant information and important new ideas. As individuals become more protective of and committed to their current work habits, the extent to which they are willing or even feel they need to expose themselves to new or alternative ideas, solution strategies, or constructive criticisms becomes progressively less and less. Rather than becoming more vigilant about events taking place outside their immediate work settings they may become increasingly complacent about external environmental changes and new technological developments.

In addition to this possible decay in the amount of external contact and interaction, there may also be an increasing tendency for individuals to communicate only with those whose ideas are in accord with their current interests, needs, or existing attitudes. Such a tendency is referred to as selective exposure. Generally speaking, there is always the tendency for individuals to communicate with those who are most like themselves (Rogers and Shoemaker, 1971). With increasing adaptation to long-term job longevity and stability, however, this tendency is likely to become even stronger. Thus, selective exposure may increase enabling these individuals to avoid information and messages which might be in conflict with their current practices and dispositions.

One should also recognize, of course, that under these kinds of circumstances any outside contact or environmental information that does become processed by these long-tenured individuals might not be viewed

in the most open and unbiased fashion. Janis and Mann (1977), for
example, discuss at great length the many kinds of cognitive defenses
and distortions commonly used by individuals in processing outside
information in order to support, maintain, or protect certain decisional
policies and strategies. Such defenses are often used to argue against
any disquieting information and evidence in order to maintain
self-esteem, commitment, and involvement. In particular, selective
perception is the tendency to interpret information and communication
messages in terms favorable to one's existing attitudes and beliefs.
And it is this combination of increasing insulation, selective exposure,
and selective perception that can be so powerful in keeping critical
information and important new ideas and innovations from being
registered.

Cognitive Processes

As individuals become more comfortable and secure in their
long-tenured work environments, their desire to seek out and actively
internalize new knowledge and new developments may begin to deteriorate.
Not only may they become increasingly isolated from outside sources of
information, but their willingness to accept or pay adequate attention
to the advice and ideas of fellow experts may become less and less.
Unlike the socialization period in which individuals are usually very
attentive to sources of expertise and influence within their new job
settings, individuals in the stabilization stage have probably become
significantly less receptive to such information sources. They may
prefer, instead, to rely on their own accumulated experience and wisdom
and consequently are more apt to dismiss the approaches, advice, or

critical comments of others. As a result, adapted employees may be especially defensive with regard to critical evaluations and feedback messages whether they stem from sources of outside expertise or from internal supervision.

It should also not be surprising that with increasing job stability one is more likely to become increasingly specialized, that is, moving from broadly defined capabilities and solution approaches to more narrrowly defined interests and specialties. Without new challenges and opportunities, the diversity of skills and of ideas generated are likely to become narrower and narrower. And as individuals welcome information from fewer sources and are exposed to fewer alternative points of view, the more constricted their cognitive abilities can become. Essentially, there can be a narrowing of one's cognitive processes, resulting in a more restricted perspective of one's situation coupled with a more limited set of coping responses. Such a restricted outlook, moreover, can be very detrimental to the organization's overall effectiveness, for it could lead at times to the screening out of some vitally important environmental information cues.

Homophyly refers to the degree to which interacting individuals are similar with respect to certain attributes such as beliefs, values, education, social status, etc. (Rogers and Shoemaker, 1971). Not only is there a strong tendency for individuals to communicate with those who are most like themselves, but it is also likely that continued interation can lead to greater homophyly in knowledge, beliefs, and problem-solving behaviors and perceptions (Burke and Bennis, 1961; Pfeffer, 1980). The venerable proverb "birds of a feather flock together" makes a great deal of sense, but it may be just as sensible to

say that "when birds flock together, they became more of a feather."
Accordingly, as individuals stabilize their work settings and patterns
of communication, a greater degree of homophyly is likely to have
emerged between these individuals and those with whom they have been
interacting over the long tenure period. And any increase in homophyly
could lead in turn to further stability in the communications of the
more homophilous pairs thereby increasing their insulation from
heterophilous others. Thus, it is possible for the various trends to
feed on each other. Finally, it should be mentioned that although
individuals may be able to coordinate and communicate with homophilous
partners more effectivly and economically, such interactions are also
more likely to yield less creative and innovative outcomes (Pelz and
Andrews, 1966).

Longevity and Performance

These problem-solving, informational, and cognitive tendencies, of
course, can be very serious in their consequences, perhaps even fatal.
Much depends, however, on the nature of the work being performed and on
the extent to which such trends actually transpire. The performances of
individuals working on fairly routine, simple tasks in a rather stable
organizational environment, for example, may not suffer as a result of
these trends, for their own knowledge, experiences, and abilities become
sufficient. Maintaining or improving on one's routine behaviors is all
that is required--at least for as long as there are no changes and no
new developments. However, as individuals function in a more rapidly
changing environment and work on more complex tasks requiring greater
levels of change, creativity, and informational vigilance, the effects

of these long-term longevity trends are likely to become significantly
more dysfunctional.

