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SOME EFFECTS OF COSMOPOLITAN-LOCAL ORIENTATION UPON
VARIOUS INDIVIDUAL ATTITUDES AND CHARACTERISTICS

by

STEVEN KERR

A dissertation submitted to the Graduate
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August 30, 1973
date

Robert J. House *JK*
Chairman of Examining
Committee

August 30, 1973
date

Sidney I. Lirtzman *JK*
Executive Officer

Sherman R. Krupp

Sidney I. Lirtzman

Manus Rabinowitz
Supervisory Committee

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I: INTRODUCTION

Half a century ago, George Herman (Babe) Ruth used to pitch baseball every third day or so and play the outfield on days when he didn't. He was also expected to hit the ball, and they say he was pretty good at that, too.

Until not too long ago, the defensive safety was very likely to be the offensive quarterback as well, except when the coach ordered a punt, in which case the same man would very often kick the ball. They called it one-platoon football, and no one seemed to mind.

In 1912, when Teddy Roosevelt tried to prevent President Taft's bid for renomination, he wrote his own speeches, arranged most of his own scheduling, and acted as his own campaign manager. He even went the entire campaign without the services of a makeup man.

It wasn't always a stigma to be a General Practitioner in medicine, either. It was said that the G.P. could earn a living, obtain admitting privileges at the good hospitals, and generally command the respect of his peers and of the general public.

It used to be axiomatic that the way to succeed in industry was to start out as a messenger, or at the mail desk, or even on the shop floor. A person would work very hard, and be very persistent, and would advance over time through the many levels of the organizational hierarchy. At last, possessed of good work habits, bolstered by past successes, and toughened by experience, the now not-so-young man would be awarded a position of leadership. Even the Owner's son would travel

this route, although it never seemed to take him quite so long at each rung as it did everybody else.

We have witnessed some major changes in the last half century in knowledge, in attitudes, and in expectations. The level of education of our work force has risen sharply during this period, and has helped to raise employee expectation. Advancements in technology have combined with increased government intervention and heightened levels of competition to raise the required skill level of the work force as well. These forces have ushered in the "age of the specialist", and rendered obsolete the implicit assumptions made by the Classicists concerning homogeneity of the labor supply. If Man was ever a standardized commodity, he is surely one no longer, and this is true regardless of the type of organization we are talking about. The modern sports team is based upon specific spheres of competence that would make Weber thrill with pride. We not only have a position called Kicker, we in fact have two of them, depending upon whether the kick is to be one of distance (the Punter) or one of accuracy (the Field Goal Specialist). On only one of twenty-six American Pro Football teams did the same person simultaneously occupy both positions during the 1970-1971 season. In politics and in medicine, the same emphasis upon specialization has taken place.

In industry, too, it is less possible to begin as a generalist in a low position, occupy a number of very different positions within the same firm, and eventually be awarded a responsible and challenging position. The most reliable path to organizational success today is to arrive with an area of specialty, usually acquired through formal education. The first job will therefore be one which is several levels higher than the mail desk "entry point" of fifty years ago. More often

than not, it is success at the specialized task which brings corporate visibility and the promise of better things in the future. If such visibility seems slow in coming, today's young worker is much more likely than was his grandfather to consider trying his luck with another organization. Part of the reason for this is that the educated employee has more of a stake in his education (which may be considered a "sunk cost", an investment in his future) than did his grandfather, and less of a stake in the organization (since he has not been required to put in the years of high-cost low-reward work at the shop floor level). Another part of the reason for the increased propensity to leave of the modern worker is that he has been socialized to a different value system. His years of formal education have in many cases succeeded in indoctrinating him with "professional values", of which more will be said later. At the same time, he is likely to hear very little about the virtue of being "loyal" to one firm. He is, in short, more likely to be committed to his occupational specialty and less likely to be committed to the employing organization.

This combination of circumstances creates an uncomfortable paradox for the organization. It is that the ability to retain employees for long periods of time is diminishing at the very time that the costs of recruitment and training of personnel are on the rise, and for the same reasons. Highly educated and skilled personnel do not come cheap, after all. They have invested time and money in their training, and they expect to recoup that investment. Then, the organization must still spend further sums of money to acquaint the new employees with the comparatively specialized nature of his job. After that is accomplished, the organization must continually be concerned with pleasing

the employee, since dissatisfaction today is more rapidly followed by search for a new firm. Finally, even when the organization has paid all of these costs, it must still realize that it will not be able to obtain loyalty from many employees whose identification will continue to be primarily to their occupational specialty, and only secondarily to their employing institution.

The present study is an attempt to learn more about identification and professional commitment, and how these may suggest that changes be made in traditional beliefs about organizational reward systems, subordinate motivation, and leadership practices. The theoretical starting-point for the study will be the cosmopolitan-local literature, which deals squarely with the issues of identification and professional commitment, but which has for the most part been unable to demonstrate that significant and meaningful data can be generated by utilizing the cosmopolitan-local construct. The literature on Professionalism will also be reviewed, with particular reference to those aspects which relate to cosmopolitanism.

This thesis will therefore be comprised of four main tasks, as follows:

1. The literature review described above will be presented (in Chapter II), to enable this research to begin where other studies have left off.

2. An effort will be made to operationalize the most important elements of cosmopolitan-local theory, in such a way that specific predictions can be made concerning employee attitudes and satisfaction. It will be shown in Chapter II that previous attempts to operationalize the construct so as to represent all pertinent dimensions have almost

always failed to produce meaningful and interpretable data. The present research will attempt also to conceptually link cosmopolitan-local theory to a more general explanation of motivation, Expectancy-Preference Theory. This operationalization will comprise Chapters III and IV, and some properties of the new measures will be presented in Chapter VI.

3. An attempt will be made to employ the re-operationalized measure as an independent variable, to test a number of hypotheses relevant to cosmopolitanism and to professionalism. This attempt will establish whether data gathered by utilizing the new measure, and taken from a sample from a different population than was researched previously, will be consistent with cosmopolitan-local theory. The description of the sample will occupy Chapter V, and the specific hypotheses to be tested, along with the results of these tests, will comprise Chapter VII. Briefly, these hypotheses are predicated on the assumption that those who are Cosmopolitans (operationalized in this research as those high in ability and in willingness to leave their employing organization) will respond significantly differently to items or scales of items listed below than will Locals (those low in ability and willingness to leave). Cosmopolitans should score significantly higher on the following items, indicating greater agreement with the statement or suggesting a greater number of contacts or associations:

- 1B: I usually do not care to know a person well unless he is my equal in mentality, learning, and experience.
- 1D: The number of professional or occupational groups (excluding those in the company) in which I am active is . . .
- 2A: Too many people have to be consulted before you can do anything around here.
- 2C: There are many divisive cliques and groups in the company.

- 2D: Despite the company's emphasis on equality, social contacts among staff members of unequal rank are not frequent.
- 2E: One way to make sure that you have job security around here is to be well liked.
- 2F: People in this organization do not really trust each other enough.
- 2H: One important way in which people are "kept in line" around here is through gossip.
- 3B: If someone asked you to describe yourself, and you could tell only one thing about yourself, which of the following answers would you be most likely to give? (Cosmopolitans should choose, "I am a (profession or line of work)," while Locals should prefer, "I work for (name of company)."
- 3C: Would you prefer advancing . . . (Cosmopolitans should choose "through promotions into higher level functional specialization" while Locals should prefer "through promotions into management positions."
- 4A: (Do you favor) company encouragement to attend professional meetings?
- 4B: (Do you favor) company encouragement to further professional training by attending special lectures at academic institutions?
- 5A: A scale of items such as "could write it up for a technical journal," "new breakthrough in theory, concept, or methods," and "theoretical relevance of existing knowledge."

4. It will also be hypothesized that Cosmopolitans would score lower on the following items or scales of items, signifying lesser agreement or suggesting a lower number of contacts or associations:

- 1A: I like to meet and get to know as many people as I can.
- 1C: The number of religious, fraternal, and social groups in which I am active is . . .
- 2B: By and large regulations in the company are too lenient.
- 2G: It would seem that we need more supervision of employee behavior.
- 3A: A scale of items asking about the amount of influence held by the respondent.
- 5B: A scale of items such as "increase my chance for a promotion"

and "preference of my manager or superior."

After the measure has been utilized as an independent variable it will be employed as a moderating variable, to determine whether relationships between various organizational and leadership characteristics and measures of satisfaction are significantly moderated by cosmopolitanism. This section should provide information concerning the effectiveness of traditional systems of organizing, leadership and motivation upon employees with differing degrees of cosmopolitanism. It is obvious, however, from the specific hypotheses to be tested in this section (Chapter VIII) that the data generated are correlational in nature, and cannot permit direct statements of cause-effect relations to be made.

The hypotheses to be tested in this section assume that there will be significantly stronger relationships between independent and dependent variables for those high in cosmopolitanism (operationalized as being the product of respondents' ability and willingness to leave the organization scores) than for those who are low in cosmopolitanism. The variables are:

Independent

1. Respondent job depth
2. Respondent job scope
3. Leader Consideration
4. Leader Initiating Structure
5. Leader Upward Influence
6. Leader span of control
7. Leader technical competence

Dependent

1. Extrinsic satisfaction
2. Intrinsic satisfaction
3. Satisfaction with security
4. Satisfaction with autonomy
5. Satisfaction with pleasantness

The study will conclude by summarizing findings and drawing

general conclusions. Changes in the design of future studies in this area will also be recommended. This discussion will comprise Chapter IX.

II: REVIEW OF THE LITERATURE

The purpose of this chapter is to summarize and draw conclusions from the literature on Cosmopolitan-Local theory, and also to review the major issues and controversies surrounding the existence of "professionals" in organizations. It will be shown that there are many commonalities between "professionalism" and "cosmopolitan-local theory" which suggests that these variables be examined together. This review chapter will therefore define and differentiate these variables, and will then outline the general questions relevant to the area and the specific questions pertinent to this study.

The changes in workers and in work requirements discussed in Chapter I have necessitated a change in the definition of the word "professional." Originally utilized as a label for certain self-employed individuals only, the term has recently been expanded to include those workers who meet certain specified criteria, whether or not they are self-employed. An oft-used version of the new definition was stated by Strauss¹, who listed the criteria for professionalism as including the following:

1. The occupation requires expertise, that is, specialized knowledge and skills only obtainable through training, usually of a formal nature.
2. The professional claims the right to be autonomous, to decide how his function is to be performed.
3. The professional feels a commitment to his calling, to his

occupational specialty. He is likely to be a Cosmopolitan rather than a Local. These terms will be explained shortly.

4. He feels a responsibility to society for the maintenance of professional standards of work.

To meet this societal responsibility professionals usually organize within voluntary associations, one purpose of which is the exercise of self-control. Blau and Scott discuss the reasons for this:

Professional control appears to have two sources. First, as a result of the long period of training undergone by the practitioner, he is expected to have acquired a body of expert knowledge, and to have internalized a code of ethics which governs his professional conduct. Second, this self-control is supported by the external surveillance of his conduct by peers, who are in a position to see his work, who have the skills to judge his performance, and who, since they have a personal stake in the reputation of their profession, are motivated to exercise the necessary sanctions.²

The professional thus looks to his peer group for evaluation of his competence rather than to his hierarchical superior. While denying to his superior the ability and the right to judge his technical performance, however, he continues to judge his superior's performance, and the professional's perceptions of his leader's technical competence can strongly influence his satisfaction and performance. In fact, there is research to indicate that, the more "professional" a person, or the more "Cosmopolitan" he is, or the more he can be classified as "organizationally independent", the more he cares about the technical competence of his superior, and the more such competence is a determinant of the subordinate's satisfaction, morale, and performance.³

It is probably timely to introduce the terms "Local" and "Cosmopolitan" in a formal way, in order to show their relevance to the concept of professionalism. It was postulated by Strauss that professionals tend to be Cosmopolitans,⁴ and this was found to be the case in

the Blau and Scott study of social workers as well.⁵ However, if all professionals tend to be Cosmopolitans, it is not true that all Cosmopolitans tend to be professionals. To understand the differences, it is probably wise to trace the development of the Cosmopolitan-Local construct back to its research origin, the classic study by Merton.

Merton's study was based primarily upon interviews with eighty-six men and women from within the same small town. It was originally designed to learn about patterns of influence, but . . .

In response to the same set of queries, some influentials spoke wholly in terms of the local situation . . . whereas others managed to incorporate frequent references to matters far beyond the reaches of [the town] . . . It was this characteristic . . . patterning of response that led to the conception of two major types of influentials: the 'local' and the 'cosmopolitan' . . . Such seemingly diverse matters as geographic mobility, participation in networks of personal relations and in voluntary organizations . . . all these were found to be expressions of these major orientations toward the local community: Orientations ranging from virtually exclusive concern with the local area to central concern with the great world outside.⁶

Merton found that Locals were more likely to have lived in the town for a long period of time, were profoundly interested in meeting and getting to know many townspeople, had no desire to move away from the town, and were much more interested in local politics. The Locals were "great patriots", and spoke of their high loyalty to the local community. Cosmopolitans evidenced no such loyalty, with many of them indicating that they had plans to leave the town in the future. Cosmopolitans had been more mobile in the past, and believed more than did the Locals in their ability to do well in another community. They were also younger than their Local counterparts, and were better educated. However, Merton believes that "educational and occupational differences may contribute to the differences between the two types of influentials but they are not the source of these differences."⁷

Cosmopolitans also differ in their attitudes toward making friends. Rather than being concerned with meeting as many people as possible, they are more interested in getting together with people who are similar in education, training, and interests. This difference accounts for the different voluntary organizations which each type belonged to. Merton found that it was not so much that the Local belonged to more organizations, but that they tended to join the secret societies, fraternal organizations, and local service clubs, while the Cosmopolitans preferred the professional societies and hobby groups.

Probably the most important follow-up of the Merton study was one conducted by Gouldner, using a university population. Gouldner set forth a number of hypotheses which were consistent with the Merton results, and employed factor analysis of his data. He identified six separate groups of respondents, which he categorized into four types of Local (dedicated, true bureaucrat, elder, and homeguard) and two types of Cosmopolitan (outsiders and empire-builders). He found generally that Cosmopolitans knew fewer faculty members at the college, were better educated, and had published more. While both types of Cosmopolitan were "keeping an eye out" for good outside opportunities, the Outsider in particular claimed little influence, no real organizational loyalty, and small wish to remain. The Empire-builder also perceived outside alternatives to be good, but was at the same time jockeying for reward and status within the current organization.⁸

According to Gouldner, classification of respondents as either Cosmopolitan or Local could be made by considering three major criteria which were suggested, in varying degree, by the Merton research. These are:

1. Loyalty to the employing organization. Locals tend to be high in organizational loyalty, while Cosmopolitans do not.
2. Commitment to specialized role skills. Cosmopolitans should score considerably higher on this measure than Locals.
3. Reference group orientation. Locals tend to maintain an internal reference group orientation almost exclusively. Cosmopolitans may or may not be oriented toward the organization, but will always be oriented significantly toward the outside world.

It may prove useful to compare Gouldner's criteria for Cosmopolitan-Localism with Strauss's measurements of professionalism. McNaul did this, and concluded that commitment to specialized role skills may be considered as a test of Strauss's "expertise", while both organizational loyalty (if low) and reference group orientation (if an external one) may be included under Strauss's "commitment to calling."⁹

The study by Gouldner is important not only for the findings it generated, but because it served as a model for a number of subsequent experiments in the area of Cosmopolitan-Localism, or of professionalism. Studies by Delbecq and Elfner,¹⁰ by Pingry,¹¹ by Cudd,¹² by Ritti¹³, and by Davis¹⁴ all depended for their conceptual framework upon the Gouldner model. In addition, many other studies have been made which took their starting point from Gouldner, but which failed to include all elements of the Gouldner Cosmopolitan-Local criteria. Still others did not intentionally set out to replicate Gouldner's study, but did in fact employ most of the same variables.

There has been a great deal of discussion in the literature concerning the question of whether there must inevitably exist a

conflict between the professional or Cosmopolitan goals, on the one hand, and the organizational goals on the other. The great majority of opinions on this matter is that such conflict is inevitable. The following are a few of the statements made by researchers about this issue:

Because of the motivational pattern of typical professionals most successful professionals are not motivated to become administrators. Some would refuse any administrative role . . . because of their commitment to professional values and ties to professional groups, and because they feel they would not be capable of performing the administrative role successfully . . .¹⁵

The research staff is likely to be divided into cosmopolitans and locals. The former are oriented toward success as members of their profession, and their interest in the company is limited to its adequacy as a provider of facilities for them to pursue their professional work. Since they are productive, they may be valuable to the company, but such value is an almost accidental by-product of their work.¹⁶

Success in most organizations is defined as movement into management. This route, however, leads the professional away from the practice of his chosen specialty . . . A professional is said to care little for organizational matters that do not impinge upon his area of specialty. The ideology of professionalism, as stated, implies a trade-off between specialist autonomy and power in the organization.¹⁷

'Experts' must forego active pursuit of their specialty to ascend the company hierarchy because they are not identified as 'Company men' (i.e. loyal), because their complex skills and long formal training lead them to a commitment to their job rather than to the organization. Also, they are more marketable, can't easily be evaluated by other organizational members, and so seek the esteem of outsiders.¹⁸

Similar feelings have been voiced by Blau and Scott,¹⁹ Kornhauser,²⁰ Lee,²¹ Rothman and Perucci,²² Pelz and Andrews,²³ Marcson,²⁴ Whyte,²⁵ Orth,²⁶ and Scott.²⁷

One of those who takes the opposite viewpoint is Hall, who concluded that "an assumption of inherent conflict between the professional or the professional group and the employing organization appears to be unwarranted."²⁸ He based this opinion on a review of

several studies which indicated that conflict may or may not exist, depending upon the existing degree of bureaucratization.

In a study by Bennis et al., it was found that the relationship between professionalism and organizational loyalty was directly opposite to what most of the authors quoted above would have predicted. Specifically, the researchers concluded that . . .

The cosmopolitans did not refer to an external group, did maintain high in-group loyalty, and were motivated toward organizational commitment. The locals, on the other hand, were interested in external groups (nursing associations), showed lower loyalty than the cosmopolitans to the work group, and were less interested in developing professional skills.²⁹

Some post hoc explanations for these findings have been put forth by Bennis et al. and by Blau and Scott, and these will be taken up shortly. However, speaking more generally, it is possible that the question of professional-organization conflict inevitability really hinges on the type of organization and the kind of organizational policies and practices we are talking about. It is quite likely that, given an earnest and deliberate attempt to reconcile this conflict by all parties concerned, the effort may well be successful. In this connection, it is probably wise to briefly review some of the recommendations made by researchers for alleviating this conflict. It is plain that most of these recommendations have a common rationale. Thus Thornton suggests that the key to reconciliation is for the organization to consciously reaffirm the principles of professionalism, and he cites a number of studies which show that such tactics can be successful.³⁰ Marcson seconds this point, and believes that virtually total reconciliation can be accomplished.³¹ Glaser states that the issue hinges upon the firm's ability to make its goals and the professional's goals

coincide.³² Miller suggests ways by which this can be done, and specifically mentions the provision by the organization of more professional "incentives", such as the freedom to publish the results of their research, the awarding of funds to attend professional meetings, the provision of facilities and freedom to assist professionals in their research, the establishment of promotion policies which are based on demonstrated technical competence, and the opportunity to improve professional knowledge and skills.³³ Miller also suggests loosening the degree of control by the organization over the professional,³⁴ and this point is also referred to by Hall, who states that the key to prevention of professional-organizational conflict may be the lessening of bureaucratization.³⁵

This question of how to reconcile conflict issues in this area is really secondary to a much more fundamental question, one which all of the authors quoted above have implicitly addressed, but few of whom have overtly recognized: Can an organization, any organization, actually modify the attitudes of a Cosmopolitan, or a professional, or an organizational independent, to any great extent, or is this set of attitudes and predispositions substantially unalterable? Viewing the same question from a somewhat different vantage point, are these (Cosmopolitan) attitudes acquired after hire, in which case they may be specific to a particular set of organizational circumstances, or are they more the product of the individual's formal education and orientation, in which case they will likely come into play regardless of any set of organizational circumstances? The answers to these questions are clearly of considerable importance, as they will in large part determine the strategies to be employed by the organization. The issue

can be reduced in part to a choice between selection and training.