Group Longevity

The degree to which any of these previously described trends
actually materializes for any given individual depends, of course, on
the overall situational context. Individuals' perceptions and responses
do not take place in a social vacuum but develop over time as they
continue to interact with various aspects of their job and
organizational surroundings (Crozier, 1964; Katz and Van Maanen, 1977).
And in any job setting one of the most powerful factors affecting
individual perspectives is the nature of the particular group or project
team in which one is a functioning member (Schein, 1978; Katz and Kahn,
1978).

Ever since the well-known Western Electric Studies (Cass and
Zimmer, 1975), much of our research in the social sciences has been
directed toward learning just how strong group associations can be in
influencing individual member behaviors, motivations, and attitudes
(Asch, 1956; Shaw, 1971; Katz, 1977). From the diffusion of new
innovations (Robertson, 1971) to the changing of meat consumption
patterns to less desireable but more plentiful cuts (Lewin, 1965) to the
implementation of job enrichment (Hackman, 1978), group processes and
effects have been extremely critical to more successful outcomes. The
impact of groups on individual responses is substantial, if not
pervasive, simply because groups mediate most of the stimuli to which
their individual members are subjected while fulfilling their everyday
task and organizational requirements. Accordingly, whether individuals

experiencing long-term job longevity enter the stabilization period and become subjected to the tendencies previously described may strongly depend on the particular reinforcements, pressures, and behavioral norms encountered within their immediate project or work groups(Likert, 1967; Weick, 1969).

Generally speaking, as members of a project group continue to work together over an extended period of time and gain experience with one another, their patterns of activities are likely to become more stable with individual role assignments becoming more well-defined and resistant to change (Bales, 1955; Porter, Lawler, and Hackman, 1975). Emergence of the various problem-solving, informational, and cognitive trends, therefore, may be more a function of the average length of time the group members have worked together, i.e., group longevity, rather than varying according to the particular job longevity of any single individual. A project group, then, might either exacerbate or ameliorate the various trends (e.g., insulation from outside developments and expertise), just as previous studies have shown how groups can enforce or amplify certain standards and norms of individual behavior (e.g., Seashore, 1954; Stoner, 1968). Thus, it may be misleading to investigate the responses and reactions of organizational individuals as if they functioned as independent entities; rather it may be more insightful to examine the distribution of responses as a function of different project teams, especially when project teams are characterized by relatively high levels of group longevity.

Group Longevity: An Example in an R&D Setting

Over the past fifteen years or so, a plethora of studies have
clearly demonstrated that oral communications, rather than written
technical reports or publications, are the primary means by which
engineering and scientific professionals collect and transfer outside
information and important new ideas into their project groups (Allen,
1977; Menzel, 1966). Given the strategic importance of oral
communications in R&D settings, one should examine explicitly the
effects of any variable purporting to influence the linkages between a
project group and its outside technological and work environments. In
particular, the present example investigates the influence of group
longevity on the <u>actual</u> amount of interaction between R&D project groups
and their various outside sources of information and new ideas. As a
group "ages" and becomes more stable in its membership, to what extent,
if any, will its team members isolate themselves from external areas of
information, influence, and feedback; essentially by communicating less
frequently with professional colleagues and peers outside their project
team?

The present study was carried out at the R&D facility of a large
American Corporation. Geographically isolated from the rest of the
organization, the facility employed a total of 345 engineering and
scientific professionals, all of whom participated in our study. The
laboratory's professionals were divided into 7 departmental labs which,
in turn, were separated into 61 distinct project groups or work areas.
These project groupings remained stable over the course of our study;
each professional belonging to only one project team. The 61 project

groups were organized around specific, long-term types of problems such as fiber forming development, urethane development, and yarn technology. The project groups ranged across 3 kinds of task areas: either "Research", "Development", or "Technical Service." Specific definitions of these project task areas can be found in Katz and Tushman (1979).

Methods

To measure actual communications, all of the professionals were asked to keep track (on specially prepared forms) of all other professionals with whom they had work-related oral communication on a given sampling day. These sociometric data were collected on a randomly chosen day each week for 15 weeks with equal number of weekdays. Respondents were asked to report all contacts both within and outside the laboratory's facility (including whom they talked to and how many times they talked with that person during the day). They were instructed not to report strictly social interactions or written forms of communication. During the 15 weeks, the overall response rate was 93 percent. Moreover, 68 percent of all reported communication episodes within the laboratory were reciprocally reported by both parties. These research methods, therefore, provided a relatively accurate log of the actual communications of all professionals within this laboratory.

Project communication is measured by the average amount of technical communication per person per project over the fifteen weeks. For the purposes of our study, three mutually exclusive communication

measures were operationalized for each project group as follows:[8]

    1. <u>Intraproject Communication</u>: The amount of communication reported among all project team members.