It would be advantageous, then, to briefly review the research and conclusions of those authors who, whether or not explicitly, have concerned themselves with this basic question. Let us begin by citing the opinions and reasons why many feel that the firm has no real control over this problem. The major determinant of professional, or Cosmopolitan values, according to most of these authors, is the amount of formal education and professional training. However, while there is substantial agreement that this education is the primary cause of Cosmopolitan attitudes, there is less agreement concerning the actual effect which such education has upon the recipients. Etzioni, for example, feels that the education alters the motivational patterns of professionals. He states that the education creates a commitment to professional values and fosters ties to professional groups.³⁶ Marcson agrees with this analysis, pointing out that the motivational patterns created by education and by professional training involve a striving for research achievements and peer recognition.³⁷

Miller agrees with the importance of education and professional training, but assigns different reasons for their importance. He views the long years of training in terms of "sunk cost" for the professional, claiming that the added length of training "represents a greater investment on the part of the professional. It is reasonable to assume that he will expect higher rewards from the organization in return for his services."³⁸ Miller is really introducing two consequences of long formal training, sunk cost and heightened expectations. The potency of sunk cost as a determinant of attitudes was illustrated by Grusky, who found that "the greater the [organizational] obstacles

the person has overcome in order to obtain the organization's rewards, the greater his commitment [to the organization].³⁹ It is therefore consistent to maintain that, the greater the obstacles (in the form of long and difficult education) the person has to overcome to become a professional, the greater will be his commitment to his profession.

The importance of heightened expectations for freedom and for organizational rewards which long education creates is underscored by Orth.⁴⁰ Furthermore, it is evident that highly educated and professionally trained people tend to be more marketable, and so are more readily able to act upon any organizational situation which does not meet these high expectations.

There is still another major consequence of possessing complex skills and long formal training, and this is that such people cannot easily be evaluated from within the employing organization. Gouldner makes this point eloquently:

Often, with regard to 'experts,' administrative superiors must depend upon persons outside the organization to select experts or to judge the performance of those already employed. This, in turn, means that the technical expert himself is often dependent upon persons outside the organization to validate his position within it . . . This not only disposes the expert to resist pressure for 'results' coming from his superiors, but it also makes him less vulnerable to control from those within and in command of the organization.⁴¹

Hughes⁴² and McNaul⁴³ also attribute considerable importance to the inability of organizations to internally evaluate their experts and professionals. An even more serious aspect of this problem is spotlighted by Scott, in his earlier-quoted contention that "professional workers are likely to perceive a discrepancy between the standards promulgated by their occupational groups and those adhered to by the host organization."⁴⁴ What he is really saying, then, is that not only are the

organizations in most cases unable to judge professional performance, they are also unwilling to judge professional performance on criteria which the professionals would accept as valid.

There is, on the other hand, considerable opinion on the side that the organization can have quite a lot to do with the establishment of Cosmopolitan or professional attitudes, or with their alteration if they already exist. Gouldner, for example, implicitly recognized that education, marketability, and internal inability to evaluate were not completely deterministic or attitude formation, when he differentiated the "Outsider" type of Cosmopolitan from the "Empire-BUILDER" type.⁴⁵ The first of these is, to be sure, someone over whom the organization has exerted and can exert no real influence. However, the second type, although possessed of the same long training and marketability as his "Outsider" counterpart, is nonetheless concerned, at least to a certain extent, with acquiring influence and being pleased by the organization. His decision of whether or not to leave the organization or to stay and seek internal rewards seems to be more largely determined by the relative merits of the internal versus the external chances for personal goal attainment than by any latent predisposition to behave in a certain manner. We may call this a kind of "market-place" orientation, and can find a good deal of support in the literature for its existence. In the previously-mentioned experiment by Bennis, for example, in which professionalism was found to vary positively with organizational commitment, it was hypothesized by Blau and Scott that the explanation for this surprising finding was that commitment was not so much a function of latent attitudes, or of the amount of visibility the job had to the outside community (as had been hypothesized by Bennis), but was rather

due to the fact that, in this case, the organization offered more opportunity for advancement than did the profession.⁴⁶ This belief that Cosmopolitans or professionals do not inherently adopt an external orientation, but in fact undertake a comparison between opportunities available in the firm and those available outside is also shared by Brown⁴⁷ and by Avery.⁴⁸ The essence of the belief is that a person will choose to be a Cosmopolitan only when he perceives that chances for personal goal attainment are better in the profession than they are in the organization.

Research also lends support to the view that, rather than being a predetermined set of attitudes which are essentially unalterable by the organization, Cosmopolitanism can to a large extent be influenced by it. Dewhirst, for example, made a study which found that, during the initial five-year period after employment, considerable socialization and change in attitudes on the part of professionals was accomplished by the two organizations studied.⁴⁹ Miller found that such organizationally-adjustable variables as type of supervisor and extent of company "encouragement" (which included elements of professional incentives mentioned earlier) to professionals had a significant effect upon the degree to which work alienation took place.⁵⁰ Finally, Lee found that, while scientists with high perceived professional prestige and low perceived organizational prestige claimed the lowest organizational identification, scientists with high professional prestige also claimed the most identification with the organization, provided that they also possessed high organizational prestige.⁵¹ As a result of this evidence, we seemingly must assume that organizations can create a climate in which even those individuals who would normally be considered

to be thoroughly Cosmopolitan can adopt an internal reference group and acquire an identification with the organization. The research indicates that the best way to achieve this is by reducing the amount of bureaucratization, lessening the degree of control, evaluating professionals on the same criteria which their peer group is using, and providing professional incentives, such as freedom to do research and publish the results, opportunity to attend professional meetings, etc.

To the extent that these organizational actions are successful, at least so far as altering potential Cosmopolitan attitudes is concerned, we must still concern ourselves with one final question, which is: After the modification of attitudes has taken place, what then is the orientation or predisposition of the Cosmopolitan employee? Is it, as some believe, that the converted Cosmopolitan will behave as a Local, or is it instead that the conversion process will in fact create a new, hybrid orientation category. This suggested possibility of hybrid categories brings up another, related question, one which has of late received a great deal of attention in the literature. Should the Cosmopolitan-Local construct be considered as a bipolar (either-or) one, or is it more useful to think in terms of more combinations of categories, for example, Cosmopolitan, Local, Cosmopolitan and Local as simultaneous descriptions of the same individual, and neither Cosmopolitan nor Local?

The first alternative, involving the conceptualization of the terms as being mutually exclusive and collectively exhaustive, is suggested by the writings of those who assumed a fundamental incompatibility between the Cosmopolitan, or professional, and the organization. Of late, however, the weight of evidence seems to have shifted in favor of the opposing belief, that such labels are neither mutually exclusive nor

collectively exhaustive. In fact, it is interesting that many of those who criticize the "simplistic" assumptions behind the either-or approach are the same authors who continue to insist upon the inherent conflict between organizational and professional goals. This seems to be an inconsistency on their part because, to the extent that it is possible to be at the same time a Cosmopolitan and a Local, there would seem to be no reason why an organization-professional conflict need inevitably exist. It seems reasonable that the professional could attend to his "Cosmopolitan needs" by maintaining an external reference group orientation and retaining a commitment to skills, and at the same time sense a degree of identification with the employing organization.

This position is not inconsistent with the original models of Merton or Gouldner, incidentally, although several researchers (for example, Goldberg et al.⁵²) have described these models as forcing a bipolar view of the construct. Merton for example stated that in his study the Cosmopolitan "has some interest in [the town] and must of course maintain a minimum of relations within the community since he, too, exerts influence there. But he is also oriented significantly to the world outside . . ." ⁵³ Gouldner, too, in his differentiation between the two types of Cosmopolitans, indicated his awareness that it was in fact possible for an individual to be simultaneously interested in both internal and external happenings and rewards.⁵⁴

The study by Goldberg et al., if it did not originate the idea that the bipolar Cosmopolitan-Local assumptions might be overly simplistic, is nonetheless an extremely important one. Starting out with the position that "there has been . . . a growing body of evidence to indicate that a bimodal distribution of orientations may not necessarily be

one of the 'givens' of research laboratories and that a researcher's orientation toward his profession can be independent of his orientation toward the organization for which he works,"⁵⁵ they studied questionnaire responses to learn of factors which went into decision-making on technical ideas in an industrial research and development laboratory. Factor analyzing the obtained data, they arrived at the following conclusion:

The theoretical consequence . . . is that a complete description of a person's orientation in this laboratory will require his categorization in a two-dimensional configuration. This implies a four-fold typology of orientations. In addition to those who rate the professional criteria considerably more important than organizational criteria, and vice-versa, there are two other types: those who have a 'complex' orientation in the sense that they take into account the relevance of an idea for both their personal gratifications and the success of the company and those who seem to have an indifferent or disinterested orientation in the sense of not emphasizing consideration of either professional gratification or organizational responsibility.⁵⁶

This view is also supported by Bennis,⁵⁷ by Blau and Scott,⁵⁸ by Kornhauser,⁵⁹ by Glaser,⁶⁰ by Avery,⁶¹ by Delbec and Elfner,⁶² by Grimes and Berger,⁶³ by Thornton,⁶⁴ and by Reissman.⁶⁵ While not all of them would agree that the measures of organizational identification and professional identification are actually independent, all would nevertheless agree that it is possible for the same man to be both a Cosmopolitan and a Local.

Goldner and Ritti offer an interesting explanation for the likely motivational forces which influence a Cosmopolitan to adopt a "complex" orientation. They claim that the Cosmopolitan's concern with achieving recognition from his professional colleagues is not at all inconsistent with the organizational norm that "success" can be defined as movement from the technical specialty into management. They point out that "if most of the 'good' people (defined in terms of competence in the speci-

ality) do, in fact, move up and the 'bad' ones are left behind, then moving up or staying behind will be defined by specialist groups as success or failure as they are defined by those in the rest of the organization."⁶⁶ With this we can agree, so long as the criteria chosen by the organization for selection of those who will move into management are judged to be valid by the specialist group. In summary, then, it is possible for the employing organization to alter the latent predisposition of professionals to behave as Cosmopolitans. This alteration will not always take the form of total conversion into Locals, but will usually succeed in establishing a "complex" orientation. This orientation will enable the professional to retain those aspects of his Cosmopolitan attitudes which give him satisfactions, but at the same time will allow the organization to establish a base of organizational loyalty and identification. This alteration of latent attitudes will only take effect, however, in cases where the organization makes a conscious and skillful attempt to integrate the professional goals with the ones of the firm. To the extent that the employing organization reduces structure and control, provides professional incentives, and employs evaluational criteria which are consonant with those employed by the professional peer group, such alteration of attitudes will take place. It is therefore fair to state that, based on these conclusions, there is no inevitability to the conflict which typically arises between professional and organization, because the concept of Cosmopolitan-Local (or professional-bureaucrat) is not a bipolar one. The aim of the organization, accordingly, should not be one of eradicating latent Cosmopolitan attitudes on the part of its professionals. Not only would such an attempt frequently prove unseccessful, but it would in many

cases not be advantageous either, since organizations obtain many benefits from having its professionals integrated into external reference groups. The aim of the organization should instead be one of inducing the professional to adopt a "complex" set of attitudes, within which a good degree of integration of individual and organizational goals can be attained.

In summary, then, the most important issues in the general areas of cosmopolitan-local theory and professionalism concern (a) whether the cosmopolitan-local (or professional-organization man) construct is "either-or" in nature, or whether the same person may simultaneously be both, or neither; (b) whether professional-cosmopolitan orientation makes conflict with the employing institution inevitable, or whether such conflict can be prevented or resolved without removing the professional from the bureaucratic setting; and (c) whether these professional-cosmopolitan orientations are formed prior to entry, and are for the most part unalterable, or whether the latent cosmopolitan compares organizational to professional opportunities and subsequently adopts either a professional or a "Company Man" orientation.

The present study will attempt to shed light on matters pertinent to the above questions, but obviously cannot deal with them all. The immediate focus of the present research will be upon the following questions:

1. Can the Cosmopolitan-Local construct be reoperationalized in such a way that the differentiating characteristics of cosmopolitans and locals noted by Merton, Gouldner, and others may be measured, but without resorting to the conceptual jumble of assorted variables which has typified much of the earlier research?

2. Can such a reoperationalization take into account the emerging consensus that it is not necessary for an individual to be either a cosmopolitan or a local; specifically, can a measuring instrument be constructed which does not arbitrarily force respondents into cosmopolitan-local categories which are mutually exclusive and collectively exhaustive?

3. Can the new measure be employed as a moderating variable in a meaningful way; specifically, do cosmopolitans expect and react differently to organizational and leadership practices which provide task complexity, autonomy, and intrinsic satisfaction, than do locals? The literature described earlier has suggested that it will be necessary for organizations to provide different tasks and control techniques for persons with "professional" value systems than for those who do not have such values. Do the data in this study indicate that such things as job scope, job depth, leader Consideration and Initiating Structure are associated with different levels of subordinate satisfaction for cosmopolitan-professionals than for locals?

These are the primary questions, suggested by the research literature, which the remaining chapters will try to answer.

III: A REOPERATIONALIZATION OF THE CONSTRUCT

When the Merton and Gouldner studies were inserted into the literature in 1957, it seemed likely that the way had been paved for extensive and meaningful research in the area. In fact, however, this has not occurred. We have not seen the Cosmopolitan-Local construct developed and extended with the intensity applied to other potentially important variables. No significant research "trail" has emerged which is in any way comparable to the Consideration-Structure studies, for example, or to the Equity Theory and Motivator-Hygiene Theory examinations, or to the Lawrence and Lorsch research. Even Merton and Gouldner seem to have abandoned the construct, or at least to have lost interest in its further development.

It was indicated earlier⁶⁷ that there have been a number of attempts to make use of the Gouldner model, and to include all three of the elements of that model, namely organizational loyalty, commitment to specialized role skills, and reference group orientation. A far greater number of studies, however, have chosen to use only part of the Gouldner model. In particular, a great many researchers have concerned themselves with the organizational loyalty, or identification, or commitment dimension only.

Speaking generally, an interesting dilemma seems to have arisen as a result of the differences in approach taken by different researchers. It is that, in many cases, the most significant results have been

obtained by those studies which have been least faithful to the original model. Many of those studies which worked only with organizational loyalty, for example, have produced findings which were both significant and important. The Classic study by Blau and Scott examined commitment to skills and reference group orientation, but did not directly include the organizational loyalty dimension as a defining characteristic, instead considering loyalty as a dependent variable.⁶⁸ The work of Abrahamson considers loyalty, along with commitment to skill, but not external reference group.⁶⁹ Finally, the work of Wigdor,⁷⁰ House and Wigdor,⁷¹ and House and Kerr⁷² establishes a measure of organizational independence by concentrating upon the respondent's ability to leave the organization. While this approach is consistent with the notion of treating Cosmopolitanism as a "market-place orientation," it is only indirectly related to the Gouldner model, and does not systematically consider all of the Merton variables either. Application of the Organizational Independence scale has on several occasions, however, produced interesting and significant findings.

If important results have often been obtained by studies which are not wholly consistent with the Merton and Gouldner models, it is also true that, for the most part, not very much of consequence has emerged from those efforts which more rigorously followed the Gouldner model. Grimes and Berger have spoken at length of the difficulties involved in operationalizing the construct, and have been critical of the Cosmopolitan-Local taxonomy itself. They argue that the construct is in its present form a vague, semantically-difficult content classification scheme, and that researchers have been guilty of using the labels for "operationally and conceptually different variables."⁷³ It is

therefore quite likely that the lack of impressive results which have accompanied many of those efforts which depended upon the entire Gouldner model can be explained by operational difficulties, and that there is no potential reason why the construct could not be reoperationalized so as to provide meaningful findings.

While there are many possible starting points for such an effort, the one chosen for this study is the existing Organizational Independence scale. This scale has consistently been found to have high reliability,⁷⁴ and has been employed successfully on several occasions, as was mentioned earlier. The four items which comprise the scale are presented below. It is easy to see that three of the items are primarily concerned with the respondent's perceived mobility and marketability, while the fourth is an attempt to obtain information about his reference group.

1. How applicable is your knowledge and ability on your present job to other firms?
(a) not at all, (b) slightly, (c) somewhat, (d) very applicable, (e) completely applicable
2. To what extent is it likely that you can leave your present job and obtain an equivalent one elsewhere?
(a) not at all, (b) slight, (c) some, (d) likely, (e) very likely
3. How useful is the knowledge you obtain on this job to you if you were to seek employment elsewhere?
(a) not at all, (b) little, (c) somewhat, (d) quite a bit, (e) very useful
4. To what extent is your social life connected with your job?
(a) very large, (b) large, (c) somewhat, (d) slightly, (e) not at all

It is possible to criticize the Organizational Independence scale from at least two perspectives. From the standpoint of the Gouldner model the scale is inadequate, as has been pointed out by

Grimes and Berger.⁷⁵ The items barely examine the reference group dimension, and overlook the commitment to skills and organizational loyalty aspects entirely. Furthermore, with the exception of a single item, the scale is really not a valid measure of "organizational independence" at all, but only of a segment of such independence which depends upon the respondent's ability to leave the organization, or more accurately of his perceptions of that ability. While it is obvious that ability to leave is an important component of organizational independence, it is by no means the whole story, because it does not consider the respondent's willingness to leave. This additional aspect must be considered if we are to be able to differentiate between two people, equally mobile, but with very different attitudes and ties to the organization.

What we are formally suggesting, then, is that by taking the existing Organizational Independence scale as a beginning point, we enlarge the instrument into a more extensive and comprehensive form, so as to take into account not only the respondent's ability to leave the employing organization, but his willingness to do so as well. By proceeding in this manner, we shall be linking the existing instrument to two of the better-known models in the current literature, and linking the two of these models to each other as well. We are speaking with reference to the Gouldner Cosmopolitan-Local construct, previously described, and to the Expectancy-Preference motivation theory popularized by Vroom.⁷⁶ Our aim in taking such an approach is that we can in essence add a second "layer" to the existing ability-to-leave base, and can therefore come closer to dealing with the complete Gouldner model. We are also, however, by moving slowly and adding merely a second "layer", attempting to guard against committing the type of error de-

scribed by Grimes and Berger, that of throwing together variables which do not belong together. Specifically then, by adding a willingness-to-leave-the-organization dimension we are providing a more accurate measure of "organizational independence," one which includes variables of organizational loyalty as well as reference orientation. In so far as it only indirectly examines commitment to specialized role skills, however, it still cannot be said to constitute a total application of the Gouldner model.

In summarizing the Expectancy-Preference theory presented by Vroom, Filley and House state that "any explanation of motivated behavior must take into account not only the ends that people hope to accomplish but the extent to which they believe that their own actions are instrumental in producing the outcomes they prefer."⁷⁷ Vroom suggests that the expectancy and preference variables should not be combined additively, but rather should be considered to have a multiplicative relationship, such that the decision to perform an action is a function of the person's preference for the outcome multiplied by his expectation that his performing the action will succeed in causing the outcome.⁷⁸

It is fairly easy to reword the ability and willingness-to-leave dimensions in terms of Vroom's variables. The original Organizational Independence scale, by obtaining information about perceived ability to leave the organization, is in actuality quantifying the Expectancy part of Vroom's theory because, to the extent that the respondent believes himself to be mobile and marketable, he is really stating that he feels that the action (to try to leave) has a high likelihood of resulting in the consequence (the successful leaving). What the existing scale fails to consider is the Preference part of the

equation, because it does not seek information concerning the strength of the desire to leave. The proposed addition of willingness-to-leave data is specifically designed to determine whether the idea of leaving is a positively or a negatively valent one, and to measure its intensity. The revised Organizational Independence scale will accordingly provide the required information for the Vroom theory, and will simultaneously bring the instrument sufficiently close to the Gouldner model so that hypotheses suggested by the model may be tested.

The revision of the Organizational Independence scale should serve some other purposes as well. One major advantage of obtaining information using the revised approach is that the data need not be used to create a bipolar (either-or) classification into Cosmopolitans and Locals. It was mentioned earlier that the weight of research opinion has shifted away from such a treatment, and we therefore agree with Grimes and Berger that "the empirical evidence indicates that the simplistic bipolar conceptualization of the construct should not be used."⁷⁹ The way that this revised instrument helps us to overcome the bipolar classification is that it can be linked to still another research classification, the one by Goldberg et al. It was mentioned earlier that the study by Goldberg et al. succeeded in factor analytically arriving at a four-fold typology of orientations which included, in addition to the high professional-concern low organizational-concern Cosmopolitan and the high organizational-concern low professional-concern Local, a Complex (oriented toward both organization and profession) and an Indifferent (oriented toward neither) orientation.

The way by which we can link the revised Organizational Independence scale to the Goldberg et al. classification system is by making

the following assumptions:

1. A person who on our scale indicates a high ability to leave and a high willingness to leave can in Goldberg et al. terms be said to have a Cosmopolitan orientation.

2. A person who perceives a low ability to leave and also claims to be unwilling to leave may be said to have a Local orientation.

3. Respondents indicating a high perceived ability to leave, but who report a low willingness to leave, may be said to have a Complex orientation. The rationale in this case is that their high marketability probably stems from high education level, or possession of high skills, or an external reference group orientation which provides the necessary visibility for mobility, or some combination of these. At the same time, low willingness to leave probably can be traced to some organizational tie (whether economic, social, or psychological), or some degree of identification or felt loyalty toward the organization. This simultaneous possession of Cosmopolitan and Local dimensions can then fairly be said to denote a Complex orientation.

4. Those who report an eagerness to leave, but who believe that they cannot successfully do so, may be considered to have an Indifferent orientation. The assumption is that their inability to leave stems from a "low score" on such Cosmopolitan characteristics as education, skill level, and external reference group support, while the high willingness to leave probably indicates the lack of organizational identification and loyalty which would be expected from a Local.

In sum, the examination of ability and willingness to leave the employing organization enables us to "plug in" data obtained into the Gouldner model, the Vroom theory, and the Goldberg et al. classification

typology, and should enable us to examine a wide range of hypotheses without unintentionally creating a conceptual jumble.

A final advantage which might be claimed for the approach is that it has a common-sense look about it. The previous scale tested the limits of credibility in the sense that it tended to classify together respondents who logically should have been assigned to different categories. The revised instrument, for example, would recognize that there is an important distinction to be made between two men of equal perceived marketability, but who differ substantially in their attitudes toward and identification with the organization. After all, if a marketable person feels an intense loyalty toward his firm, and has thirty years in the pension plan and important social ties to his coworkers, it is erroneous to classify him as being "organizationally independent." The fact of the matter is that, in the case of the person whose willingness to leave is zero, his ability to leave is of no consequence (or in Vroom's terms, any multiplicative relationship which contains a zero element will have a product of zero). Conversely, the long-term prisoner may express a rather keen willingness to leave the organization. His inability to do so, however, would again produce a Vroom product of near zero. This would mean then that any predispositions to behave as a purely Cosmopolitan type would be tempered by the condition of perceived immobility, and the prisoner would probably come to have a rather "indifferent" outlook.

IV: THE NEW SCALES

The Ability To Leave scale was established by taking the three items from the existing Organizational Independence scale which related to perceived marketability, and adding two additional items which requested information about the respondent's age and education. It is reasonable that a person's age be a factor in determining his perceived ability to leave the organization. At the higher age levels particularly, it is normally difficult to obtain an attractive offer from another firm. The question of age is also relevant to both the Merton and Gouldner models. Merton found, for example, that "all but two of the sixteen locals are over forty-five years of age, whereas fewer than two-thirds of the cosmopolitans are in this older age group."⁸⁰ Gouldner, while making no overt summary statement about age differences between the groups, did establish an "Elders" category of Locals, which contained most of the highest age-group respondents.⁸¹

It is also evident that data concerning education are pertinent to a determination of perceived ability to leave the organization. The 1972 professional unemployment rate notwithstanding, the educated person is still looked upon more favorably, as a general rule, than the high-school dropout, and the Ph.D. scientist continues to be thought of as a more valuable commodity than the B.S. engineer.

There has been some opposition in the literature to the inclusion of education data in ascertaining the level of professionalism. Pingry for example maintains that graduate training may be as much the result

of commitment to professional skills as the cause of such commitment, and he also reminds us that the last ten years has witnessed a dramatic increase in the number of people attending school in general, and graduate school in particular. Therefore, he reasons, the education variable is not as valid an indicator for older workers.⁸² We view this criticism, however, as being more a description of a possible cause of differences between the younger and older workers, rather than as a condemnation of the inclusion of education information. In order for a valid argument against employing education data to be sustained, it would seemingly be necessary to demonstrate that older workers, through some alternative mechanism or institution, could acquire or sustain the commitment to skills and attain the level of marketability which formal education appears to give to the younger workers.

In any case, the weight of opinion in the literature does support the inclusion of the education variable. The Blau and Scott study, which was the specific target for the Pingry criticisms, did employ a measure of education as an index to measure commitment to skills. However, they chose to measure graduate training in social work (since their population consisted of social workers) rather than total years of education, making the assumption that only in course work specifically concerned with their occupation could any indoctrination to commitment of skills take place.⁸³ Grimes and Berger explicitly state their belief in formal graduate training as a developer of such a commitment to skills,⁸⁴ and education was used in Grusky's study as well, to test his hypothesis that "less educated managers should show greater [organizational] commitment than managers possessing more formal education."⁸⁵ McNaul also lends support to this argument with the

following statement:

The level of professionalism, as determined by our attitude questionnaire, is statistically associated with the highest educational degree level in our sample. This is empirical verification, based on an independent measure, that the educational socialization process, particularly for advanced degrees, is a prime determinate of a person's level of professionalism.⁸⁶

Finally, the statement that education is one of the differentiating characteristics between Cosmopolitans and Locals is consistent with the view of Merton, who found this to be the case in his own study,⁸⁷ and with the position taken by Gouldner, who included education in his own research index of commitment to specialized role skills.⁸⁸

There has also been some opposition advanced in the literature to the belief that the potential Cosmopolitan compares the rewards available to him within the organization with those outside, and only becomes a Cosmopolitan in cases where the outside opportunities are perceived to be superior. We discussed earlier the position taken by those opposed to this view, who claimed instead that it was the education, training, and socialization incurred prior to employment which created a rigid Cosmopolitan orientation, leaving the organization no real chance for alteration. In order to justify inclusion of perceived mobility information in the Cosmopolitan-Local model, then, we must maintain that while such prior education and indoctrination will certainly create in a person a latent orientation, there nevertheless remains for the organization an opportunity to alter this predisposition and to supplement it with feelings of organizational loyalty and identification. If this argument is accepted, and the bulk of the research literature supports this position, then it is correct to be concerned with perceived differences between organizational and professional opportunities for personal goal attainment. Questions about the respondent's perceived market-

ability is high that the person will probably feel that opportunities elsewhere in the profession may rival or exceed those available in the organization.

The Ability To Leave scale is therefore comprised of the following items:⁸⁹

1. My present age is
Response category 1 = forty-five or over; category 2 = forty to forty-four; category 3 = thirty-five to thirty-nine; category 4 = under thirty-five.
2. The highest level of education I have attained is
Category 1 = high school diploma or less; category 2 = some college, no degree; category 3 = bachelor's degree; category 4 = master's or doctor's degree.
3. How applicable is your knowledge and ability on your present job to other firms?
Category 1 = not at all or slightly; category 2 = somewhat; category 3 = very; category 4 = completely.
4. To what extent is it likely that you can leave your present job and obtain an equivalent one elsewhere?
Category 1 = not at all or slight; category 2 = some; category 3 = likely; category 4 = very likely.
5. How useful is the knowledge you obtain on this job to you if you were to seek employment elsewhere?
Category 1 = not at all or little; category 2 = somewhat; category 3 = quite a bit; category 4 = very.

In order to derive a comprehensive index of Willingness To Leave the organization, the literature was reviewed to isolate variables pertinent to the Cosmopolitan-Local construct which were also relevant to willingness to leave, and to learn to what degree the employment of each variable was successful. This review identified four variables which seemed to have a bearing on the willingness dimension. They are: organizational commitment, identification, extent of social ties to other organizational members, and length of time with the organization. Each of these is relevant to the Gouldner model, and is also in part a determinant of willingness to leave, Each is not, however, generally agreed

upon to be independent of the others. Identification and commitment are often treated interchangeably, and years with the organization is frequently considered to be a barometer of commitment as well. It is hoped, therefore, that these items will be sufficiently correlated with one another that they may be treated as a scale, and can produce an acceptable reliability.

Many of the measures used by researchers to determine commitment to the organization can be seen upon close inspection to have deficiencies which would limit their usefulness in the present study. Some indices, for example, have yet to demonstrate that they can contribute to any findings of significance. Others contain implicit assumptions about the population studied, or appear to depend on unwarranted hypotheses about the Cosmopolitan-Local construct itself. Although we shall not deal at length with each of the measures not chosen for this study, we shall focus on one of these for purposes of illustration. The studies by Abrahamson included a questionnaire item which took the following form:

A scientist's loyalty should be with the organization employing him rather than with his scientific discipline.⁹⁰

While this is intended to be a measure of organizational loyalty or commitment, it contains the implicit assumption, discussed earlier, that there is some sort of a zero-sum game involved here, that loyalty to the employing organization must be at the expense of his commitment to professional values. While we indicated that this is not an uncommonly held belief, there is still no reason why such an assumption need be built into the data gathering mechanism because, to the extent that the assumption is unwarranted, how then are we to interpret a response of "strongly disagree"? Is the respondent really opting for professional

values, or is he questioning the mutual exclusiveness of the two? Because of this problem in interpretation, the item was not chosen for use in the present study.

To measure commitment to the organization, then, it was decided to employ two items which attempt to determine the respondent's propensity to leave the organization. This approach is consistent with the findings of Merton that "the local influentials are great local patriots and the thought of leaving [the town] seems seldom to come to mind . . . Not so with the cosmopolitans."⁹¹ It is also similar to Gouldner's approach, in that he attempted to determine loyalty by inquiring as to whether people would leave for a more prestigious college at the same, higher, or lower salaries.⁹² The same question was asked in the study by Cudd,⁹³ and an item very similar to it was included as one of the indices of loyalty in the Grusky study.⁹⁴ Finally, Blau and Scott concluded on the basis of their research that professionals were "somewhat more apt to be willing to leave and to expect to leave . . . than were bureaucrats."⁹⁵

To measure identification with the organization, two items were included. One of these was recommended by Patchen as being among the best tried.⁹⁶ This item has also been used successfully by Brown.⁹⁷ The other item is a new one, but is conceptually similar to the Patchen item.

To learn the extent of the respondent's social ties to other organizational members, two other items were included. One of these was taken from the old Organizational Independence scale, while the other is a new item which is similar to the Wigdor item. In addition to the inclusion of the "social ties" variable in the Wigdor and in the House

and Kerr research,⁹⁸ interest in this variable was also evidenced by Merton, who found that Locals were much more interested in meeting many townspeople and in establishing social relationships within the community,⁹⁹ and by Gouldner, who found that Cosmopolitans reported knowing fewer faculty members at their college, and felt that there were fewer people around with whom they could share professional interests.¹⁰⁰

The final component of willingness to leave, length of time with the organization, can also be traced back to the Merton study, since he found that Locals were more likely to have lived in the town for a long period of time than were Cosmopolitans.¹⁰¹ The variable has been used in studies by Grusky¹⁰² and by Pingry¹⁰³ as an index of organizational loyalty. It is included in the Willingness To Leave scale not only because it may be said to measure loyalty, but also because it can reveal information about the respondent's "sunk cost" in the organization. Whether we are speaking of an economic investment in the pension plan, or a more subtle investment in "goodwill" of the organizational higher-ups, it is nonetheless true that a person with long service would be expected to be somewhat less willing to leave than would a counterpart with no such sunk cost.

The following items will therefore comprise the Willingness To Leave scale:¹⁰⁴

1. Which of the following circumstances express your attitude about staying with the company?
 - category 1 = I would not consider leaving under any circumstances;
 - category 2 = I would leave for promotion and 20% increase in pay;
 - category 3 = I would leave for same kind of job, 20% increase in pay;
 - category 4 = I would leave for same kind of job, same pay, more challenge, or I would leave for same kind

of job, same pay.

2. What are your plans to stay with the company?

- category 1 = I would like to stay all my working life;
- category 2 = I would leave only for an exceptional opportunity;
- category 3 = I will leave if something better turns up;
- category 4 = I expect to leave as soon as possible.

3. How would you feel if you heard (or read about) someone criticizing your Company or Company products, or comparing your Company unfavorably to other Companies?

- category 1 = It would bother me quite a bit. I am anxious to have people think well of the Company;
- category 2 = Null;
- category 3 = It would bother me a bit;
- category 4 = It would not really bother me. I do not care much what other people think of the Company.

4. (How high is) your pride in working for the Company?

Response categories are numerical, ranging from very low to very high.

5. To what extent is your social life connected with your job?

- category 1 = very large or large;
- category 2 = somewhat;
- category 3 = slightly;
- category 4 = not at all.

6. The number of people in the company I see socially at least once a month is . . .

- category 1 = ten or more;
- category 2 = six to nine;
- category 3 = three to five;
- category 4 = zero to two.

7. I have been with the company . . .

- category 1 = ten years or more;
- category 2 = six to nine years;
- category 3 = three to five years;
- category 4 = two years or less.

V: THE SAMPLE

Data for the present study were collected by administering a questionnaire to all salaried personnel in the Research and Development Division of a large Midwestern heavy equipment manufacturing company. Since the company strongly encouraged employee participation in the study and made available space and time during the work day for completion of the instrument, 100% of the employees who were in attendance during the time of the survey actually completed the instrument. Of the 198 salaried personnel who completed the questionnaire, usable information was obtained from 196. All of the completed instruments were given directly to the researchers, who personally administered each administration "session." Since no person employed by the company was permitted to handle the questionnaires after completion, and since no respondent names were asked for, it was apparent that the pledge of anonymity given by the researchers was respected and believed.

The respondents were similar in background and in task requirements to many of the samples reviewed above, in that they formed a mixture of people who could be classified as scientists and others who were engineers. Twenty-two percent of the sample had earned at least a Master's degree, and a few held a Ph.D. Most of these with advanced degrees had at least one degree in engineering or in a physical science. On the other hand, 23% of the respondents had less than a Bachelor's degree. The most common level of education, then was the Bachelor's degree and nothing more, and 55% fell into this category.

While the organization itself is located in the midwest, it has many plants and field offices throughout the United States and the rest of the world, and does a world-wide business. In addition, the company traditionally selects personnel from many different areas of the country. It has had until the last few years a particularly vigorous recruitment program for attaining employees who have just completed graduate work at the best Midwestern and Eastern colleges, and although this program has now slackened somewhat, it succeeded in placing many non-Midwesterners in positions with the company. The national and international reputation enjoyed by the company has also aided in this regard.

For a number of reasons, then, this site was considered to be a fine opportunity to test the hypotheses suggested by the Cosmopolitan-Local and professionalism literature. Speaking practically, the organization provided a large number of research and development personnel, and this type employee has always been considered to be an outstanding subject for this kind of research. In addition, all of the R&D employees were located at the same place, which simplified administration and also reduced the number of confounding variables which would have to be taken into account. The unusual receptiveness to the study by top management was also a factor, in that it provided the organizational legitimacy necessary to assure an almost perfect response rate. Then too, the high emphasis placed upon quality of education by the firm meant that, to the extent that such education instills certain attitudes and causes adoption of latent predispositions to think and behave in certain ways, we could expect to find evidence of these among the division's employees. Finally, the relatively broad abilities and backgrounds of the people

surveyed seemed to increase the likelihood that any meaningful findings obtained by the study could be more readily generalized to other populations.

Data obtained from a 30% random sample of all employees in Production division were also employed in this study, in order to provide a comparative base with which to contrast the research and development data. The specific uses made of these data will be described in a later chapter. All of the ground rules and procedures which were true of the R&D data collection were also carried out for Production; that is, the company made time and space available and strongly encouraged participation, and the researchers personally administered the questionnaire completion session and took all data away with them, so that anonymity could be guaranteed. Of the eighty employees who were selected as part of the random sample of Production and who were present on the day of the administration, seventy-nine provided usable information.

VI: PROPERTIES OF THE SCALES

Following completion of the questionnaire by both the Production and the Research and Development personnel, reliabilities for the Ability To Leave and Willingness To Leave scales were calculated, using a Spearman-Brown Prophecy Formula Correction¹⁰⁵ of the Kuder Richardson Formula Twenty. The scales produced the following reliabilities:

Ability To Leave, R&D sample	.562
Ability To Leave, Production sample	.688
Willingness To Leave, R&D sample	.618
Willingness To Leave, Production sample	.621

These data suggest that the two scales do link together common elements of dimensions which had in some cases been considered by the literature to be distinct. While not especially high, the reliabilities are adequate for the use of the scales as moderators, and also enable certain predictions to be made by employing them directly. Although the reliability program employed has the capability of removing the weakest item from the scale and recalculating reliability based on the shortened scale, it was found that in neither case did this procedure produce a higher reliability. The five-item Ability scale and the seven-item Willingness scale were therefore left intact.

A possible problem was anticipated in the area of Ability-Willingness scale independence. The primary reason for this anticipation was that the basic Expectancy-Preference model proposed by Vroom, which serves as a conceptual base for the Ability-Willingness construct, is itself subject to the criticism that Expectancy and Preference are not

independent. One possible consequence of dissonance theory is that people tend to reduce the importance to them of positively valent outcomes which they see as unlikely to be attained.¹⁰⁶ In terms of Vroom's model, dissonance theory would predict that a low expectancy would influence the intensity of felt preference for the outcome. In terms of the proposed model for this study, the fear was that any perceived inability to leave the employing organization might be reflected in a lower reported willingness to do so. This situation, then, would cause the measures to vary together, and would impair the usefulness of the two-by-two typology that had been proposed. To determine the extent to which the two scales were dependent, the product-moment correlation coefficient was calculated, and was found to be +.09. While the sign indicates that the scales do vary in the expected direction, the low magnitude of the correlation indicates that, for the purposes of this study, the scales may be thought of as being essentially independent.

Another calculation which was believed to be of importance concerned the difference between the scores obtained by Production respondents and that of the Research and Development personnel. In ascribing meaning to this statistic we are not losing sight of Merton's warning that the same occupation could be occupied by either a Cosmopolitan or a Local, and would have a different role for each of them.¹⁰⁷ At the same time, we are in agreement with McNaul's assumption that there will tend to be a larger number of individuals high on professionalism in research units than would be found in production functions.¹⁰⁸ Consequently, it was hypothesized that there would be a significant difference in the scores obtained from the two samples. Specifically, the prediction was made that the score of all R&D respondents, on both the

Ability and Willingness scales, would be significantly higher than those scores made by the Production respondents. The underlying rationale for this hypothesis is that Research and Development will probably contain a relatively higher number of those employees who, because of high formal education and technical skills, perceive themselves to be very able to leave the organization and who also, due to professional values, external reference group orientation and low organizational loyalty, will report a high willingness to leave as well.

To test the hypothesis the Mann-Whitney Test of sample differences was employed, and the following results were obtained:

For the Ability To Leave scale:

$U = 5,486$ $Z = 3.78$ level of significance, $p .0001$

For the Willingness To Leave scale:

$U = 5,365.5$ $Z = 4.08$ level of significance, $p .00003$

It can be seen that the Ability and Willingness measures were found to discriminate at a high level of significance between two samples which, on the basis of theory and some research evidence, should have scored substantially different on measures of professionalism, or Cosmopolitan-Localism.

VII: ABILITY-WILLINGNESS AS AN INDEPENDENT VARIABLE

The original Organizational Independence scale was found by House and Wigdor "to differentiate significantly between a sample of employees in the firm studied who, on the basis of their employment and educational history, could be classified as Cosmopolitans and a second sample who could be classified as Locals.¹⁰⁹ The revised instrument has been shown (in Chapter VI) to have moderately high reliability, and Ability To Leave has been found to be substantially independent of Willingness To Leave the organization. In addition, the enlarged measure has successfully distinguished between production and R&D samples at a high level of significance.