    2. <u>Organizational Communication</u>: The amount of communication reported by project team members with other individuals outside the R&D facility but within other corporate divisions, principally marketing and manufacturing.

    3. <u>Professional Communication</u>: the amount of communication reported by project members with professionals outside the parent organization, including universities, consulting firms, and professional societies.

Project communication measures to these three independent domains were calculated by summing the relevant number of interactions reported during the 15 weeks with appropriate averaging for the number of project team members (See Katz and Tushman, 1979 for details). Finally, none of the pairs of measures of actual project communication were significantly intercorrelated at the $p < .10$ level of significance. Thus, these three distinct measures of project communication were independent both conceptually and empirically.

    In addition to project communication, we also tried to measure the current technical performance of all project groups. Since comparable measures of project performance have yet to be derived across different technologies, a subjective technique had to be employed. Each Department Manager (N=7) and Laboratory Director (N=2) was separately interviewed and asked to evaluate the overall technical performance of

all projects with which he was technically familiar. They were asked to make their informed judgements based on their knowledge of and experience with the various projects. If they could not make an informed judgement for a particular project, they were asked not to rate the project. Criteria the managers considered (but were not limited to) included: schedule, budget, and cost performance; innovativeness; adaptability; and the ability to coordinate with other parts of the organization. On the average, each project was independently rated by at least 4 managers on a seven-point scale, ranging from very low (1) to very high (7). As the performance ratings across the nine judges were highly intercorrelated (Spearman-Brown reliability = .81), individual ratings were averaged to yield overall project performance scores.

During the course of the study, demographic data was also collected from the laboratory's professionals, including their age, educational degrees, and the number of years and months they had been associated with their specific project area. Group longevity or mean group tenure was calculated by averaging the project tenures reported by all project members. It is important to recognize, then, that group longevity is not the length of time the project has been in existence, but rather it measures the length of time project team members have worked together. Complete communication, performance, and demographic data were successfully obtained on a total of 50 project groups representing 82% of all projects within this R&D facility.

Results

In order to determine whether any clear pattern might emerge between group longevity and the various measures of project

communication, the fifty project groups were divided into five quintiles
according to the tenure categories shown in Table 3. The first 0.0 to
1.5-year interval corresponds to an initial "learning or team-building"
phase as project members become socialized into their new project
environments. In contrast, the last category of project groups
represents teams whose members have worked together for a long period of
time, i.e., for an average of at least 5 years.[9] This 5-year cutoff
also reflects the time period commonly used to estimate the half-life of
technical information (Dubin, 1972).

Insert Table 3 About Here

Table 3 shows the mean amounts of intraproject, organizational, and
outside professional communication for all project teams in each of the
five group longevity categories. With respecct to all 3 measures of
communication, the long-tenured project groups reported much lower
levels of contact than project groups falling within the 1.5-5.0 tenure
categories; in fact, the levels of intraproject and outside
professional interactions were significantly lower. These data, then,
strongly support the hypothesis that project teams can become
increasingly insulated from sources of information both within the
organization as well as from sources outside the organization as project
members continue to work together over an extended period of time.
There may be, as a result, a significant tendency within this facility
for members of project groups to isolate themselves from external

technology, from other organizational divisions especially marketing and
manufacturing, and even from other project members as the mean tenure of
project membership increases to over 5 years.[10]

It is also important to point out that in the current
organizational sample there was no clear trend in any of the
communication patterns of individual engineers when they were examined
as a function of job longevity. Only when the engineers were grouped
according to their project teams was there a clear and obvious decrease
in interaction as a function of mean project tenure. How individuals
eventually adapt to their long-term tenure on a given project,
therefore, is probably influenced to a great extent by their project
colleagues.

Generally speaking, previous research has also shown that the
overall technical performance of R&D project groups is strongly
associated with its levels of project communication (Allen,1977). Given
the significant differences in the three measures of project
communication along the group longevity continuum, the next step is to
examine the distribution of project performance as a function of group
longevity to see if it follows a similar pattern. Accordingly, Table 4
presents the average performance scores of projects within each of the 5
tenure categories.

Insert Table 4 About Here

The curvilinear association between project performance and mean

project tenure within this facility parallels extremely closely the communication trends reported in Table 3. On the average, project performance was significantly higher and nearly identical across all three middle tenure categories. Contrastingly, average project performance was significantly lower for teams whose mean group tenure was either less than 1.5 years, or more than 5 years. In fact, none of the 10 project groups in the long-tenured category were among the facility's higher performing projects. All 10 groups had been rated as either average or below average in performance.[11] Further analyses of this data also demonstrated that it was tenure within the project team and not chronological age or organizational tenure that was more likely to have influenced project performance (See Katz and Allen, 1980 for details).