The focus of this chapter will be to test a number of hypotheses first put forth by Merton, Gouldner, and others who have participated in the development of Cosmopolitan-Local theory. These early theorists employed the Cosmopolitan-Local construct as an independent variable, utilizing as dependent variables such things as perceived influence, type of voluntary organizations belonged to, and attitudes toward other individuals and toward the employing organization.

Several of these hypotheses stem from the research of Merton, described earlier. For example, he found that while Locals sought to know as many people as possible, Cosmopolitans were much more selective. Making use of his interview data, Merton claimed that "the contrast with the prevailing attitudes of local influentials is brought out in these remarks by cosmopolitan influentials: I don't care to know people

unless there is something to the person . . . I like to meet people of equal mentality, learning, and experience.*¹¹⁰

Perhaps stemming from this difference in attitudes, Cosmopolitans and Locals were also found to differ in their participation in voluntary organizations. Merton discussed this finding in the following way:

It is not so much that the cosmopolitans belong to more organizations than the locals . . . It is, rather, that they belong to different types of organizations . . . The local influentials evidently crowd into those organizations which are largely designed for 'making contacts,' for establishing personal ties. Thus, they are found largely in the secret societies (Masons), fraternal organizations (Elks), and local service clubs . . . The cosmopolitans, on the other hand, tend to belong to those organizations in which they can exercise their special skills and knowledge. They are found in professional societies and in hobby groups.¹¹¹

In order to test the relevance of Merton's findings to the present study, the following items were included in the questionnaire:¹¹²

I like to meet and get to know as many people as I can.
(true or false)

I usually do not care to know a person well unless he is my equal in mentality, learning, and experience.
(true or false)

The number of religious, fraternal, and social groups in which I am active is (none, one, two, three, etc.)

The number of occupational or professional groups (excluding those in the company) in which I am active is (none, one, two, three, etc.)

It was hypothesized that:

- 1A: Low-ability low-willingness respondents would score significantly higher on the first item than would high-ability high-willingness respondents.
- 1B: High-high individuals would score significantly higher on the second item than would low-low ones.
- 1C: Low-low subjects would belong to significantly more social, fraternal, and religious groups than would high-high subjects.
- 1D: High-high respondents would belong to significantly more occupational and professional groups than would low-low respondents.

1E: The total number of groups (of all kinds) belonged to would not significantly vary by response on the ability-willingness measures.

To test the first four hypotheses the Mann-Whitney U Test was employed.¹¹³ The results showed that in all four cases the direction of the difference was as predicted. That is, high-high respondents did score higher on hypotheses 1B and 1D, while low-low subjects scored higher on 1A and 1C. However, the results obtained for hypotheses 1A and 1B were not significant. The reported differences for hypothesis 1C were significant at the .05 level, while for hypothesis 1D the differences were significant at the .01 level. Table 1 contains the relevant statistics concerning sample size, value of U, value of Z, and P for these and all other Mann-Whitney U tests of hypotheses discussed in this chapter.

To test hypothesis 1E, that low-low respondents would not belong to significantly more or significantly fewer organizations than would high-high respondents, a comparison of the arithmetic mean scores for each group was made. Such a comparison was made possible by the asking for information in such a way that actual numbers concerning organizations belonged to was obtained. The mean score for the thirty-seven low-low respondents was 3.08 voluntary organizations belonged to, comprising 2.32 social, religious, and fraternal organizations, and 0.76 professional and occupational organizations. For high-high respondents the equivalent mean scores were 1.78 social, religious, and fraternal organizations and 1.35 professional and occupational groups. In total the forty high-high respondents belonged to 3.13 organizations. the difference in mean scores, 0.05, is clearly not significant, thus bolstering Merton's contention that while the type of organizations belonged to will vary, the overall difference in number of organizations

belonged to will likely be small.

Another set of hypotheses were suggested by the research study conducted by Gouldner, described earlier. As part of this study he factor analyzed a large number of items, in order to learn more about the characteristic attitudes of Cosmopolitans and Locals. Eight of the Gouldner items which discriminated between the two groups at a high level of significance were incorporated into the present study, and it was hypothesized that the high-high respondents would reply to them as the Gouldner Cosmopolitans did in his study, with the low-low group answering in a manner consistent with Gouldner's Locals. These hypotheses, then, are as follows:

- 2A: High-high respondents should score significantly higher on the following item:¹¹⁴
Too many people have to be consulted before you can do anything around here.
- 2B: Low-low respondents should score significantly higher on the following item:
By and large regulations in the company are too lenient.
- 2C: High-high respondents should score significantly higher on the following item:
There are many divisive cliques and groups in the company.
- 2D: High-high respondents should score significantly higher on the following item:
Despite the company's emphasis on equality, social contacts among staff members of different ranks are not frequent.
- 2E: High-high respondents should score significantly higher on the following item:
One way to make sure that you have job security here is to be well liked.
- 2F: High-high respondents should score significantly higher on the following item:
People in this organization do not really trust each other enough.
- 2G: Low-low respondents should score significantly higher on the following item:

It would seem that we need more supervision of employee behavior.

2H: High-high respondents should score significantly higher on the following item:

One important way in which people are "kept in line" around here is through gossip.

Mann-Whitney U tests were again employed to determine the level of significance of the results, and these are also presented in Table 1. In general, these results tend to support the theoretical contention that ability-willingness scores can be used as a surrogate for Cosmopolitan-Local measures. Only one of the eight items yielded scores which were not in the direction predicted, and this item (presented as hypothesis 2C) did not produce a significant difference. Of the seven items which did yield differences in the expected direction, hypotheses 2E and 2F were confirmed at the .01 level of significance and hypothesis 2B was confirmed at the .05 level. In addition, both hypotheses 2A and 2D were confirmed at a level which approached significance (that is, were significant at the .058 and .075 levels, respectively).

Several other items were included in the questionnaire as a result of Gouldner's research. These items are not identical to any of his, but are consistent with his investigation. Two of the items attempted to test Gouldner's contention that Cosmopolitans feel that they have considerably less influence within the organization than do Locals. To measure the amount of perceived influence a scale was constructed, comprised of the following two items:

1. I don't have much say or influence with my co-workers.
2. I don't have much say or influence with higher management.¹¹⁵

Kuder-Richardson reliability for the scale was computed to be .676.

Mann-Whitney tests were once again utilized to determine whether

the "Influence" scale scores of the high-high group were significantly different from the low-low group. Hypothesis 3A was formulated on the assumption that the low-ability low-willingness group would score significantly lower on this scale than would the high-high group (since the scale as worded really refers to perceived lack of influence achieved). While complete results of the Mann-Whitney test are included in Table 1, in general it can be said that the scale did produce differences which were in the expected direction. Although technically the hypothesis cannot be said to be confirmed, the results were almost significant at the .05 level.

Another of the items which were suggested by Gouldner's research served as the rationale for hypothesis 3B. Actually employed by Patchen,¹¹⁶ this item is supposed to be a good measuring device of organizational identification. As such, it should reasonably be expected to differentiate between Cosmopolitans and Locals, since Gouldner has defined one of the three characteristics of the Local to be organizational loyalty, as opposed to the loyalty to the profession professed by the Cosmopolitan. Hypothesis 3B therefore stated that the low-low group would score significantly lower on the following question than would the high-high group.

If someone asked you to describe yourself, and you could tell only one thing about yourself, which of the following answers would you be most likely to give?

Three of the five choices involved church affiliation, state or origin, and school graduated from. These were scored neutrally as a 2. A 1 was scored for those who replied "I work for (this company)", while a 3 was scored for the response "I am a (occupation or type of work)."¹¹⁷

Use of the Mann-Whitney U test did in fact show that the low-

ability low-willingness group were much more likely to state that they would give their company affiliation, while those in the high-high category claimed that they would identify themselves by referencing their occupation or profession. The difference in response was significant at the .01 level. More complete information is presented in Table 1.

Another item based on this same general theme was included in the questionnaire in the belief that it would produce the same type of response as the previous item did. Hypothesis 3C was therefore that respondents in the low-low group would score significantly lower on the following item:¹¹⁸

Would you prefer advancing: 1. through promotions in management positions, or 2. through promotions into higher level functional specialization (e.g. production analysis, market research, financial analysis, personnel).

In fact, the Mann-Whitney U test revealed results contrary to those hypothesized. While not significant, the findings indicated that those who indicated a high-ability and a high-willingness to leave the company were more interested in abandoning their technical specialties and advancing into general management positions than were those with low-low scores. This finding seems to be clearly at odds with Gouldner's contention that "commitment to skills" is one of the defining characteristics of the Cosmopolitan. However, a post hoc reexamination of the item suggests that the question may not be a good one, at least so far as determining general predispositions and attitudes is concerned. It is possible that this question is to a greater extent than the others "company specific." In the firm studied, for example, there was no official existence of a "dual hierarchy" or "professional ladder," where scientists and other technical specialists might be able to advance in the hierarchy without leaving their special areas of competence.¹¹⁹ Neither

was it evident that the firm was making any effort to employ evaluation criteria which were consistent with and supportive of criteria utilized by external reference groups, such as was suggested by Scott.¹²⁰ Finally, we must keep in mind the view of Goldner and Ritti, stated earlier, that the professional desire to obtain colleageal recognition is in no way incompatible with his wish to move into general management.¹²¹

The research findings of Miller served as the basis for two additional hypotheses. In his examination of causes of alienation from work among scientists and engineers, he hypothesized that "alienation from work will be . . . negatively associated with number of professional incentives."¹²² His hypothesis was generally confirmed in his study and two of the items which made up Miller's Company Encouragement scale were utilized in the current study. However, whereas Miller asked respondents to indicate to what extent the items were true statements, the present study sought to inquire to what extent the respondents desired the statements to be true.¹²³ Hypothesis 4A was therefore that high-ability high-willinness respondents would be significantly more interested in such professional encouragements, and would therefore score higher on the following item:

Company encouragement to attend professional meetings.

Hypothesis 4B stated that high-high respondents would score significantly higher on the following item:

Company encouragement to further professional training by attending special lectures at academic institutions.

The Mann-Whitney U tests revealed that both of the items produced differences that were in the expected direction. Hypothesis 4B was confirmed at the .05 level. While hypothesis 4A was not confirmed, the findings can be said to approach significance (that is, they are signi-

ficant at the .065 level). More complete data is presented in Table 1.

A final pair of hypotheses was formulated upon the work of Goldberg et al., discussed earlier. Their work included administration of a questionnaire which included the following item:

When you evaluate your own ideas, the ones you thought up, how much importance do you usually give the following considerations in deciding whether or not the idea is a good one? (If your job does not usually involve originating ideas, answer the items below in terms of the amount of importance you give them when you evaluate other people's ideas.)

This item was incorporated into the current study, and ten of the possible responses provided by Goldberg et al. were retained. Five of these are choices which should appeal to a Local, and the other five should be preferred by Cosmopolitans. The ten possible responses were therefore assembled into two scales, labelled "Cosmo Decision Factors" and "Local Decision Factors." The Cosmo scale was comprised of the following items:¹²⁴

Intrinsic interest I have in special technical field
 Theoretical relevance of existing knowledge
 Enhance my reputation in a special technical field
 New breakthrough in theory, concepts, or methods
 Could write an article on it for a technical or professional journal

The Kuder-Richardson reliability for the scale was .740.

The Local Decision Factors scale was made up of the following items:

Interest and approval of colleagues and co-workers
 Improve or maintain company status in the eyes of its customers
 Fits into company product line
 Protecting existing markets

Will help achieve company's goal

The Kuder-Richardson reliability for this scale was .767.

These scales were used to form the following hypotheses:

5A: High-ability high-willingness respondents will score significantly higher on the "Cosmo Decision Factors" scale.

5B: Low-low respondents will score significantly higher on the "Local Decision Factors" scale.

While both scales produced results which were in the expected direction, the Mann-Whitney U test revealed that the Cosmo Decision Factors scale utilized in hypothesis 5A did not yield significant differences. Hypothesis 5B, on the other hand, was confirmed at the .01 level of significance. More complete information is provided in Table 1.

In summary, twenty hypotheses were formulated on the basis of existing Cosmopolitan-Local theory. Eighteen of the twenty yielded results which were in the direction that was predicted. Of the seventeen hypotheses which did correctly forecast direction and which were tested by means of the Mann-Whitney U, five were confirmed at the .01 level of significance and three more at the .05 level. Four other hypotheses may be said to have been confirmed at a level which approaches significance (that is, were significant at the .075 level). In total then, only five of the seventeen were not significant at the .075 level.

The employment of Ability and Willingness To Leave data has therefore enabled us to make a number of observations about the differences between respondents who are high in ability and willingness and those who are low. First, we have received strong confirmation that, while the two groups do not greatly differ as to the total number of organizations their members voluntarily belong to, differences in perceptions about ability and willingness to leave are strongly associated

with differences in the types of organizations joined.

The current study has also enabled us to accumulate new evidence in support of Merton's assertion the Cosmopolitans tended to be more critical of the local community than did Locals, and has substantiated Gouldner's results showing that Cosmopolitans were critical of other organizational members and of the excessive (as they saw it) degree to which the organization sought to control its members. Gouldner's Locals, on the other hand, were of the opposite opinion, believing that the organization was too lax with members, and should attempt to control activities to a greater extent. In the current study, high-high respondents thought that the following statements were true to a greater extent than did low-low subjects:

Too many people have to be consulted before you can do anything around here. (This was tested as hypothesis 2A, and approached significance).

Despite the company's emphasis on equality, social contacts among staff members of different ranks are not frequent. (This was hypothesis 2D, and results approached significance).

One way to make sure that you have job security around here is to be well liked. (This was hypothesis 2E, and was significant at the .01 level).

People in this organization do not really trust each other enough. (This was hypothesis 2F, and was significant at the .01 level).

Low-low respondents, on the other hand, thought the following statement to be more accurate than did high-high subjects:

By and large, regulations in the company are too lenient. (This was hypothesis 2B, and was confirmed at the .05 level).

Another interesting result which emerged from the current study was that high-ability high-willingness respondents claimed to be much more interested in what Miller called "professional encouragements" than were the low-low group. Hypothesis 4A, which concerned the extent to

which the company ought to encourage employees to attend professional meetings, differentiated between high-high and low-low categories at a level which approached significance. Hypothesis 4B, which predicted that high-high subjects would be more interested in the firm encouraging attendance at special lectures, was confirmed at the .05 level. Taken together, these findings offer support for Miller's contention that one method by which typical professional versus bureaucratic conflict might be reduced would be for the organization to provide professionals with the kinds of rewards they value. These results also have relevance for the broader issue introduced earlier in the paper, which concerned the question of the inevitability of conflict between the professional and the organization.¹²⁵

The confirmation (at the .01 level) of hypothesis 5B, which predicted that low-low subjects would respond more favorably to the Local Decision Factors scale, also has some interesting implications for organizational theory. It appears from this data that perceptions about ability and willingness to leave the organization are strongly associated with the factors individuals consider when making or evaluating decisions. Specifically, low-low respondents claim to be much more interested than do those in the high-high category in such matters as company image, products, and goals. It appears, then, that other costs besides those of selection and training may accrue to a firm which employs high-ability high-willingness individuals. In addition to the necessity to continually replace and retrain those highly able and willing to leave employees who actually depart, the organization must also apparently face up to the fact that such high-high employees will make decisions on a day-to-day basis which may not at all be in the organi-

zation's best interests. By admitting that they do not regularly include the company's welfare among their decision criteria, such employees underscore the tremendous difficulties which the organization must somehow overcome, if it is to somehow survive and be successful at a time when highly able and willing to leave workers comprise a substantial part of the work force.

VIII: ABILITY AND WILLINGNESS TO LEAVE
AS A MODERATING VARIABLE

This chapter examines the relationships between a number of independent and dependent variables, with particular reference to the moderating effects of ability and willingness to leave the employing organization. Each of the independent variables is described below:

Job Scope.--The five scale items inquire about the amount of repetition in the respondent's daily work load. The specific items are:

How repetitious are your duties:

How similar are the tasks you perform in a typical work day?

To what extent is the major proportion of your tasks repetitive?

What is the average time it takes for you to complete a typical assignment?

How often are you required to perform tasks which previously had not been part of your job responsibility?

Five response choices were offered on each item. For example, the choices for the first question included: Very Little; Some; Quite a Bit; Very much; and Almost Completely. For the Kuder-Richardson reliabilities for this and other scales employed, see Table 2.

Job Depth.--Seven items comprise this scale, and are concerned with the extent to which the respondent's job is independent of other people. The items are as follows:

To what extent are you able to act independently of your superior in performing your job?

How much must you rely on directions from others in performing

routine tasks?

How much are you required to depend on your superior for the nonfinancial resources (information, supplies, etc.) necessary for the performance of your job?

How often are you given assignments requiring you to search for a solution without directions from your superior?

How often is it necessary for you to seek instructions from others prior to beginning new assignments?

To what extent do the resources (personnel, budget, etc.) you receive depend upon your superiors?

Five response choices, of a kind similar to those for Job Scope, were offered respondents.¹²⁶

Leader Consideration.--The ten items on this scale are part of the Leader Behavior Description Questionnaire (LBDQ) developed for the Ohio State University leadership studies.¹²⁷ Data from the LBDQ are obtained by asking the respondents to determine whether the behavior described is "always," "often," "sometimes," "seldom," or "never" true of their immediate superior. The items comprising the Leader Consideration scale are as follows:

He is friendly and approachable.

He does little things to make it pleasant to be a member of the group.

He puts suggestions made by the group into operation.

He treats all group members as his equals.

He gives advance notice of changes.

He keeps to himself.

He looks out for the personal welfare of group members.

He is willing to make changes.

He refuses to explain his actions.

He acts without consulting the group.

In general, it can be seen that the Consideration scale attempts to measure the extent to which the leader is perceived by his subordinates as being considerate of their feelings and respectful of their ideas.

Leader Initiating Structure.--This scale has ten items also, and reflects the degree to which subordinates feel that the leader structures their roles and tasks so as to achieve goals. The scale is also part of the LBDQ, and has the following items:

- He lets group members know what is expected of them.
- He encourages the use of uniform procedures.
- He tries out his ideas in the group.
- He makes his attitudes clear to the group.
- He decides what shall be done and how it shall be done.
- He assigns group members to particular tasks.
- He makes sure that his part in the group is understood by group members.
- He schedules the work to be done.
- He maintains definite standards of performance.
- He asks that group members follow standard rules and regulations.

Leader Upward Influence.--This scale contains the seven items of the LBDQ Superior Orientation scale that deals specifically with upward influence. Response choices are the same as for the other LBDQ scales, and the items are:

- He gets along well with the people above him.
- He keeps the group in good standing with higher authority.
- His superiors act favorably on most of his suggestions.
- He gets his superiors to act for the welfare of the group members.

His word carries weight with his superiors.

He gets what he asks for from his superiors.

He maintains cordial relations with superiors.

Leader Span of Control.--A single question was utilized, which asked, "How many people report directly to your immediate supervisor?"¹²⁸

Leader Technical Competence.--Respondents were asked to evaluate their immediate superiors' "expertness in their particular field, knowledge of the projects and processes for which they are responsible, and knowledge and skill in their specialty." Response choices were from one (not very competent) to seven (extremely competent).¹²⁹

As can be seen from Table 2, all of the scales employed as independent variables had reliabilities of better than .63. The LBDQ scales (Consideration, Initiating Structure, and the ten item Superior Orientation scale) have been refined through factor analysis, and have been utilized in a great many research studies across numerous populations. The Job Scope, Job Depth, and Leader Span of Control measures have been validated in an earlier study by Wigdor.¹³⁰

The satisfaction measures employed as dependent variables in this study examine employee satisfaction with role expectations regarding (a) intrinsic qualities of the work itself; (b) autonomy; (c) job security; (d) pleasantness of the work situation; and (e) extrinsic satisfaction, containing elements of advancement, pay, and prestige.¹³¹ The scales employed as dependent variables were as follows:

Extrinsic Satisfaction

My chances for a promotion to the next higher level

The pay I receive for my work

My chances of going as high as I would like to here

The appreciation shown for my work

The existence of reward based on accomplishment

Pay here compared to most places

Company recognition for a job well done

Fairness of compensation

My chances for advancing at a reasonable rate

The knowledge that my work is acceptable

The prestige of my position inside the Company (the regard received from others in the company).

The awareness that others have of my performance when I perform well

Intrinsic Satisfaction

The challenge that my job provides for me

The feeling of being able to use one's own unique capabilities, realizing one's potentialities

The feeling that my job is an important one

The feeling of self-esteem in my position

The feeling of worthwhile accomplishment of work

The feeling of self-fulfillment from work

The degree to which my work is interesting

Enjoyment of the work I am doing here

Job Security

The feeling of security in my position

Chances of keeping this job as long as I want it

Autonomy

The opportunity to plan ahead and carry out the plan

The opportunity for independent thought

The opportunity to decide on appropriate courses of action

The freedom to express independent opinions about my work

Pleasantness

The opportunity to develop friendships in the company

My feeling that the company is a good place to work

The pleasure of interacting with fellow employees

The dignity with which I am treated

The opportunity to discuss personal problems with fellow employees

The satisfaction scales used as dependent variables have not been "validated" in the way that most of the independent measures have. In fact, it has recently been noted that the many different operational definitions of job satisfaction used by researchers "do not yield empirically comparable measures of satisfaction."¹³² The method used in this study, however, has been found to be as reliable as the available alternatives, and is best suited to the data yielded in this research. The method of response was to provide respondents with a choice of one ("very little" of the characteristic is now connected with my job) to seven ("a great deal" is now connected with my job) for each of the items.¹³³

Hypotheses

The hypotheses outlined below assume that the relationships between the independent variables described previously and the dependent satisfaction variables are significantly moderated by the respondent's perceived ability and willingness to leave his employing organization. This assumption is consistent with work cited earlier which found that "the relationship between respondent satisfaction and the following independent variables was found to increase monotonically with increases in cosmopolitanism: leader consideration, initiating structure, (leader

upward) influence, (leader) technical competence, superior's span of control . . . job scope . . ."134

It is interesting to note that later work which sought to replicate these findings was unable to do so; however, the later study was of hourly-workers in a manufacturing plant, located in a rural environment.¹³⁵ Since the sample in this research more closely resembles the managerial, quasi-professional, clerical and technical group of the earlier study, it is reasonable to hypothesize that the relationships reported in that study can be replicated. The specific hypotheses to be tested in this study therefore are that there will be increasingly strong relationships between the following independent and dependent variables as the respondents' Ability-Willingness scores increase:

1. Job Depth and five measures of satisfaction (satisfaction with Security, Autonomy, and Pleasantness; Extrinsic Satisfaction, and Intrinsic Satisfaction).
2. Job Scope and the five measures of satisfaction
3. Leader Consideration and the five measures of satisfaction
4. Leader Initiating Structure and the five measures of satisfaction
5. Leader Upward Influence and the five measures of satisfaction
6. Leader Span of Control and the five measures of satisfaction
7. Leader Technical Competence and the five measures of satisfaction.

Methodology

A continuing problem for researchers investigating the moderating effects of organizational independence, or "cosmopolitanism," upon relationships between leader behavior measures and satisfaction variables is that the leader behavior measures are themselves highly interdepen-

dent. When predictor variables are not independent of each other the use of multiple significance of difference tests is extremely limited. In the research described here the independent variables were not independent of each other, and in fact correlation coefficients of the following magnitude were computed:

Job Depth and Consideration	.25
Job Depth and Upward Influence	.27
Consideration and Initiating Structure	.60
Consideration and Upward Influence	.61
Consideration and Technical Competence	.31
Initiating Structure and Upward Influence	.64
Initiating Structure and Technical Competence	.29
Upward Influence and Technical Competence	.38

It was consequently decided to employ regression analysis, and to utilize a variety of data for the testing of the hypotheses. The five ability-willingness groups (described in Appendix III) were therefore entered into separate runs of BMD02R (a stepwise regression program in the BIOMED series) and then into separate runs of BMD03R (a non-stepwise regression program in the same series). BMD02R was utilized a total of twenty-five times (each run examining the effects of all seven independent variables upon one dependent variable, for one moderating ability-willingness group) and BMD03R was also run twenty-five times.

The following data were considered to be particularly important to the analysis:

1. Order of Entry. From the stepwise regression program output it was possible to determine the order in which each of the independent variables entered the regression equation. The order of entry depends upon which of the variables not yet entered will effect the greatest reduction of the error sum of squares. Equivalently, it is the variable which has the highest partial correlation with the dependent vari-

able, considering those variables which have already been entered. It is also the variable which would have the highest F value if added.

2. Mean Square Residuals. These are a measure of the variability which cannot be explained in terms of the independent variable. Their square root is the standard error of estimate, which determines the width of the confidence interval. They are furnished by BIOMED stepwise regression program BMD02R. By comparing each mean square residual to that which existed before the last independent variable entered the equation, it is possible to tell when additional variables decrease rather than increase precision of estimation of the independent variable. This occurs when the residuals begin to increase.

3. Regression Coefficients. These are provided as outputs to BMD03R non-stepwise regression. When divided by their standard estimates they yield t values whose significance can be ascertained. This coefficient gives the relative change in the dependent variable as one independent variable is omitted, all other independent variables remaining unchanged in the problem.

4. Graphs of Regression Coefficients. The regression coefficients which pertain to one independent variable and one dependent variable can be graphed, so that the moderating effects of each of the five ability-willingness groups can be examined visually. Each graph would contain five points, each point being determined by calculating the mean of ability-willingness scores for all respondents in that ability-willingness group, so that the points are not equidistant.

5. Partial r. This can be calculated by dividing the sum of squares explained by the total of sum of squares explained plus deviation about regression and taking the square root. Information about

both sum of squares explained and deviation about regression is provided by BMD03R. The square of the partial r is the percentage of the previously explained variability that the independent variable explains when it enters the problem.

The order of entry of the independent variables to the regression equations for each ability-willingness group is shown in Table 3. The point at which the mean square residuals begin to increase is also shown in Table 3. Table 4 displays the regression coefficients, and indicates which of these is significant at the .05 or .01 levels. The partial r 's and their significance levels are presented in Table 5.

The Brown-Mood Multi-Sample Median Test was applied to determine whether regression coefficients and partial r 's were similar or not for the different AW groups. Table 6 shows the results of these tests for regression coefficients, and Table 7 gives results for partial r 's. Table 8 shows the results of applying Kendall's Coefficient of Concordance statistic to the order of entry of independent variables into the stepwise regression runs, to determine whether differences for the various ability-willingness (AW) groups were significant. The Kendall Coefficient of Concordance is a measure of similarity of rank orderings of several groups. In this instance, failure to obtain significant coefficients would support the hypothesis that the AW groups differ with respect to order of entry.

Finally, graphs of regression coefficients are shown as Appendix 4.

Findings

In general, it can be said that the ability-willingness measure

served as an important moderator of relationships between the independent and dependent variables. Table 8 shows, for example, that none of the Kendall Coefficients of Concordance W are significant. This means that the different AW groups failed to show significant similarity concerning order of entry of independent variables. As mentioned earlier, order of entry depends upon which of those variables not yet entered will bring about the greatest reduction of the error sum of squares. The insignificant coefficients displayed in Table 8 signify that the independent variables are of different importance for the various AW groups.

Further evidence of the moderating effect of AW is provided by Tables 6 and 7. These tables show results of the Brown-Mood Multi-Sample Median Tests as applied to the regression coefficients and partial r 's, and reveal that in three of seven cases involving regression coefficients, and in four of seven cases involving partial r 's, the distribution of these statistics is significantly different for the various AW groups. In fact, Initiating Structure is the only independent variable for which the Brown-Mood test is significant for neither regression coefficient nor partial r .

While the moderating effect of the ability-willingness measure was for the most part significant, the nature of the effect was not as had been hypothesized. It had been predicted that relationships between independent and dependent variables would increase systematically with increases in AW. However, it can be seen from Table 4 that the regression coefficients failed to increase systematically with increases in AW, and in fact failed to form any identifiable pattern whatsoever. Partial r 's, shown in Table 5, evidenced a more

consistent pattern of relationships, although these too did not form the hypothesized pattern. Particularly with respect to the following independent variables: Job Scope, Job Depth, and Leader Consideration; and to the dependent variables Extrinsic Satisfaction, Intrinsic Satisfaction, and Satisfaction with Autonomy, the consistent pattern found was one of curvilinearity, rising from AW1 (lowest independence) to AW2, to AW3 (the highest point), and then falling back almost but not quite to the level of AW1. This curvilinear pattern is described in more detail below:

Job Depth and all Satisfaction Measures. All partial r 's for AW2 exceed those for AW1, those of AW3 exceed AW2's, AW4's are less than AW3's but higher than AW5's, and all partial r 's for AW1 (lowest independence) are within .11 of those of AW5 (highest independence). Twelve of fifteen partial correlations of those intermediate in AW (that is, AW groups 2, 3, and 4) are significant at .05 or better, while none of those in the extreme groups AW1 and AW5 are significant. Furthermore, for all criteria except Extrinsic Satisfaction, Job Depth was seen to enter late into the AW1 and AW5 regression equations (see Table 3), causing mean square residuals to increase. This is further evidence of the relative unimportance of the variable Job Depth for predictive purposes in the extreme AW groups, as compared to the intermediate groups AW2, 3, and 4. In general, then, the partial r 's of groups AW1 and AW5 are alike, and are different from those of the intermediate groups.

Job Scope and all Satisfaction Measures Except Security. AW2 partial r 's exceed those for AW1, and AW3's are again largest, all four AW3 partials being significant at the .01 level. Partial r 's for all

AW4 and AW5 dependent variables except Security are lower than those for AW3.

Consideration and all Satisfaction Measures. As was true for both Job Depth and Job Scope, partial r's formed an essentially curvilinear pattern. That is, coefficients for AW2 exceed those for AW1 (except for Security), those for AW3 exceed AW2's (except for Pleasantness), all AW3's are highest (except for Pleasantness), and all AW4 partial r's are greater than those of AW5. Furthermore, eleven of the fifteen partial r's for AW groups 2, 3, and 4 are significant, compared to only one of ten for the extreme groups AW1 and AW5. It is therefore once more evident that groups of those highest and lowest in AW are surprisingly similar (and in fact their partial r's are always within .19), and are unlike those groups intermediate in AW.

As was true for both Job Depth and Job Scope, the Brown-Mood Multi-Sample Median Test for partial r's of Consideration-satisfaction relationships was significant (see Table 7), indicating that predictor-criteria relationships were significantly different for groups with different AW scores (although not in the way that had been hypothesized).

Upward Influence and Satisfaction Measures. While the curvilinear pattern was clearcut only for those partial r's involving the satisfaction criteria Intrinsic and Autonomy, correlations relating to Leader Upward Influence provide further evidence of the similarity of the two groups whose AW scores are least alike. Partial r's of AW1 and AW5 are always within .17 of one another, and all ten of the AW1 and AW5 partial r's are negative, while eight of fifteen

for the intermediate groups are positive.

Leader Technical Competence and Satisfaction. Nine of ten Technical-Competence-satisfaction relationships for the extreme groups AW1 and AW5 are positive, while eight of fifteen for the intermediate groups are negative.

Brown-Mood Tests for both regression coefficients and partial r's are significant at the .05 level, and it is readily apparent that the ability-willingness measure strongly moderates predictor-criteria relationships. For those lowest in independence (AW1), four of five partial r's are significant at the .05 level or better. By contrast, only two of twenty partial r's for the other four AW groups are significant.

Viewed from the standpoint of the dependent variables, the following evidence for the dominant pattern of curvilinearity can be taken from Table 5.

Extrinsic Satisfaction and Four Predictors. Similar patterns of partial r's were formed between Extrinsic Satisfaction and the following independent variables: Depth, Scope, Consideration, and Initiating Structure. In all cases partial r's for AW2 exceed AW1's, those for AW3 exceed AW2's, and all of AW4's were greater than AW1's, but (except for Depth) were less than AW3's. Partial r's for AW5 were always less than AW3's, but (except for Consideration) were greater than AW1's. The pattern formed for each of these independent variables, then, is a curve which is lowest for AW1, rises to AW2 and again to AW3, and then falls back almost by not quite to the level of AW1.

Evidence of this trend is supported by taking note of those partial r's (shown in Table 5) which are significant (one for AW1, then two, four, three, and one).

Intrinsic Satisfaction and Satisfaction with Autonomy, and Four Predictors. For the independent variables Depth, Scope, Consideration and Upward Influence, partial r 's with Intrinsic Satisfaction and with Satisfaction with Autonomy formed patterns very similar to that described above for Extrinsic Satisfaction. This once again shows that the partial r 's for the extremely different groups AW1 and AW5 are much more alike than had been expected.

Conclusions

AW does seem to be of importance as a moderator, but its effect is certainly more complex than had been predicted. None of the relationships systematically increase as AW scores rise. The consistent pattern which exists is rather one of curvilinearity, with AW1 serving as the lowest point and AW3 as the highest. This pattern was noticeable for relationships between the independent variables Job Depth, Job Scope, and Leader Consideration, and the dependent variable satisfaction measures Extrinsic, Intrinsic, and Autonomy. The same pattern was also evident, though less pronounced, for relationships between the independent variables Initiating Structure and Leader Upward Influence and the same dependent variables.

Again, it must be emphasized that such a pattern was not predicted, and there is scant theoretical support in the literature for the position that respondents who are either very high or very low in organizational independence will produce similar data. It seems most likely that different factors are responsible for the correlations in AW group 5, as compared to AW1. For example, the fact that the AW5 group generated the fewest significant correlations altogether between independent

variables and dependent satisfaction measures (only four) may perhaps be due to the fact that individuals who see themselves as very "organizationally independent," in terms of reporting high ability and willingness to leave their employing organization, may be largely nonresponsive to any independent variables which emanate from the organization. It may well be that the important determinants of satisfaction for the true Cosmopolitan stem from happenings in their technical specialty or in their professional associations. While to some extent they may be able to obtain satisfaction from the task itself (two AW5 correlations of ten which involve Depth and Scope were significant, both at the .01 level), it may be far less likely that characteristics of their leader will influence their satisfaction (only two of twenty-five correlations involving the leader behavior variables were significant, neither at the .01 level).

If the logic expounded above about the lack of significant relationships between independent and dependent variables seems plausible, as applied to the (AW5) Cosmopolitan, the same logic should argue strongly for high correlations between independent and dependent variables for the (AW1) Local. However, the data do not support this logic, and in fact not a single partial r is significant between any satisfaction measure and any independent variable except for Leader Technical Competence. (Two regression coefficients, however, are significant, both at the .05 level.) The data are, on the other hand, consistent with those obtained by Kerr, House, and Wigdor, in the replicating study cited earlier. In that study as in this one it was found that "Organizational Dependents" generated relatively low correlations between independent variables and satisfaction. The authors speculated in that study that

such results might be consistent with theories of cognitive dissonance, and the same rationale might be applied here. Specifically, it was postulated that, to the extent that people perceive no real opportunity to change an unpleasant situation, and feel that they are unable to successfully leave that situation (which is most true of the AW1 group), they will tend to alter their felt displeasure toward that situation. It is possible, then, that the Locals in this study actually prevented such independent variables as Consideration, Upward Influence and Job Depth from affecting their satisfaction, preferring to insensitize themselves to such matters and to reduce dissonance by responding (and believing) that they were satisfied even in cases where they perceived their jobs to be lacking in Depth, and their supervisors to be lacking in Consideration.

The preceding paragraphs are obviously conjectural, and seek to explain why the results obtained from this study were different from those expected, and why respondents whose AW scores were very different gave data which were in many cases similar. However, the previous paragraphs cannot explain the unusually strong relationships obtained from the AW1 (Locals) between Leader Technical Competence and all satisfaction measures except for Security. Perceived technical competence of the leader is obviously important to Locals in ways that are not demonstrated by any other AW group. (Although AW3 respondents did generate two significant regression coefficients between Technical Competence and satisfaction, neither was significant at the .01 level, and only one of the two partial r's was significant.) This finding is all the more surprising when we recall that none of the other thirty partial r's were significant for the AW1 group, and when we observe that the

replicating study referred to earlier did not obtain similar data.

The moderating effect of Ability and Willingness to Leave was least important for the predictor Leader Span of Control, and for the criteria Pleasantness and Security. There seems no ready answer for the failure of these variables to be strongly affected by AW. It should be noted, however, that the replicating study by House and Kerr cited earlier also found Span of Control to be least affected by "organizational independence."

Concerning Satisfaction with Security, it is possible that this measure more than any other is unable to be affected very much by leader behavior, no matter how considerate, technically skilled, etc. "Keeping the job as long as the respondent wants it" (one of the scale items) may depend greatly upon overall, profits, plans, and politics. It is possible that Leader Upward Influence may be a stronger moderating variable between predictors and satisfaction with Security than is perceived Ability and Willingness to Leave.

It should also be remembered that the two dependent variables which are least affected by AW are the same two whose reliabilities were earlier reported (Table 2) to be much lower than any of the others, and consequently the lack of moderating effects may signify some difficulty with the measuring instrument used. Satisfaction with Security, comprised of but two items, and with a Kuder-Richardson reliability of only .567, seems particularly suspect in this regard.

In summary, the data from this study appear to substantiate the theoretical point made earlier that Ability and Willingness To Leave the employing organization are important variables which can be operationalized, and which can then provide some fuller understanding of the atti-

tudes and behavior of organizational members. So far as the use of Ability-Willingness as an independent variable is concerned, the data seem to follow the lines expected as a result of previous research. Employing the AW measure as a moderating variable has proven to be more difficult, and the data obtained by using AW in this way have shown far greater complexity, and far less consistency, than had been hoped for. Nevertheless, respondents with different AW scores have shown themselves to be different in their response to questions about satisfaction as well, and consequently it is fair to say that the Ability-Willingness measure, although doubtless in need of refinement, can be of use to future researchers both as an independent and a moderating variable. As more becomes known about the underlying factors which collectively cause respondent perceptions about ability and willingness to leave, it may someday be possible to employ AW as a dependent variable as well.

IX: LIMITATIONS OF THE STUDY, SUGGESTIONS FOR FUTURE RESEARCH IN THE AREA, AND GENERAL CONCLUSIONS

There are a number of pertinent questions which cannot be answered by this research. There are also a few limitations of the present study which could be eliminated by refining the methodology that was employed. This chapter will discuss these limitations and suggested refinements, and will also summarize what the author believes to be the major contributions of the study to the research literature.