Even though the long-tenured project teams had comparatively lower performance ratings coupled with lower levels of intraproject, organizational, and external professional communication, one must be careful not to conclude that decays in all 3 areas of communication may have contributed significantly or equally to the decay in project performance. Indeed, previous research has shown that different categories of project tasks require significantly different patterns of communication for more effective technical performance (Allen, 1977; Katz and Tushman, 1979; Dewhirst, Arvey, and Brown, 1978). Research project groups, for example, have been found to be higher performing when all project members maintained high levels of technical communication with outside professionals. Development project performance, on the other hand, has not been positively linked with direct project member communication to outside professionals; instead,

they have been found to be higher performing when they maintained high levels of organizational communication, especially with individuals from manufacturing and marketing. Finally, both intraproject and outside professional communication have been significantly connected to the overall performance ratings of technical service project groups.

Because research, development, and technical service project groups differ significantly in the way they effectively communicate both internally and externally, i.e., with outside technological developments and information, one must also analyze the previous empirical trends by project type to see if the different kinds of project tasks have become insulated from their more critical information domains. Towards this end, Table 5 displays the correlations between group longevity and the various performance and communication measures for each project type during the interval in which the purported decays seem to take place, i.e., for projects whose group longevity scores exceed 2.5 years (See Katz and Allen, 1980 for some detailed curve-fitting results). Of the 30 projects with a mean group tenure score of at least 2.5 years, 6 were categorized as research, 12 as development, and 12 as technical service projects (See Katz and Tushman, 1979 for details).

Insert Table 5 About Here

As shown in Table 5, all three project types revealed a significant deterioration in project performance with increasingly high levels of group longevity. Furthermore, there was the tendency, with one

exception, for projects in each of these task categories to interact
less often with individuals from the 3 communication domains. For each
project type, however, the insulation trend was particularly strong to
certain key areas. Specifically, with increasing group longevity, there
was an obvious decay in the outside professional communication of
research project groups, a significant decline in the linkages between
development projects and other organizational divisions, and
significantly lower levels of intraproject communication for the
long-tenured technical service teams. Moreover, by using each of these
key communication measures as control variables, partial correlational
analyses were performed to confirm that for each project type, group
longevity may affect project performance, at least in part, by operating
through reducations in communication to its most critical information
domains.[12]

Such findings suggest that it may not be a reduction in project
communication per se that can lead to less effective or less creative
project performance. Rather a deterioration in performance is more
likely to stem from a project group's tendency to insulate itself from
sources that can provide more critical kinds of evaluation, information,
and feedback. Thus, overall performance may suffer when research
project members fail to pay sufficient attention to events and
information within their relevant external R&D community; or when
development project members fail to communicate sufficiently with their
client groups from marketing and manufacturing; or when members of
technical service projects fail to interact sufficiently amongst
themselves.[13]

Conclusions

What is suggested by this discussion of job and group longevities is that employee perspectives and behaviors, and their subsequent effects on performance, might be significantly managed through staffing and career decisions. One could argue, for example, that the energizing and destabilizing function of new team members can be very important in preventing a project group from developing some of the tendencies previously described for long-tenured individuals, including insulation from key communication areas. The benefit of new team members is that they may have a relative advantage in generating fresh ideas and approaches. With their active participation, existing group members might consider more carefully ideas and alternatives they might have otherwise ignored or dismissed. In short, project newcomers can represent a novelty-enhancing condition, challenging and improving the scope of existing methods and accumulated knowledge.[14]

The longevity framework also seems to suggest that periodic job mobility or rotation might help prevent employees from moving into a stabilization stage. As long as the socialization period is positively negotiated, employees can simply cycle from one innovation period into another.[15] Put simply, movements into new positions may be ncessary to keep individuals stimulated, flexible, and vigilant with respect to their work environments. Within a single job assignment, the person may eventually reach the limit to which new and exciting challenges are possible or even welcomed. At that point, a new job position may be necessary. To maintain adaptability and to keep employees responsive,

what might be needed are career histories containing sequences of job positions involving new challenges and requiring new skills (Kaufman, 1974 and Dalton and Thompson's chapter in this book). As pointed out by Schein (1968), continued growth and development often comes from adaptations to new or changing work environments requiring individuals to give up familiar and stable work patterns in favor of developing new ones.

As important as job mobility is, it is probably just as important to determine whether individuals and project groups can circumvent the effects of longevity without new assignments or rejuvenation from new project members. Rotations and promotions are not always possible especially when there is little organizational growth. As a result, we need to learn considerably more about the effects of increasing job and group longevities. Just how deterministic are the trends? Can long-tenured individuals and project teams remain high performing, and if so, how can it be accomplished? In the empirical example presented in this paper, none of the 10 long-tenured project groups was above the sample median in project performance. Nevertheless, different trends might have emerged with different kinds of organizational climates, different personnel and promotional policies, different economic and marketing conditions or even different types of organizational structures. Would matrix structures, for instance, allow long-tenured project groups to remain effective as long as their members remained strongly connected to their functional or technical specialty groups?

In a general sense, then, we need to learn how to detect the many kinds of changes that either have or are likely to take place within a group as its team membership ages. Furthermore, we need to learn if

project groups can keep themselves energized and innovative over long periods of group longevity, or whether certain kinds of organizational structures and managerial practices are needed to keep a project team effective and high performing as it ages.

In response to this issue, Professor Tom Allen and I have undertaken an extensive study in 12 different organizations involving other 200 R&D project teams of which 50 or so have group longevity scores that exceed 5 years. More interestingly, it turns out that a large number of these long-tenured project groups were judged to be high performing teams. Although we are still processing the data, preliminary analyses suggest that the nature of the project's supervision may be the most important factor differentiating the more effective long-tenured teams from the less effective ones. In particular, engineers belonging to the high performing, long-tenured project groups perceived their functional supervision to be significantly higher in: (1) disseminating technical information; (2) in being well-informed professionally; and (3) in being concerned about their professional development.[16]

Such findings suggest that a strong functional competency dimension may be especially important in the effective management of long-term project groups. With respect to R&D settings, this may imply that the presence of certain technical specialists, labelled gatekeepers by Allen, (977), may be especially important to the success of long-term R&D project teams.[17] Such a role requirement may be necessary because with long-term group longevity, many project members have become increasingly overspecialized and more "locally" oriented (i.e., more organizationally oriented), thereby, making it increasingly difficult

for them to communicate effectively with outside sources of technology
or with keeping themselves up-to-date within their technical
specialties.

In a broader context, we need to learn how to manage workers,
professionals, and project teams as they enter and proceed through
different stages of longevity. Clearly, different kinds of managerial
styles and behaviors may be more appropriate at different stages of
longevity. Delegative or participative management, for example,
may be very effective when individuals are vigilant and highly
responsive to their work demands, but such supervisory activities may prove
less successful when employees are unresponsive to their job environ-
ments, as in the stabilization stage. Futhermore, as perspectives and
responsiveness shift over time, the actions required of the managerial
role will also vary. Managers may be effective, then, to the extent
they are able to recognize and cover such changing conditions. Thus,
it may be the ability to manage change--the ability to diagnose and
manage between socialization and stabilization--that we need to learn
so much more if we truly hope to provide careers that both keep
employees responsive and keep organizations effective.

FOOTNOTES

1. For a more extensive discussion of the job longevity model, see Katz (1980). In the current presentation, the term "stabilization" is used in place of "adaptation" since individuals are in effect adapting to their job situations in all three stages, albeit, in systematically different ways.

2. The extent to which a veteran employee actually undergoes socialization depends on how displaced the veteran becomes in undertaking his or her new job assignment. Generally speaking, the more displaced veterans are from their previously familar task requirements and interpersonal associations, the more intense the socialization experience.

3. After comparing the socialization reactions of veterans and newcomers, Katz (1978a) suggests that newcomers may be especially responsive to interactional issues involving personal acceptance and "getting on board," whereas veterans may be particularly concerned with reestablishing their sense of competency in their newly acquired task assignments.

4. One of the factors contributing to the importance of this socialization period lies in the realization that engineering strategies and solutions within organizations are often not defined in very generalizeable terms but are peculiar to their specific settings (Allen, 1977; Katz and Tushman, 1979). As a result, R&D project groups in different organizations may face similar problems yet may define their solution approaches and parameters very differently. And it is precisely because technical problems are typically expressed in such "localized" terms that engineers must

learn how to contribute effectively within their new project groups.

5. It is also interesting to note that in discussing his career anchor framework, Schein (1978) points out that career anchors seem to represent a stable concept around which an individual is able to organize his experiences and direct his activities. Furthermore, it appears from Schein's research that it is within this area of stability that individuals are able to self-develop and grow.

6. There are of course alternative arguments, such as in activation theory (Scott, 1966), suggesting that people do in fact seek uncertainty, novelty, or change. The argument here, however, is that as individuals adapt and become increasingly indifferent to the task challenges of their jobs, it is considerably more likely that they will strive to reduce uncertainty and maintain predictability rather than the reverse.

7. As shown by Allen's (1966) research on parallel project efforts, such reevaluations can be very important in reaching more successful outcomes.

8. Three other measures of communication were also operationalized but have not been included in this presentation because they were not associated with project performance either for projects in this site or in previous research studies. The three communication measures reported here have all been shown to be important for more effective performance.

9. The maximum group longevity score for projects in this category was approximately 12 years.

10. One must be very careful in interpreting the data patterns reported

here for they are based on cross-sectional and not longitudinal-
type data. Strictly speaking, we can only speculate about the
tendency for communication activity to decline with high levels of
group longevity.

11. It is important to point out that in rating project performance,
higher level management did not know which projects had high levels
of group longevity; nor were they cued to our interests in the
effects of group longevity.