The Sample

When testing hypotheses relating to Cosmopolitans and Locals, or professionalism, or organizational independence, researchers have often turned to samples of industrial scientists and engineers to provide information. Considerable discussion has emerged in the literature concerning the necessity of examining samples made up exclusively of scientists or solely of engineers, as opposed to soliciting responses from industrial work groups comprising employees of each job type. Badawy has summarized the relevant research through 1969:

Most of the research on scientific and engineering personnel in industrial research and development (R&D) laboratories tends to lump both groups into a single category or 'professionals,' assuming that they exhibit essentially the same behavioral characteristics in terms of their work goals, needs, values, and job attitudes. Although there is no specific answer to the question of whether industrial scientists are similar to or different from engineers in literature, the major thread common among these studies is that both groups constitute one group of 'professionals' with the same work goals, aspirations, and career problems. Fewer numbers of writers, however, tend to view scientists and engineers as being basically

different.¹³⁶

While Badawy's statement accurately reflects the thinking of most researchers prior to 1970, the emerging consensus in the last two or three years has been that the minority position is correct, that is, that engineers are basically quite different from scientists in their training, commitment, and orientation toward their profession, and that the two work types should be studied separately. In his own research Badawy found that industrial scientists perceived themselves to be significantly different from engineers in terms of needs, job attitudes and work goals.¹³⁷ Goldner and Ritti have also examined this question, and found that

engineers generally enter industry with nonprofessional goals. The goals of recent engineering graduates are oriented toward entrance into positions of power and participation in the affairs of the organization rather than simply the practice of their original specialties. . . . Engineers in our sample displayed few, if any characteristics of professionals. They strongly identify with the organization and its goals.¹³⁸

Shepherd found that engineers not only differed from scientists in his sample concerning goals, but in their reference group orientations as well. He concluded that scientists were "professional" in orientation while engineers tended to be "bureaucratic."¹³⁹ This conclusion is consistent with Ritti's finding that scientists placed considerable importance on opening communication channels to the outside community, while engineers emphasized goals more directly related to the business realm. In fact, based on the three Gouldner dimensions of organizational loyalty, commitment to skills, and reference group orientation, Ritti classified scientists as Cosmopolitans and engineers as Locals.¹⁴⁰

The emerging consensus in favor of treating engineers and scientists as different in cosmopolitan-local orientation has not negated the

arguments against combining them for research purposes. For example, the gauging of amount of professionalism possessed by different occupational groups, and the assigning of Cosmopolitan label to one profession and a Local label to another, is inconsistent with the position taken by Merton that "far from occupation serving to explain the differences between them, it appears that the same occupation has a different role in interpersonal influence according to whether it is pursued by a local or a cosmopolitan."¹⁴¹ Grimes and Berger are also critical of this approach, claiming that the "more useful question is: Do some engineers or scientists exhibit more cosmopolitan characteristics than other engineers or scientists? Not: Do engineers exhibit more local characteristics than scientists?"¹⁴²

These objections notwithstanding, it appears that the studies by Ritti, Perrucci, and others provide adequate evidence that engineers and scientists are sufficiently different in many respects, and that future researchers should not combine samples from the two occupational groups, at least not without examining each job type's data separately first. The research presented in this thesis did not treat respondents in the two occupational groups separately, and it is possible that the data may have been distorted to some extent as a result. Such distortion would be much more severe in a basic research laboratory than in the industrial research and development unit studied, however, because graduate school training is believed to be a major source of these differences in orientation. In the present study only 22% had a Master's degree and only a handful had doctoral training, which is where the primary socialization and formation of professional value systems is believed to occur. Consequently, while it is recommended that future

studies evaluate data from engineer and scientist samples separately, the comparatively low education levels of the scientists studied probably serve to minimize the differences between the two occupational types, preserving the integrity of the data.

The Scales

Considerable care was taken to establish Ability and Willingness To Leave the organization scales which had conceptual meaning, and which captured the essential elements of Cosmopolitan-Local theory. This attempt, however, was only partially successful. It was pointed out earlier the "in so far as [Ability and Willingness To Leave] only indirectly examines commitment to specialized role skills . . . it still cannot be said to constitute a total application of the Gouldner model."¹⁴³ It would be desirable in future research to attempt to include the commitment to skills dimension, to determine whether an instrument enlarged in this way would enable better predictions to be made. Attempts should also be made to increase the reliability of the Ability and Willingness To Leave scales; although the reliabilities reported in this research are probably high enough to permit the scales to be used for most purposes, the inclusion of additional items and the possible deletion of existing items might prove beneficial.

The Method of Categorization

Ability and Willingness To Leave scores were multiplicatively combined in the present research, with the product being utilized as the moderating variable for those results reported in Chapter VIII. Although this method of combination is consistent with the "expectancy times preference" approach taken by Tolman, Vroom, Porter and Lawler,

and although numerous research findings indicate that the force on an individual to engage in a specific behavior is a "nonlinear, monotonically increasing product of expectations and valences,"¹⁴⁴ it would still be desirable to undertake with future research an examination of the multiplicative assumption made in this study. In fact, the author plans to reanalyze the data presented in Chapter VIII, with the aim of ascertaining whether taking the product of Ability and Willingness To Leave is the most useful method of combining the measures.

Additional Areas of Study

There have been a number of important questions raised in this study; some of these have been addressed in the present research, but others can best be answered by employing different measures and methodology than were utilized here. Some of these as yet unanswerable questions include:

1. Is the Cosmopolitan or Local orientation of an individual stable over time, or is it readily changeable by the employing organization? The present study has shown that Cosmopolitan's do expect and prefer different kinds of rewards than Locals; does this mean, however, that by tailoring rewards to the individual the organization can cause the Cosmopolitan to feel a commitment and a loyalty to it, and generally adopt a Local or a Complex orientation? Available data do not enable the question to be answered: Longitudinal studies may ultimately be needed.

2. What are the rewards and organizational practices most highly motivational to the Cosmopolitan-Professional? The present study has indicated the "professional encouragements" mean a great deal more to Cosmopolitans than to Locals. These have been found by the

research described in this study to include opportunities to attend professional meetings, chances to further their professional education, etc. However, we still do not know what other varieties of professional encouragements might be employed, and we do not know anything about the relative strength of each.

3. Data generated by this study have shown that Cosmopolitans are critical of the employing organization in ways that Locals are not. Are such feelings the cause or the result of the respondents' orientation? Does this finding have generalizability to other organizational and leadership practices not investigated here? Perhaps most important, what are the consequences of such feelings? Do they simply create a desire on the part of Cosmopolitans to leave the organization, or might there be effects upon quality of work and anxiousness to improve conditions as well? In other words, do these negative attitudes held by Cosmopolitans have potentially positive as well as negative implications for the organization?

These unanswerable questions notwithstanding, and despite the stated limitations of this research, the present study has helped to clarify some of the important issues in Cosmopolitan-Local theory. Ability and Willingness to Leave the employing organization have been shown to be theoretically relevant to, and constitute a useful reoperation-alization of, Cosmopolitan-Local theory. The two by two design, which permits respondents to be classified as both Cosmopolitan and Local, either one, or neither, has also been shown to be workable. Employees from within the same division of the same organization have been found to differ widely in perceived ability and willingness to find employment elsewhere; at the same time, employees from this R&D division have

been found to have ability-willingness scores which are significantly higher than collective scores from production workers in the same firm.

Employees high in ability and willingness to leave have been found generally to be much less interested in forming social relationships and in joining fraternal kinds of organizations. These employees seem to have lower needs for affiliation, although this was not tested directly by the present study. The high ability and willingness employee is more interested in joining professional and occupational societies, and is more receptive to the idea of the organization as a provider of "professional encouragements." These results indicate that the potential conflict of professional-cosmopolitan versus bureaucracy can probably be prevented or mitigated by the firm's offering of professional-type rewards. While this research studied only such rewards as encouraging employees to attend professional meetings and to further professional training, there are a number of other such encouragements which the organization can provide; these range from upgrading the responsibility and skill levels of tasks performed by professionals, to provision for greater autonomy, to establishing supportive leadership and collegial authority systems. Opportunities for participation and lateral interaction may be increased by the organization, and the evaluation and reward systems revamped so as to appear more legitimate to Cosmopolitans, and more consonant with professional norms and values. Existing research indicates that attempts to offer such "professional encouragements" to all employees in research laboratories are frequently unsuccessful; however, the present study suggests that employees in research labs and R&D divisions who are high in perceived ability and willingness to leave the organization should be particularly interested in such approaches,

while workers lower on these measures might not be motivated by them. Even the "dual hierarchy," which has for the most part failed in those firms which have attempted it,¹⁴⁵ might be useful when applied specifically to organizational Cosmopolitans.

The present research has shown that employees high in perceived ability and willingness to leave are generally more critical of their employing organization, in particular complaining of lack of freedom and of an unfair reward system, one based more on personal contact than on ability. Respondents low in perceived Ability and Willingness To Leave, on the other hand, seem to be more concerned about the lack of controls, that is, the excess of freedom permitted by the organization, particularly concerning the perceived leniency of company regulations. It may well be that Locals (low-ability low-willingness respondents) are more suited to the structured tasks and mechanistic environment which characterize the "bureaucratic" segment of organizations, while Cosmopolitans (high-high respondents) work better at non-programmable tasks in an organic environment.

The present study has also shown that, while such things as "potential not profit," "improve or maintain company status in the eyes of its customers," and "protecting existing markets" are reported by Locals to be important decision criteria, they are much less likely to be so considered by Cosmopolitans. Consistent with the Cosmopolitan's low identification with the firm, these results portray the potential hazards which may befall an organization which employs large numbers of Cosmopolitans, and which cannot manage to alter their orientations so as to include consideration of company welfare.

In summary, Ability and Willingness To Leave the organization have

been shown to be theoretically important and operationally measurable. As has been noted, the methodology employed in this study can certainly be refined and extended; as has also been noted, many of the results obtained by this research have been unexpected, and have disconfirmed some of the stated hypotheses. The moderating effects of these variables have proved to be more complex than was expected, but this does not mean that these effects are unimportant. The data rather suggest that additional testing is needed to provide a fuller understanding of how these variables affect employee attitudes and satisfactions, and what the long-run consequences of these attitudes and satisfactions are for the survival and prosperity of the employing organization.

TABLE 1

MANN-WHITNEY U TEST RESULTS FOR HYPOTHESES
 UTILIZING ABILITY-WILLINGNESS DATA
 AS AN INDEPENDENT VARIABLE

Hypothesis	Low-low Sample Size	High-high Sample Size	Results in Direction Predicted?	Value of U	Value of Z	Level of P
<u>1A</u> : I like to meet and get to know as many people as I can.	37	40	yes	782.0	0.55	0.291
<u>1B</u> : I usually do not care to know a person well unless he is my equal in mentality, learning, and experience.	37	40	yes	809.5	1.22	.111
<u>1C</u> : The number of religious, fraternal, and social groups in which I am active is . . .	37	40	yes	904.0	1.72	.043
<u>1D</u> : The number of professional or occupational groups (excluding those in the company) in which I am active is . . .	37	40	yes	989.0	2.70	.004
<u>2A</u> : Too many people have to be consulted before you can do anything around here.	38	40	yes	912.5	1.57	.058
<u>2B</u> : By and large regulations in the company are too lenient.	38	38	yes	896.5	1.85	.032
<u>2C</u> : There are many divisive cliques and groups in the company.	38	37	no	749.5	0.50	.308

TABLE 1--Continued.

Hypothesis	Low-low Sample Size	High-high Sample Size	Results in Direction Predicted?	Value of U	Value of Z	Level of P
<u>2D</u> : Despite the company's emphasis on equality, social contact among staff members of unequal ranks are not frequent.	38	37	yes	570.0	1.44	0.075
<u>2E</u> : One way to make sure that you have job security here is to be well liked.	38	39	yes	1049.0	3.19	.001
<u>2F</u> : People in this organization do not really trust each other enough.	38	40	yes	1085.0	3.29	.001
<u>2G</u> : It would seem that we need more supervision of employee behavior.	38	39	yes	839.5	1.02	.154
<u>2H</u> : One important way in which people are "kept in line" around here is through gossip.	37	38	yes	819.0	1.27	.102
<u>3A</u> : Achieve Influence Scale	36	39	yes	559.0	1.53	.063
<u>3B</u> : If someone asked you to describe yourself, and you could tell only one thing about yourself, which of the following answers would you be most likely to give?	33	37	yes	858.0	3.52	.0002
<u>3C</u> : Would you prefer advancing 1.						

TABLE 1--Continued.

Hypothesis	Low-low Sample Size	High-high Sample Size	Results in Direction Predicted?	Value of U	Value of Z	Level of P
through promotions in management positions, or 2. through promotions into higher level functional specialization?	38	38	no	627.0	1.18	.119
<u>4A</u> : (Do you favor) company encouragement to attend meetings?	38	40	yes	905.0	1.51	.065
<u>4B</u> : (Do you favor) company encouragement to further professional training by attending special lectures at academic institutions?	37	39	yes	881.0	1.77	.038
<u>5A</u> : Cosmo Decision Factors scale	38	40	yes	860.0	1.00	.159
<u>5B</u> : Local Decision Factors scale	38	40	yes	1025.5	2.67	.004

TABLE 2
 KUDER-RICHARDSON RELIABILITIES FOR SCALES
 EMPLOYED AS INDEPENDENT OR DEPENDENT VARIABLES

Scale Name	No. of Items	Reliability Coefficient*
Job Depth	7	.632
Job Scope	5	.651
Leader Consideration	10	.852
Leader Initiating Structure	10	.849
Leader Upward Influence	7	.887
Extrinsic Satisfaction	12	.937
Intrinsic Satisfaction	8	.938
Satisfaction with Autonomy	4	.821
Satisfaction with Security	2	.567
Satisfaction with Pleasantness	5	.676

*Calculated by employing the Spearman-Brown Prophecy Formula Correction of the Kuder Richardson Formula 20.

TABLE 3
ORDER OF ENTRY BETWEEN PREDICTORS
AND EXTRINSIC SATISFACTION

<u>Variable</u>							
<u>Group</u>	<u>Depth</u>	<u>Scope</u>	<u>Consid- eration</u>	<u>Structure</u>	<u>Upward Influence</u>	<u>Span of Control</u>	<u>Technical Competence</u>
1	5	4	2	6.	3	7	1
2	2	4	1.	7.	6.	3.	5.
3	5.	2	3	6.	7.	4	1
4	1	4	3	6.	5.	2	7.
5	4	7.	2	5.	3.	6.	1

Intrinsic Satisfaction

<u>Variable</u>							
<u>Group</u>	<u>Depth</u>	<u>Scope</u>	<u>Consid- eration</u>	<u>Structure</u>	<u>Upward Influence</u>	<u>Span of Control</u>	<u>Technical Competence</u>
1	6.	3	7.	5	4	2	1
2	2	5.	4	1	6.	3	7.
3	3	2	5	6.	7.	4	1
4	2	3	1	6.	5	4	7.
5	7.	1	5	4	6	2	3

Security

<u>Variable</u>							
<u>Group</u>	<u>Depth</u>	<u>Scope</u>	<u>Consid- eration</u>	<u>Structure</u>	<u>Upward Influence</u>	<u>Span of Control</u>	<u>Technical Competence</u>
1	6.	3	1	7.	2	4.	5.
2	1	5	3	6.	7.	4	2
3	2	3	1	4	5	7.	6.
4	5.	7.	1	4.	3.	6.	2
5	6.	5.	1	7.	2	3.	4.

TABLE 3--Continued

<u>Autonomy</u>							
<u>Variable</u>							
<u>Group</u>	<u>Depth</u>	<u>Scope</u>	<u>Consid- eration</u>	<u>Structure</u>	<u>Upward Influence</u>	<u>Span of Control</u>	<u>Technical Competence</u>
1	3.	2	5.	6.	4.	7.	1
2	3	5.	4	1	7.	2	6.
3	2	4	1	7.	3	5	6
4	1	5.	2	6.	4	3	7.
5	6.	1	2	3	5.	4.	7.
<u>Pleasantness</u>							
<u>Variable</u>							
<u>Group</u>	<u>Depth</u>	<u>Scope</u>	<u>Consid- eration</u>	<u>Structure</u>	<u>Upward Influence</u>	<u>Span of Control</u>	<u>Technical Competence</u>
1	5.	6.	4	7.	3	2	1
2	6.	7.	5.	1	2	3	4.
3	4	1	5.	3	6.	7.	2
4	2	5.	6.	1	7.	4.	3
5	7.	3	2	5.	6.	4	1

. = mean residual increases with addition of variable

TABLE 4

Coefficient from BMD03R and Significant T Values

	<u>AW1</u>	<u>AW2</u>	<u>AW3</u>	<u>AW4</u>	<u>AW5</u>
Depth and Extrinsic	.49	.60	.24	.85*	.31
Intrinsic	.45	.77*	.52	.84	.07
Security	-.16	.93	.65	.11	.04
Autonomy	.48	.67	.84**	.93	.06
Pleasantness	.24	.10	.31	.42	-.00
Scope and Extrinsic	.32	.23	.57*	.24	.06
Intrinsic	.37	.19	.71**	.54	.72
Security	.31	-.39	-.28	.02	.08
Autonomy	.51	.15	.31	.20	.70*
Pleasantness	-.10	-.02	.49	.16	.24
Consideration & Extrinsic	1.25*	.86*	.26	.63	.47
Intrinsic	.03	.30	.36	.52	.47
Security	1.08	.70	1.05**	.70	.50
Autonomy	.55	.39	.54*	.87*	.74*
Pleasantness	.45	.18	.16	.18	.24
Structure and Extrinsic	-.28	-.10	.10	.20	.30
Intrinsic	.68	.44	-.24	.15	-.10
Security	-.10	.42	.51	-.60	-.02
Autonomy	.17	.54	-.06	-.15	-.33
Pleasantness	.01	.37	.36	.71	.21
Upward Influence & Extrinsic	-1.34*	.12	-.03	-.34	-.54
Intrinsic	-.92	.22	.19	.37	-.46
Security	-.58	-.17	-.40	.70	-.42
Autonomy	-.86	.01	.37	-.28	-.22
Pleasantness	-.67	.50	-.13	-.01	-.15
Span of Control & Extrinsic	.02	-.19	-.12	-.27*	-.08
Intrinsic	-.09	-.21	-.14	-.20	-.15
Security	-.10	-.20	-.03	.04	.13
Autonomy	-.02	-.33*	-.14	-.15	-.06
Pleasantness	-.10	-.14	-.01	-.11	.06
Tech. Comp. and Extrinsic	.58**	-.06	.49*	-.04	.22*
Intrinsic	.57*	-.04	.45*	.02	.17
Security	-.06	-.40	-.15	-.22	.08
Autonomy	.53*	.02	.23	-.02	.00
Pleasantness	.33*	-.11	.17	.09	.14

* = .05 level

** = .01 level

TABLE 5
PARTIAL Rs

	<u>AW1</u>	<u>AW2</u>	<u>AW3</u>	<u>AW4</u>	<u>AW5</u>
Depth and Extrinsic	.17	.39*	.41*	.55**	.28
Intrinsic	.06	.45**	.51**	.48**	.15
Security	-.07	.39*	.50**	.18	.00
Autonomy	.16	.36*	.68**	.52**	.20
Pleasantness	.08	.16	.33	.35*	-.00
Scope and Extrinsic	.13	.31	.59**	.19	.25
Intrinsic	.14	.30	.63**	.24	.52**
Security	.16	-.05	-.13	.08	.06
Autonomy	.24	.28	.54**	.11	.52**
Pleasantness	-.22	-.13	.49**	.16	.30
Consideration & Extrinsic	.30	.44**	.49**	.36*	.26
Intrinsic	.14	.36*	.48**	.45**	.13
Security	.33	.18	.55**	.34	.14
Autonomy	.23	.41*	.63**	.37*	.36*
Pleasantness	.13	.30	.29	.48**	.29
Structure and Extrinsic	-.18	-.02	.16	.09	.09
Intrinsic	.24	.33	-.04	.14	-.16
Security	-.13	.07	.21	-.11	-.08
Autonomy	.05	.34	-.18	-.17	-.28
Pleasantness	.01	.33	.24	.41	.10
Upward Influence & Extrinsic	-.26	.00	-.23	-.17	-.09
Intrinsic	-.11	.21	.28	.09	-.08
Security	-.28	-.28	-.20	.19	-.17
Autonomy	-.08	.01	.33	-.11	-.07
Pleasantness	-.18	.16	-.00	-.00	-.05
Span of Control & Extrinsic	.07	-.23	-.17	-.40*	-.07
Intrinsic	-.22	-.27	-.20	-.23	-.16
Security	-.11	-.24	-.04	.07	.15
Autonomy	-.11	-.36	-.26	-.20	-.08
Pleasantness	-.27	-.19	-.01	-.16	.14
Tech. Comp. and Extrinsic	.47**	-.05	.43*	-.09	.37*
Intrinsic	.45*	-.14	.36	.03	.26
Security	-.17	-.31	-.12	-.31	.10
Autonomy	.38*	.06	.24	-.11	.00
Pleasantness	.40*	-.12	.16	.19	.28

* = .05 level

** = .01 level

TABLE 6
BROWN-MOOD MULTI-SAMPLE MEDIAN TEST REGRESSION COEFFICIENTS

		(Low) AW1	AW2	AW3	AW4	(High) AW5	$\chi^2_{c-1} =$
<u>Depth</u>	<u>Above</u>	2	4	3	3	0	6.90
	<u>Below</u>	2	1	2	2	5	
<u>Scope</u>	<u>Above</u>	4	0	4	1	2	9.18
	<u>Below</u>	1	5	1	3	2	
<u>Consider- ation</u>	<u>Above</u>	3	2	2	4	1	3.26
	<u>Below</u>	2	3	3	1	3	
<u>Structure</u>	<u>Above</u>	2	4	2	2	2	2.30
	<u>Below</u>	3	1	3	2	3	
<u>Upward Influence</u>	<u>Above</u>	0	4	4	3	1	12.27*
	<u>Below</u>	5	0	1	2	4	
<u>Span of Control</u>	<u>Above</u>	5	0	2	1	4	12.46*
	<u>Below</u>	0	5	3	3	1	
<u>Technical Competence</u>	<u>Above</u>	4	0	4	1	3	10.92*
	<u>Below</u>	1	5	1	4	1	

*Significant at .05 level.