12. The partial correlations are reported in Katz and Allen (1980).

13. Such findings should not be interpreted to mean that external
developments in technology are unimportant to development projects.
On the contrary, they are exceedingly important! It is simply that
development project performance may not be adversely affected by
having less direct member interaction with external professionals.
This occurs because development groups, unlike research or
technical service projects, are more effectively linked with their
external technical environments through specialized boundary
spanning individuals labelled gatekeepers rather than through
direct project member communication (Allen, 1977; Tushman and Katz,
1980).

14. As discussed by Van Maanen's chapter in this book, the
socialization process of individuals can greatly affect the extent
to which newcomers may be willing to try to innovate on existing
"wisdoms."

15. A discussion on effectively managing the socialization process is
beyond the scope of this paper. The reader is referred to the
descriptive theory presented in Van Maanen's chapter of this book

as well as to the more normative presentations of Schein (1968);
Kotter (1973); Hall (1976); Katz (1980); and Wanous (1980).

16. For the 40 long-tenured project groups, the significant
correlations between project performance ratings and project member
perceptions of these three supervisory activities were .54; .58;
and .44, respectively.

17. It is interesting to note that in the data presented from the large
R&D facility, none of the long-tenured development project teams
had a technical gatekeeper as part of their team membership.

REFERENCES

Allen, T.J. "Studies of the problem-solving processes in engineering
designs." IEEE Transactions in Engineering Management, 1966, 13,
72-83.

Allen, T.J. Managing the flow of technology. Cambridge:M.I.T. Press,
1977.

Allison, G.T. Essence of decision: Explaining the Cuban missile
crisis. Boston:Little Brown and Co., 1971.

Argyris, C. Personality and organization. New York:Harper Torch Books,
1957.

Argyris, C. "The incompleteness of social psychological theory:
Examples from small group, cognitive consistency and attribution
research." American Psychologist, 1969, 24, 893-908.

Asch, S.E. "Studies of independence and conformity: A minority of one
against a unanimous majority." Psychological Monographs, 1956, 70.

Bales, R.F. "Adaptive and integrative changes as sources of strain in
social systems." In A.P. Hare, E.F. Borgatta, and R.F. Bales
(Eds.) Small groups: Studies in social interaction. New
York:Knopf, 1955, 127-131.

Burke, R.L., and Bennis, W.G. "Changes in perception of self and others
during human relations training." Human Relations, 1961, 14,
165-182.

Cass, E.L., and Zimmer, F.G. Man and Work in Society. New York:Van
Nostrand Reinhold co., 1975.

Chinoy, E. Automobile workers and the american dream. Garden City,
N.Y.:Doubleday, 1955.

Crozier, M. The bureaucratic phenomenon. Chicago:University of Chicago Press, 1964.

Dewhirst, H., Arvey, R., and Brown, E. "Satisfaction and performance in research and development tasks as related to information accessibility." IEEE Transactions on Engineering Management, 1978, 25, 58-63.

Dubin, S. S. Professional obsolescence. Lexington, Mass:Lexington Books, D.C. Heath, 1972.

Feldman, D. "The role of initiation activities in socialization." Human Relations, 1977, 30, 977-990.

Graen, G. "Role-making processes within complex organizations." In M. D. Dunnette (ed.), Handbook of industrial and organizational psychology, Chicago:Rand McNally, 1976.

Hackman, J. R. "The design of self managing work groups." In B. King, S. Steufert, and F. Fiedler (Eds.), Managerial Control and organizational Democracy, Washington, DC:John Wiley, 1978.

Hackman, J. R. and Oldham, G. R. "Development of the job diagnostic survey." Journal of Applied Psychology, 1975, 60, 159-170.

Hall, D. T. Careers in organizations. Pacific Palisades, California:Goodyear, 1976.

Hall, D. T. and Nougaim, K. E. "An examination of Maslow's need hierarchy in an organizational setting." Organizational Behavior and Human Performance, 1968, 3, 12-35.

Hall, D. T. and Schneider, B. Organizational climates and careers. New York:Seminar Press, 1975.

Homans, G.C. Social behavior: Its elementary forms. New York:Hartcourt, Brace, and World, 1961.

Hughes, E.C. Men and their work. Glencoe, Ill:Free Press, 1958.

Janis, I.L., and Mann, L. Decision Making. New York:The Free Press, 1977.

Kahn, R.L., Wolfe, D.M., Quinn, R.P., Snoek, J.D., and Rosenthal, R.A. Organizational stress: studies on role conflict and ambiguity. New York:Wiley, 1964.

Katz, D., and Kahn, R.L. The social psychology of organizations. New York:Wiley, 1978.

Katz, R. "The influence of group conflict on leadership effectiveness." Organizational Behavior and Human Performance., 1977, 20, 265-286.

Katz, R. "Job Longevity as a situational factor in job satisfaction." Administrative Science Quarterly, 1978, 10, 204-223.

Katz, R., "The influence of job longevity on employee reactions to task characteristics." Human Relations, 1978b, 31, 703-725.

Katz, R. "Time and work : Toward an integrative perspective." In B. Staw and L.L. Cummings (Eds.) Research in Organizational Behavior, 1980, 2, JAI Press, 81-127.

Katz, R., and Allen, T. "An empirical test of the not-invented-here syndrome." MIT Working Paper # WP1114-80, M.I.T., 1980.

Katz, R., and Tushman, M. "Communication patterns, project performance and task characteristics: An empirical evaluation and integration in an R&D setting." Organizational Behavior and Human Performance, 1979, 23, 139-162.

Katz, R., and Van Maanen, J. "The loci of work satisfaction: Job, interaction, and policy." Human Relations, 1977, 30, 469-486.

Kaufman, H.G. Obsolescence of professional career development. New

York:AMACOM, 1974.

Kiesler, S. Interpersonal processes in groups and organizations. Arlington Heights, Ill.:AHM Publishing, 1978.

Kopelman, R.E. "Psychological stages of careers in engineering: An expectaᴎᴄy ᴛheory taxonamy." Journal of Vocational Behavior, 1977, 10, 270-286.

Kotter, J. "The psychological contract: Managing the joining-up process." California Management Review, 1973, 15, 91-99.

Kuhn, T.S. The structure of scientific revolutions. Chicago:University of Chicago Press, 1963.

Lawrence, P.R., and Lorsch, J.W. Organization and Environment. Boston:Harvard Business School, 1967.

Lewin, K. "Group decision and social change." In H. Proshansky and B. Seidenberg (eds.), Basic studies in social psychology. New York:Holt, Rinehart, and Winston, 1965, 423-436.

Likert, R. The human organization. New York:McGraw-Hill, 1967.

Maslow, C.R. On becoming a person. Boston:Houghton Mifflin, 1961.

Menzel, H. "Information needs and uses in science and technology." In C. Cuadra (Ed.) Annual Review of Information Science and Technology, New York:Wiley, 1965.

Pelz, A., and Andrews, F.M. Scientists in Organizations. New York: Wiley, 1966.

Pfeffer, J. "Management as symbolic action: The creation and maintenance of organizational paradigms." In L.L. Cummings and B. Staw (eds.) Research in Organizational Behaivor, 1980, 3, JAI Press, in press.

Porter, L.W., Lawler, E.E., and Hackman, J.R. Behavior in

Organizations. New York:McGraw-Hill, 1975.

Robertson, T.S. Innovative behavior and communication. New York:Holt, Rinehart and Winston, 1971.

Rogers, C.R. On becoming a person. Boston:Houghton Miffline, 1961

Rogers, E.M., and Shoemaker, F.F. Communications of innovations: A cross-cultural approach. New York:The Free Press, 1971.

Salancik, G.R., and Pfeffer, J. "A social information processing approach to job attitudes and task design." Administrative Science Quarterly, 1978, 23, 224-253.

Schein, E.H. "Organizational socialization and the profession of management." Industrial Management Review, 1968, 9, 1-15.

Schein, E.H. "The individual, the organization, and the career: A conceptual scheme." Journal of Applied Behavioral Science, 1977, 7, 401-426.

Schein, E.H. 'Personal change though interpersonal relationships." In W.G. Bennis, D.E. Berlew, E.H. Schein, and F.I. Steele (eds.), Interpersonal dynamics: Essays and readings on human interaction, Homewood, Ill.:Dorsey Press, 1973.

Schein, E.H. Career dynamics. Reading, Mass:Addison-Wesley, 1978.

Scott, W.E. "Activation theory and task design." Organizational Behavior and Human Performance, 1966, 1, 3-30.

Seashore, S.F. "Group cohesiveness in the industrial work group." Ann Arbor, Michigan:Survey Research Center, University of Michigan, 1954.

Shaw, M.E. Group dynamics: The psychology of small group behavior. New York:McGraw-Hill, 1971.

Staw, B. "Motivation in Organizations: Toward synthesis and

redirection." In B. Staw and G.R. Salancik (eds.) <u>New directions</u> <u>in organizational behavior</u>. Chicago:St. Clair Press, 1977.

Staw, B. "Rationality and justification in organizational life." In B. Staw and L.L. Cummings (eds.) <u>Research in Organizational Behavior</u>, 1980, <u>2</u>, 45-80.

Stoner, J.A. "Risky and caustions shifts in group decisions: The influence of widely held values." <u>Journal of Experimental Social Psychology</u>, 1968, <u>4</u>, 442-459.

Tushman, M., and Katz, R. "External communication and project performance: An investigation into the role of gatekeepers." <u>Management Science</u>, 1980, in press.

Utterback, J. "Innovation in industry and the diffusion of technology." <u>Science</u>, 1974, <u>183</u>, 620-626.