**Significant at .01 level.

TABLE 7
BROWN-MOOD MULTI-SAMPLE MEDIAN TEST PARTIAL COEFFICIENTS

		(Low) AW1	AW2	AW3	AW4	(High) AW5	$\chi^2_{c-1} =$
<u>Depth</u>	<u>Above</u>	0	4	4	4	0	16.87**
	<u>Below</u>	5	1	0	1	5	
<u>Scope</u>	<u>Above</u>	0	3	4	0	4	11.29*
	<u>Below</u>	4	2	1	4	1	
<u>Consideration</u>	<u>Above</u>	0	2	4	4	0	14.13**
	<u>Below</u>	5	2	1	0	4	
<u>Structure</u>	<u>Above</u>	1	3	3	3	2	3.26
	<u>Below</u>	4	1	2	2	3	
<u>Upward Influence</u>	<u>Above</u>	0	4	3	3	2	5.93
	<u>Below</u>	4	1	2	2	2	
<u>Span of Control</u>	<u>Above</u>	3	1	2	2	4	6.13
	<u>Below</u>	2	4	3	3	0	
<u>Technical Competence</u>	<u>Above</u>	4	0	4	1	3	10.92*
	<u>Below</u>	1	5	1	4	1	

*Significant at .05 level.

**Significant at .01 level.

TABLE 8
KENDALL COEFFICIENT OF CONCORDANCE: W

<u>Satisfaction</u>	<u>W</u>	<u>Level of Significance</u>
Extrinsic	.34	n.s.
Intrinsic	.19	n.s.
Security	.37	n.s.
Autonomy	.20	n.s.
Pleasantness	.19	n.s.

* .39 would be necessary for .05 level of significance
 .49 would be necessary for .01 level of significance

APPENDIX I: QUESTIONNAIRE

BACKGROUND INFORMATION

Differences in background often affect the way people see the work situation and how they feel about it. The following questions are asked so that these differences can be studied. The questions are not asked to identify you; they are, in fact, designed to preserve your anonymity. If you have any question about your anonymity being preserved, please do not fill them out.

CD 1 - Col. 1=B

Col. #2

1. My present age is

- 1 20-24
- 2 25-29
- 3 30-34
- 4 35-39
- 5 40-44
- 6 45-49
- 7 50 or over

2. The highest level of education I have attained is

- 1 less than high school
- 2 high school diploma
- 3 some college, no degree
- 4 bachelor's degree
- 5 master's degree
- 6 doctor's degree
- 7 other (specify below)

3. My major field of study was

- 1 engineering, technical
- 2 physical sciences
- 3 biological sciences
- 4 social sciences, education, liberal arts, or humanities
- 5 business or economics
- 6 mathematics
- 7 other (specify below)

4. I am presently

- 1 married
- 2 single
- 3 widowed, separated, divorced

Col. #6

5. The number of older brothers and sisters I have is

- 1 none (only child)
- 2 none (oldest child)
- 3 one
- 4 two
- 5 three
- 6 four
- 7 five
- 8 more than five

6. The number of younger brothers and sisters I have is

- 1 none
- 2 one
- 3 two
- 4 three
- 5 four
- 6 five
- 7 more than five

7. My position is best described as (check one)

- 1 non-supervisory, technical
- 2 non-supervisory, non-technical
- 3 supervisory, technical
- 4 supervisory, non-technical

8. If you are now in a supervisory position, do you supervise (excluding secretarial)
- 1 ___ technical personnel
 - 2 ___ non-technical personnel
 - 3 ___ both technical and non-technical personnel

9. I work for a supervisor who
- 1 ___ is mainly technically educated and/or trained
 - 2 ___ has education and/or training that is generally non-technical
 - 3 ___ is educated and/or trained technically and non-technically

Col. #11

10. I have been working for my immediate supervisor for
- 1 ___ less than 3 months
 - 2 ___ 3-6 months
 - 3 ___ 7-12 months
 - 4 ___ more than 12 months

11. How many people report directly to your immediate supervisor?
- 1 ___ 1-4
 - 2 ___ 5-7
 - 3 ___ 8-10
 - 4 ___ 11-15
 - 5 ___ more than 15

12. I have been with the company
- 1 ___ less than 1 year
 - 2 ___ 1-2 years
 - 3 ___ 3-5 years
 - 4 ___ 6-9 years
 - 5 ___ 10 years or more

Col. #14

13. During the past seven years, I have worked for (including this company)
- 1 ___ one company
 - 2 ___ two companies
 - 3 ___ three companies
 - 4 ___ four companies
 - 5 ___ five companies or more

14. How many levels of managements are between you and the President?
- 1 ___ none
 - 2 ___ one
 - 3 ___ two
 - 4 ___ three
 - 5 ___ four
 - 6 ___ five
 - 7 ___ six
 - 8 ___ seven

15. If you are not now in a supervisory position, would you like to be in a supervisory position in this company?
- Yes ___ 1 No ___ 2

16. Would you like to be in a supervisory position in another company?
- Yes ___ 1 No ___ 2

17. Would you prefer advancing (check one)
- 1 ___ Through promotions in management positions
 - 2 ___ Through promotions into higher level functional specialization (e. g., production analysis, market Research, financial analysis, personnel)

Col. #19

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18. In which do you see the greatest opportunity for recognition and financial reward?

- 1 Advancement through management positions
 2 Advancement through higher level functional specialization

19. Which of the following circumstances express your attitude about staying with the company? Check as many as are applicable.

- 1 I would not consider leaving under any circumstances
 2 I would leave for promotion and 20% increase in pay
 3 I would leave for same kind of job, 20% increase in pay
 4 I would leave for same kind of job, same pay, more challenge
 5 I would leave for same kind of job, same pay

20. What are your plans to stay with the company?

- 1 I would like to stay all my working life
 2 I would leave only for an exceptional opportunity
 3 I will leave if something better turns up
 4 I expect to leave as soon as possible

21. In the last 2 years (or since you have been with the company, if less than 2 years),

a) How many times have you had a job change that you would consider a promotion?

- 1 None
 2 One
 3 Two
 4 Three or more

b) How many times have you had a job change that you would consider a lateral transfer?

- 1 None
 2 One
 3 Two
 4 Three or more

Col. #24

c) How many times have you had a job change that you would consider a demotion?

- 1 None
 2 One
 3 Two
 4 Three or more

The following questions are asked to get your opinions regarding the general competence of management. Please use the following rating scale in giving your opinion.

Not very competent 1 2 3 4 5 6 7 Extremely competent

For each level of management listed below, you are asked to make three evaluations:

Column (A): Functional Professional Competence: expertness in their particular field, knowledge of the projects and processes for which they are responsible, knowledge and skill in their specialty.

Column (B): Administrative-Managerial Competence: ability to plan, set objectives, schedule, organize, delegate, and control the work he is responsible for.

Column (C): Human Relations Competence: maintaining a cooperative satisfied work group, motivating and assisting subordinates through recognition of good work, coaching and counseling, and consideration of their needs and problems.

Please evaluate the four levels of management listed below. Evaluate each level on the three types of competence in Columns (A), (B), and (C). Enter the rating scale number you select in the appropriate column.

<u>Levels of Management</u>	<u>(A) Functional Professional Competence</u>	<u>(B) Admin. - Managerial Competence</u>	<u>(C) Human Relations Competence</u>
Top corporate management	Col. #25 1 _____	Col. #26 2 _____	Col. #27 3 _____
Top management in my division (R&E, marketing, production, etc.)	Col. #28 4 _____	Col. #29 5 _____	Col. #30 6 _____
Middle management in my division (R&E, finance, marketing, production, etc.)	Col. #31 7 _____	Col. #32 8 _____	Col. #33 9 _____
My immediate supervisor	Col. #34 10 _____	Col. #35 11 _____	Col. #36 12 _____

The following questions are designed to get your evaluations of your immediate subordinates. We are NOT interested in their names. Designate them by assigning them numbers 1, 2, 3, and so on until you have assigned a number to each of your subordinates. Enter these numbers in the left-hand Column (A).

Evaluate your subordinates on a scale from 1 (not very competent) to 7 (extremely competent), as on the previous page. For each subordinate, please make three evaluations.

Column (B): Technical-Professional Competence: expertness in their particular field, knowledge of the projects and processes for which they are responsible, technical skills, etc.

Column (C): Administrative-Managerial Competence: ability to plan, set objectives, schedule, organize, delegate, and control the work he is responsible for.

Column (D): Human Relations Competence: maintaining a cooperative satisfied work group, motivating and assisting subordinates through recognition of good work, coaching and counseling, and consideration of their needs and problems.

Evaluate each subordinate on the three types of competence. Enter the rating scale number you select in the appropriate column. If you feel you cannot rate a subordinate on a particular area of competence, leave the appropriate space blank, but be sure to enter a number for all subordinates in Column (A).

(A) Subordinate Number (1, 2, 3, etc.)	(B) Technical Professional Competence	(C) Administrative Managerial Competence	(D) Human Relations Competence
Col. #37	Col. #38	Col. #39	Col. #39
_____	1 _____	2 _____	3 _____
_____	4 _____	5 _____	6 _____
_____	7 _____	8 _____	9 _____
_____	10 _____	11 _____	12 _____
_____	13 _____	14 _____	15 _____
_____	16 _____	17 _____	18 _____
_____	19 _____	20 _____	21 _____
_____	Col. #58	Col. #59	Col. #60
_____	22 _____	23 _____	24 _____
_____	25 _____	26 _____	27 _____
_____	28 _____	29 _____	30 _____
_____	31 _____	32 _____	33 _____
_____	34 _____	35 _____	36 _____
_____	Col. #73	Col. #74	Col. #75
_____	37 _____	38 _____	39 _____

On the following pages are listed a number of characteristics or qualities associated with your company or your job. The following is an example of how they will appear:

	(A)	(B)
	Is	Should
	<u>Now</u>	<u>Be</u>
1. The feeling of security I have	_____	_____
2. The prestige of my position	_____	_____

For each characteristic you are asked to give two ratings:

Column (A): How much of the characteristic IS NOW connected with your job.

Column (B): How much of the characteristic SHOULD BE connected with your job.

Rating Scale

Use the following rating scale in rating each characteristic. Low numbers indicate a minimum amount (very little) and high numbers indicate a maximum amount (a great deal).

Very									A great
little	1	2	3	4	5	6	7		deal

Simply select a scale number for Column (A) and Column (B) for each characteristic, and enter it into the blank spaces.

CD 2 - Col. 1=B

<u>Characteristic</u>	Col.	<u>Is Now</u>	Col.	<u>Should Be</u>
1. My chances for a promotion to the next higher level	2	_____	3	_____
2. The challenge that my job provides for me	4	_____	5	_____
3. The feeling of being able to use one's own unique capabilities, realizing one's potential	6	_____	7	_____
4. The feeling of security in my position	8	_____	9	_____
5. The pay I receive for my work	10	_____	11	_____
6. The feeling that my job is an important one	12	_____	13	_____
7. My pride in working for the company	14	_____	15	_____
8. My chances of going as high as I would like to here	16	_____	17	_____
9. The feeling of self-esteem in my position	18	_____	19	_____
10. The feeling of worthwhile accomplishment at work	20	_____	21	_____
11. The appreciation shown for my work	22	_____	23	_____
12. The existence of reward based on accomplishment	24	_____	25	_____
13. The opportunity to plan ahead and carry out the plan	26	_____	27	_____
14. Pay here compared to most places	28	_____	29	_____
15. The opportunity to develop friendships in the company	30	_____	31	_____
16. My feeling that the company is a good place to work	32	_____	33	_____
17. The pleasure of interacting with fellow employees	34	_____	35	_____
18. The opportunity for independent thought	36	_____	37	_____
19. Company recognition for a job well done	38	_____	39	_____
20. Company encouragement to attend professional meetings	40	_____	41	_____
21. Chances of keeping this job as long as I want it	42	_____	43	_____
22. The feeling of self-fulfillment from work	44	_____	45	_____
23. Fairness of compensation	46	_____	47	_____
24. My chances for advancing at a reasonable rate	48	_____	49	_____

Characteristic	Col. #	Is Now	Col. #	Should Be
25. The knowledge that my work is acceptable	50	_____	51	_____
26. The prestige of my position inside the company (the regard received from others in the company)	52	_____	53	_____
27. The awareness that others have of my perfor- mance when I perform well	54	_____	55	_____
28. The opportunity to decide on appropriate courses of action	56	_____	57	_____
29. The dignity with which I am treated	58	_____	59	_____
30. The opportunity to discuss personal problems with fellow employees	60	_____	61	_____
31. The degree to which my work is interesting	62	_____	63	_____
32. The freedom to express independent opinions about my work	64	_____	65	_____
33. The opportunity to share professional inter- ests with fellow employees	66	_____	67	_____
34. Company encouragement to further professional training by attending special lectures at academic institutions	68	_____	69	_____
35. The opportunity to learn what Management thinks of my work	70	_____	71	_____
36. Enjoyment of the work I am doing here	72	_____	73	_____
37. The knowledge that my work contributes to sales and profits	74	_____	75	_____

END CARD 2 76 = ID
 77 = ID
 78 = ID
 79 = 0
 80 = 2

The statement listed on the next page will describe some specific characteristics about your particular job. They will appear as follows:

<u>Job Characteristic</u>	<u>(A) How True</u>	<u>(B) Desirability</u>
1. Having enough time to complete my work	_____	_____
2. Knowing what my responsibilities are.	_____	_____

For each Job Characteristic, you are asked to give two ratings; one rating in Column (A) and one in Column (B). Use the following rating scales:

For Column (A): Rate how true the characteristic is of your particular job.

Definitely Not True of my job	1	2	3	4	5	6	7	Extremely True of my job
-------------------------------------	---	---	---	---	---	---	---	--------------------------------

For Column (B): Rate whether the characteristic is desirable or undesirable one for your job.

Extremely Undesirable condition	1	2	3	4	5	6	7	Extremely Desirable condition
---------------------------------------	---	---	---	---	---	---	---	-------------------------------------

Read each characteristic, and select the scale number that best reflects your opinion. Enter the number you select in the appropriate column.

Job Characteristic	(A) How True? Col. #2	(B) Desirability? Col. #3
1. Clear, planned goals and objectives for my job	4 _____	5 _____
2. I have to do things that should be done differently	6 _____	7 _____
3. I know that I have divided my time properly	8 _____	9 _____
4. I receive an assignment without the manpower to complete it	10 _____	11 _____
5. I know what my responsibilities are	12 _____	13 _____
6. I have to buck a rule or policy in order to carry out an assignment	14 _____	15 _____
7. I work with two or more groups who operate quite differently	16 _____	17 _____
8. I know exactly what is expected of me	18 _____	19 _____
9. I receive incompatible requests from two or more people	20 _____	21 _____
10. I feel certain about how much authority I have	22 _____	23 _____
11. I do things that are apt to be accepted by one person and not by others	24 _____	25 _____
12. I receive an assignment without adequate resources and materials to execute it	26 _____	27 _____
13. Explanation is clear of what has to be done	28 _____	29 _____
14. I work on unnecessary things	30 _____	31 _____
15. I don't have much say or influence with my co-workers	32 _____	33 _____
16. I don't have much say or influence with higher management	_____	_____

Many people experience some strain or ill health as a result of working hard at their jobs. The findings of some surveys show that this is an important factor to understand when studying people at work. For this reason, the following questions have been included.

Read each statement and mark those that tend to be TRUE of you with a "T," and those which are definitely not true of you with an "F" for FALSE.

Col. #34

1. I would consider myself in good or excellent health.
2. I would consider myself in fair health.
3. I do not have very good health.
4. I am often bothered by acid indigestion or heartburn.
5. I sometimes feel weak all over.
6. I wake up with stiffness or aching in joints or muscles.
7. I have had trouble getting to sleep or staying asleep.
8. My job tends to directly affect my health.
9. I work under a great deal of tension.
10. I have felt fidgety or nervous as a result of my job.
11. I get irritated or annoyed over the way things are going.
12. If I had a different job, my health would probably improve.
13. I seem to tire quickly.
14. Problems associated with my job have kept me awake at night.
15. I may now have an ulcer but I am not sure of it.
16. I have felt nervous before attending meetings in the company.
17. I often "take my job home with me" in the sense that I think about it when doing other things.
18. I often wonder whether it is all worth it.

1. In your kind of work, if a person tries to change his usual way of doing things, how does it generally turn out?
 1. Usually turns out worse; the tried and true methods work best in my work _____
 2. Usually does not make any difference _____
 3. Usually turns out better; our methods need improvement _____

2. Some people prefer doing a job in pretty much the same way because this way they can count on always doing a good job. Others like to go out of their way in order to think up new ways of doing things. How is it with you on your job?
 1. I always prefer doing things pretty much in the same way _____
 2. I mostly prefer doing things pretty much in the same way _____
 3. I mostly prefer doing things in new and different ways _____
 4. I always prefer doing things in new and different ways _____

3. How often do you try, on your own, a better or faster way of doing something on the job?
 1. Once a week or more often _____
 2. Two or three times a month _____
 3. About once a month _____
 4. Every few months _____
 5. Rarely or never _____

4. How often do you get chances to try out your own ideas on your job, either before or after checking with your supervisor?
 1. Several times a week or more _____
 2. About once a week _____
 3. Several times a month _____
 4. About once a month _____
 5. Less than once a month _____

5. In my kind of job, it is usually better to let your supervisor worry about new or better ways of doing things
 1. Strongly agree _____
 2. Mostly agree _____
 3. Mostly disagree _____
 4. Strongly disagree _____

6. How many times in the past year have you suggested to your supervisor a different or better way of doing something in the job?
 1. Never had occasion to do this during the past year _____
 2. Once or twice _____
 3. About three times _____
 4. About five times _____
 5. Six to ten times _____
 6. More than 10 times had occasion to do this during the past year _____

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Please indicate the degree of approval or disapproval you would most likely receive for the following actions in your company, using the following rating scale:

Strong disapproval 1 2 3 4 5 6 7 Strong approval

	Col. #	
1. Showing imaginative thinking	62	_____
2. Avoiding responsibility	63	_____
3. Coming up with excellent ideas of making improvements or solving problems	64	_____
4. Making a risky decision which turns out to be a wrong decision	65	_____
5. Achieving the goals of your group by taking advantage of others in the Department	66	_____
6. Keeping costs down to the minimum and striving to reduce all expenses	67	_____
7. Encouraging others to come up with new ideas or recommendations for changes	68	_____
8. Failing to follow through on a commitment	69	_____
9. Having an inquisitive mind and constantly questioning the <u>hows</u> and <u>whys</u> of things	70	_____

	Col. #	
1. How applicable is your knowledge and ability on your present job to other firms?	71	<input type="checkbox"/> Not at all <input type="checkbox"/> Slightly <input type="checkbox"/> Somewhat <input type="checkbox"/> Very applicable <input type="checkbox"/> Completely applic.
2. To what extent is your social life connected with your job?	72	<input type="checkbox"/> Very large <input type="checkbox"/> Large <input type="checkbox"/> Somewhat <input type="checkbox"/> Slightly <input type="checkbox"/> Not at all
3. To what extent is it likely that you can leave your present job and obtain an equivalent one elsewhere?	73	<input type="checkbox"/> Not at all <input type="checkbox"/> Slight <input type="checkbox"/> Some <input type="checkbox"/> Likely <input type="checkbox"/> Very likely
4. How useful is the knowledge you obtain on this job to you if you were to seek employment elsewhere?	74	<input type="checkbox"/> Not at all <input type="checkbox"/> Little <input type="checkbox"/> Somewhat <input type="checkbox"/> Quite a bit <input type="checkbox"/> Very useful
5. The number of people in the company I see socially at least once a month is	75	<input type="checkbox"/> 0 - 2 <input type="checkbox"/> 3 - 5 <input type="checkbox"/> 6 - 9 <input type="checkbox"/> 10 - 15 <input type="checkbox"/> More than 15

END CARD 3 Col. #76 = ID
 77 = ID
 78 = ID
 79 = 0
 80 = 3

The following statements describe various characteristics of jobs or organizational conditions that may or may not exist in the company. A knowledge of the accuracy (truth or falseness) of these statements will assist us in determining how conditions of work can be improved.