Van Maanen, J. "Police socialization." <u>Administrative Science Quarterly</u>, 1975, <u>20</u>, 207-228.

Wanous, J. <u>Organizational Entry</u>. Reading, Mass.:Addison-Wesley, 1980.

Weick, K.E. <u>The Social Psychology of Organizing</u>. Reading, Mass.:Addition-Wesley, 1969.

Wheeler, S. "The structure of formally organized socialization settings." In O.G. Brim and S. Wheeler (eds.), <u>Socialization After Childhood: Two Essays</u>. New York:Wiley, 1966.

Wortman, C.B. and Linsenmeier, J. "Interpersonal attraction and techniques of ingratiation in organizational settings." In B. Staw and G.R. Salancik (eds.), <u>New Directions in Organizational Behavior</u>. Chicago, Ill.:St. Clair Press, 1977.

TABLE 1. A Model of Job Longevity

Job Longevity Stages	Primary Areas of Concern

Stage 1. SOCIALIZATION: Reality Construction[+]

    a) To build one's situational identity
    b) To decipher situational norms and identify acceptable, rewarded behaviors
    c) To build social relationships and become accepted by others
    d) To learn supervisory, peer, and subordinate expectations
    e) To prove oneself as an important, contributing member

Stage 2. INNOVATION: Influence, Achievement, and Participation

    a) To be assigned challenging work
    b) To enhance one's visibility and promotional potential
    c) To improve one's special skills and abilities
    d) To enlarge the scope of one's participation and contribution
    e) To influence one's organizational surroundings

Stage 3. STABILIATION: Maintenance, Consolidation, and Protection

    a) To routinize one's task activities
    b) To preserve and safeguard one's task procedures and resources
    c) To protect one's autonomy
    d) To minimize one's vulnerability
    e) To cultivate and solidify one's social environment

[+]The listed items are not meant to be exhaustive; rather the intent to illustrate both the domain and the range of issues within each stage.

TABLE 2. Representative Trends Associated With Long-term
Job Longevity

I. Problem-Solving Processes

a) Increased rigidity
b) Increased commitment to established practices and procedures
c) Increased mainlining of strategies

II. Information Processes

a) Increased insulation from critical areas
b) Increased selective exposure
c) Increased selective perception

III. Cognitive Processes

a) Increased reliance on own experiences and expertise
b) Increased narrowing of cognitive abilties
c) Increased homophyly

TABLE 3. Mean Communication Frequencies as a Function of Group Longevity

Areas of Communication	Categories of Group Longevity (in years)					All Project Groups
	0.0-1.5	1.5-2.5	2.5-3.5	3.5-5.0	5.0 or more	
Mean Intraproject Communications**	42.0	101.0	110.0	180.0	69.0	100.0
Mean Organizational Communications (per person per month)	17.5	21.3	30.0	25.6	20.1	22.9
Mean External Professional Communications* (per person per month)	0.81	0.98	2.04	1.83	0.69	1.27
No. of Projects	10	10	10	10	10	50

A 1-way ANOVA test was used to test for significant mean difference across the five group longevity categories (*$p<.10$; **$p<.05$)

Note 1. Because intraproject communication frequencies had to be adjusted for the number of possible interactions (see Katz and Tushman, 1979), intraproject communication scores can not be linked to an absolute scale. To show relative intraproject differences across the various categories, however, the intraproject measures have been standardized to an overall sample mean of one hundred.

TABLE 4. Project Performance as a Function of Group Longevity

	Categories of Group Longevity (in years)					All Project Groups
	0.0-1.5	1.5-2.5	2.5-3.5	3.5-5.0	5.0 or more	
Mean Project Performance**	4.29	4.89	4.87	4.82	4.07	4.59
Standard Deviations	0.99	0.67	0.70	0.59	0.52	0.76
No. of Projects	10	10	10	10	10	50

** Based on a 1-way ANOVA test, the mean project performance scores are significantly different across the five group longevity categories [$F(4,45)=2.89$; $p<.05$].

TABLE 5. Correlations Between Group Longevity and Project
Performance and Project Communication for Teams
With Group Longevity of at Least 2.5 Years.

Variables Correlated With Group Longevity	----------Task Type----------		
	Research (N=6)	Development (N=12)	Technical Service (N=12)
a) Project Performance	-.62*	-.39*	-.44*
b) Intraproject Communication	-.26	-.14	-.72***
c) Organizational Communication	.27	-.53**	-.12
d) Outside Professional Communication	-.51	-.23	-.39

*p <.10; **p <.05; ***p <.01

FIGURE 1

SITUATIONAL VERSUS INDIVIDUAL CONTROL
ALONG THE JOB LONGEVITY CONTINUUM

HIGH

SITUATIONAL
CONTROL

LOW

SOCIALIZATION

INNOVATION

ADAPTATION

LOW   HIGH

INDIVIDUAL
CONTROL