For each statement you are asked to give two ratings.

For Column (A): Rate how true is the statement NOW:

Definitely												Extremely
NOT TRUE	1	2	3	4	5	6	7					TRUE

For Column (B): Rate the desirability of the condition described:

It would be extremely												It would be extremely
UNDESIRABLE if this												DESIRABLE if the
statement were true	1	2	3	4	5	6	7					statement were true

CD 4 - Col. 1 = B

Characteristic		(A) True- False Rating		(B) Desir- ability Rating
	Col. #		Col. #	
1. Information is available as needed	2	_____	3	_____
2. After a recommendation upward has been made, I might as well as stop worrying about it because it is likely to be a long time before a decision is made on it	4	_____	5	_____
3. If I make one serious mistake my opportunities for future promotion would be seriously jeopardized	6	_____	7	_____
4. Communications are accurate	8	_____	9	_____
5. My duties, authority, and accountability are documented in policies, procedures, or job descriptions	10	_____	11	_____
6. People at my level are "kept in the know" about company activities	12	_____	13	_____
7. Top management is quick to criticize for poor performance and seldom forgets a mistake	14	_____	15	_____

<u>Characteristics</u>	(A) True- False Rating	(B) Desir- ability Rating
	Col. #	Col. #
8. Management "puts off" making important decisions	16 _____	17 _____
9. The organization works to a written law	18 _____	19 _____
10. The channels of communication are well understood	20 _____	21 _____
11. Mistakes are considered as learning experiences and seldom endanger one's long-term career in the company	22 _____	23 _____
12. Those above me would rather sit tight than take a chance on doing something wrong	24 _____	25 _____
13. Performance appraisals are based on written performance standards or criteria	26 _____	27 _____
14. I must get approval for certain decisions which I should be able to make alone	28 _____	29 _____
15. Group rules or guidelines to direct efforts are very clear	30 _____	31 _____
16. Too many people have to be consulted before you can do anything around here	32 _____	33 _____
17. Communications are prompt and timely	34 _____	35 _____
18. Top management does not understand or appreciate the use of quantitative methods for problem solving	36 _____	37 _____
19. Decisions are made with a minimum of delay	38 _____	39 _____
20. Standards of performance and control systems have been established in writing	40 _____	41 _____
21. You do not get much sympathy from higher-ups in this organization if you make a mistake	42 _____	43 _____
22. I should be allowed to make some decisions that are now being made at a higher level	44 _____	45 _____
23. The benefits at this company are good as compared with other companies	46 _____	47 _____

Characteristics	(A) True- False Rating		(B) Desir- ability Rating	
	Col. #		Col. #	
38. Top management expects supervisors to develop the capabilities of their subordinates and they are rewarded for it.	2	_____	3	_____
39. I receive assignments from outside the chain of command	4	_____	5	_____
40. My work group receives a good deal of cooperation from other groups	6	_____	7	_____
41. I have to put in long hours to complete my work	8	_____	9	_____
42. There is some question about who is really running my group	10	_____	11	_____
43. Emphasis is placed on improving performance by coaching and counseling subordinates	12	_____	13	_____
44. Work is completed only to find that it does not fit with the requirements of the overall task and therefore must be redone	14	_____	15	_____
45. There is conflict between objectives that people or groups are expected to accomplish	16	_____	17	_____
46. Managers bypass levels below them in assigning work	18	_____	19	_____
47. There is inconsistency or contradiction among the guidelines and groundrules	20	_____	21	_____
48. Work piles up faster than I can complete it	22	_____	23	_____
49. Someone in addition to my immediate supervisor gives me direct orders	24	_____	25	_____
50. The chain of command is clear to everyone	26	_____	27	_____
51. Interrelated jobs and work activities are set up so that work flows smoothly	28	_____	29	_____
52. Feedback on how things are going is the rule rather than the exception	30	_____	31	_____
53. Checkpoints regarding the progress of work are clear	32	_____	33	_____

Characteristics	(A)	(B)
	True- False Rating	Desir- ability Rating
	Col. #	Col. #
54. My immediate superior is the only person who can require that I revise my priorities	34	35
55. Supervisors are expected to instruct and guide their subordinates	36	37
56. Supervisors are rewarded for helping their subordinates develop their talents and abilities	38	39
57. I receive conflicting orders from different persons	40	41
58. People know when there is a tie-up or a problem	42	43
59. When in trouble, my group gets support and assistance from other groups	44	45
60. My work group responds effectively to changes	46	47
61. Tasks are slowed down because of conflicting orders from above	48	49
62. The chain of command is hardly ever bypassed in assigning tasks	50	51
63. Members of my work group accept changes in directions readily	52	53
64. There is always too much work and too little time or manpower to accomplish it	54	55
65. Assistance is available in keeping things running smoothly	56	57
66. The time is lost in getting a group to work effectively after a change in plans or a project change occurs	58	59
67. Objectives are clearly communicated and understood	60	61
68. People give assignments or directives that conflict with each other	62	63
69. I frequently have too little to do and must go find job assignments	64	65
70. Frequent changes in directions or projects result in confusion and wasted time and effort	66	67

Characteristics	(A)	(B)
	True- False Rating	Desir- ability Rating
	Col. #	Col. #
84. Success is a matter of being at the right place at the right time rather than being a matter of good performance and experience	20 _____	21 _____
85. Work time is lost through poor scheduling and planning	22 _____	23 _____
86. The mission of work groups is clearly defined	24 _____	25 _____
87. I am required to report detailed technical information to my superiors	26 _____	27 _____
88. To succeed it is necessary to "play politics" at this company	28 _____	29 _____
89. I am required to report detailed administrative information to my supervisors	30 _____	31 _____
90. My superiors agree on how the mission of my work group should be interpreted	32 _____	33 _____
91. Jobs are planned before they are started	34 _____	35 _____
92. Important details have not been considered when planning jobs	36 _____	37 _____
93. Management has overlooked competent people when filling positions and has brought in less competent ones from the outside	38 _____	39 _____
94. When jobs are assigned, plans have been made to have all the necessary materials on hand	40 _____	41 _____
95. I have to keep aware of details because superiors expect me to answer detailed questions	42 _____	43 _____
96. There are times when my supervisors expect me to make job progress appear further advanced than it really is	44 _____	45 _____
97. Career success is based primarily on job performance rather than contacts or organizational politics	46 _____	47 _____

Characteristics	(A)	(B)
	True-False Rating	Desirability Rating
	Col. #	Col. #
98. Top management is interested in ideas and suggestions from people at my level in the organization	48	49
99. Promotions are based on ability rather than personality or other factors not related to job performance	50	51
100. Important factors are frequently overlooked when plans are made	52	53
101. Management fills jobs with outsiders when there are competent people at the company for whom these jobs would be a promotion	54	55
102. Management has overlooked competent people when filling positions and has selected less competent ones for promotion	56	57
103. Despite the company's emphasis on equality, social contacts among staff members of different rank are not frequent	58	59
104. Information is dealt with secretively	60	61
105. One way to make sure that you have job security here is to be well liked	62	63
106. The philosophy of our management is that in the long run we get ahead fastest by playing it slow, safe, and sure	64	65
107. If a project (or task) is going badly it would be better to keep it quiet	66	67
108. The best way to make a good impression around here is to steer clear of open arguments and disagreements	68	69
109. People in this organization do not really trust each other enough	70	71
110. I feel free to make recommendations to top management to change existing practices	72	73

<u>Characteristics</u>	<u>(A) True- False Rating</u>	<u>(B) Desir- ability Rating</u>
	Col. #	Col. #
124. In management meetings the goal is to arrive at a decision as smoothly and quickly as possible	26 _____	27 _____
125. If you make a mistake in this organization you will be punished	28 _____	29 _____
126. One important way in which people are "kept in line" around here is through gossip	30 _____	31 _____

Col. #32

- | | |
|---|--|
| 1. To what extent are you able to act independently of your superior in performing your job? | <input type="checkbox"/> Hardly ever |
| | <input type="checkbox"/> Seldom |
| | <input type="checkbox"/> Occasionally |
| | <input type="checkbox"/> Frequently |
| | <input type="checkbox"/> Almost always |
| 2. How much are you required to depend on your superior for the nonfinancial resources (information, supplies, etc.) necessary for the performance of your job? | <input type="checkbox"/> Almost always |
| | <input type="checkbox"/> Very often |
| | <input type="checkbox"/> Quite a bit |
| | <input type="checkbox"/> Some |
| | <input type="checkbox"/> Not at all |
| 3. How much must you rely on directions from others in performing routine tasks? | <input type="checkbox"/> Almost always |
| | <input type="checkbox"/> Very often |
| | <input type="checkbox"/> Quite a bit |
| | <input type="checkbox"/> Some |
| | <input type="checkbox"/> Very little |
| 4. How often are you given assignments requiring you to search for a solution without directions from your superior? | <input type="checkbox"/> Rarely |
| | <input type="checkbox"/> Some |
| | <input type="checkbox"/> Often |
| | <input type="checkbox"/> Very often |
| | <input type="checkbox"/> Almost always |
| 5. How much do your job accomplishments depend upon your ability to gain the cooperation of others? | <input type="checkbox"/> Almost completely |
| | <input type="checkbox"/> Very much |
| | <input type="checkbox"/> Quite a bit |
| | <input type="checkbox"/> Some |
| | <input type="checkbox"/> Very little |
| 6. How often must you rely on directions from others in performing nonroutine tasks? | <input type="checkbox"/> Almost always |
| | <input type="checkbox"/> Very often |
| | <input type="checkbox"/> Often |
| | <input type="checkbox"/> Sometimes |
| | <input type="checkbox"/> Rarely |
| 7. How much does your job satisfaction depend upon your immediate superior? | <input type="checkbox"/> Almost completely |
| | <input type="checkbox"/> Very much |
| | <input type="checkbox"/> Quite a bit |
| | <input type="checkbox"/> Some |
| | <input type="checkbox"/> Very little |

Col. #39

8. How often is it necessary for you to seek instructions from others prior to beginning new assignments?
- _____ Almost always
 _____ Very often
 _____ Often
 _____ Occasionally
 _____ Rarely
9. How much does your ability to get increases in pay depend upon your boss's evaluation of your work?
- _____ Almost completely
 _____ Very much
 _____ Quite a bit
 _____ Some
 _____ Very little
10. To what extent are your chances for promotion determined by your superior's evaluation of your work?
- _____ Very little
 _____ Some
 _____ Quite a bit
 _____ Very much
 _____ Almost completely
11. How much time do you have on your job to perform your regularly assigned functions rather than those specially assigned by your superiors?
- _____ Very little
 _____ Little
 _____ Some
 _____ Quite a bit
 _____ Very much
12. To what extent are you able to schedule and plan your task requirements independently of others in the organization?
- _____ Hardly ever
 _____ Seldom
 _____ Occasionally
 _____ Frequently
 _____ Almost always
13. In your effort to get ahead on your job, to what extent do you act as an innovator?
- _____ Hardly ever
 _____ Seldom
 _____ Occasionally
 _____ Frequently
 _____ Almost always

Col. #45

14. To what extent do the resources (personnel, budget, etc.) you receive depend upon your superiors?
- _____ Very large
 _____ Large
 _____ Some
 _____ Slight
 _____ Almost none

Col. #46

15. What is the average time it takes for you to complete a typical assignment?
- _____ One day or less
 _____ Between 1 and 3 days
 _____ Between 3 days and 1 week
 _____ Between 1 and 2 weeks
 _____ Longer than 2 weeks
16. How often are you required to perform tasks which previously had not been part of your job responsibility?
- _____ Very often
 _____ Often
 _____ Sometimes
 _____ Seldom
 _____ Rarely
17. How often do you see projects through to completion?
- _____ Rarely
 _____ Seldom
 _____ Sometimes
 _____ Often
 _____ Very often
18. To what extent are you able to allocate a portion of your time to tasks related to corporate objectives but not specifically assigned to you?
- _____ Very large
 _____ Large
 _____ Sometimes
 _____ Little
 _____ Almost never
19. How repetitious are your duties?
- _____ Very little
 _____ Some
 _____ Quite a bit
 _____ Very much
 _____ Almost completely
20. How similar are the tasks you perform in a typical work day?
- _____ Almost all the same
 _____ Quite a few the same
 _____ Only a few the same
 _____ Very few the same
 _____ Almost all different

Col. #52

21. To what extent is the major proportion of your tasks repetitive
- _____ Very much
 _____ Quite a bit
 _____ Some
 _____ Little
 _____ Very little

When you evaluate your own ideas, the ones you thought up, how much importance do you usually give the following considerations in deciding whether or not the idea is a good one? (If your job does not usually involve originating ideas, answer the items below in terms of the amount of importance you give them when you evaluate other people's ideas.)

Please indicate the importance or unimportance as follows:

- 5 - Of utmost importance; always considered
- 4 - Usually important, often considered
- 3 - Occasionally important, sometimes considered
- 2 - Rather unimportant, rarely considered
- 1 - Not important at all, never considered

Col. #53

- | | |
|--|-------|
| 1. Interest and approval of colleagues and co-workers | _____ |
| 2. Improve reputation of company in eyes of my profession | _____ |
| 3. Intrinsic interest I have in special technical field | _____ |
| 4. Opportunity to do good work | _____ |
| 5. Theoretical relevance of existing knowledge | _____ |
| 6. Potential net profit | _____ |
| 7. Preferences of my manager or superiors | _____ |
| 8. Enhance my reputation in a special technical field | _____ |
| 9. Challenge presented to me by the idea | _____ |
| 10. Amount of risk involved | _____ |
| 11. Increase my chances for a promotion | _____ |
| 12. New breakthrough in theory, concepts, or methods | _____ |
| 13. Improve or maintain company status in the eyes of its customers | _____ |
| 14. Could write an article on it for a technical or professional journal | _____ |
| 15. Enjoyment I would have in working on the idea | _____ |
| 16. Fits into company product line | _____ |
| 17. Length of time the project will take | _____ |
| 18. Protecting existing markets | _____ |

		Col. #71
19. Originality (is it creative?)		_____
20. Salability to other areas of the company		_____
21. Will help achieve company's goal		_____
		Col. #74
22. Improve image of the division in the company		_____
END CARD 7	76 = ID	79 = 0
	77 = ID	80 = 7
	78 = ID	

LEADER BEHAVIOR DESCRIPTION QUESTIONNAIRE

PURPOSE OF THE QUESTIONNAIRE

On the following page is a list of items that may be used to describe the behavior of your supervisor. Each item describes a specific kind of behavior, but does not ask you to judge whether the behavior is desirable or undesirable. Although some items may appear similar, they express differences that are important in the description of leadership. Each item should be considered as a separate description. This is not a test of ability or consistency in making answers. Its only purpose is to make it possible for you to describe, as accurately as you can, the behavior of your supervisor.

Note: The term, "group," as employed in the following items, refers to a department, division, or other unit of organization that is supervised by the person being described.

The term "members," refers to all the people in the unit of organization that is supervised by the person being described.

Draw a circle around one of the five numbers ((1 2 3 4 5) following each item to show the answer you have selected:

- 1 = Always
 2 = Often
 3 = Occasionally
 4 = Seldom
 5 = Never

CD 8 Col 1 = B

	Col. #	
1. He lets group members know what is expected of them	2	1 2 3 4 5
2. He is friendly and approachable	3	1 2 3 4 5
3. He encourages the use of uniform procedures	4	1 2 3 4 5
4. He does little things to make it pleasant to be a member of the group	5	1 2 3 4 5
5. He tries out his ideas in the group	6	1 2 3 4 5
6. He puts suggestions made by the group into operations	7	1 2 3 4 5
7. He makes his attitudes clear to the group	8	1 2 3 4 5
8. He treats all group members as his equals	9	1 2 3 4 5
9. He decides what shall be done and how it shall be done	10	1 2 3 4 5
10. He gives advance notice of changes	11	1 2 3 4 5
11. He assigns group members to particular tasks	12	1 2 3 4 5
12. He keeps to himself	13	1 2 3 4 5
13. He makes sure that his part in the group is understood by the group members	14	1 2 3 4 5
14. He looks out for the personal welfare of group members	15	1 2 3 4 5
15. He schedules the work to be done	16	1 2 3 4 5
16. He is willing to make changes	17	1 2 3 4 5
17. He maintains definite standards of performance	18	1 2 3 4 5
18. He refuses to explain his actions	19	1 2 3 4 5
19. He asks that group members follow standard rules and regulations	20	1 2 3 4 5
20. He acts without consulting the group	21	1 2 3 4 5

END CARD 8 76 = ID, 77 = ID, 78 = ID, 79 = 0, 80 = 8

ATTITUDE QUESTIONS

Differences in individual personalities and personal values often affect the ways people see the work situation and respond to different management practices. The following questions are asked so that these differences can be studied. By studying how these differences affect individual perceptions we hope to learn how work can be made more satisfying and rewarding.

This last section of the questionnaire will take approximately 15 minutes. If you feel that you would rather not answer the questions please feel free to omit any answers.

Your cooperation in completing this section of the questionnaire will help us contribute to a better understanding of employee satisfaction and adjustment.

Indicate your agreement or disagreement with the following statements:

- 4 - Strongly agree
- 3 - Agree
- 2 - Disagree
- 1 - Strongly disagree

CD 9 Col 1 = B

	Col. #	
1. The major satisfaction in my life comes from my job	62	_____
2. The most important things that happen to me involve my work	63	_____
3. I am really a perfectionist about my work	64	_____
4. I live, eat, and breathe my job	65	_____
5. I am very much involved personally in my work	66	_____
6. Most things in life are more important than work	67	_____
7. I enjoy work as much as play		_____
8. I set difficult goals for myself which I attempt to reach	68	_____

133

Col. #

- | | | |
|--|----|--|
| 1. How important is it for you to feel that you can run your life without depending upon people who are older and more experienced than you? (Check one) | 69 | <input type="checkbox"/> Not at all
<input type="checkbox"/> Slightly
<input type="checkbox"/> Somewhat
<input type="checkbox"/> Very
<input type="checkbox"/> Extremely |
| 2. How often do you find that you can carry out other people's suggestions without changing them any? (Check one) | 70 | <input type="checkbox"/> Rarely
<input type="checkbox"/> Sometimes
<input type="checkbox"/> Often
<input type="checkbox"/> Very often
<input type="checkbox"/> Almost always |
| 3. How much humility do you think you should show to those whom you respect and admire? (Check one) | 71 | <input type="checkbox"/> None
<input type="checkbox"/> A little
<input type="checkbox"/> Some
<input type="checkbox"/> Quite a bit
<input type="checkbox"/> Very much |
| 4. How much do you usually want the person who is in charge of a group you are in to tell you what to do? (Check one) | | <input type="checkbox"/> Not at all
<input type="checkbox"/> A little
<input type="checkbox"/> Some
<input type="checkbox"/> Quite a bit
<input type="checkbox"/> Very much |
| 5. How hard do you find it to disagree with others even in your own thinking? (Check one) | 72 | <input type="checkbox"/> Not at all
<input type="checkbox"/> Slightly
<input type="checkbox"/> Somewhat
<input type="checkbox"/> Quite
<input type="checkbox"/> Very |
| 6. How much do you dislike being told to do something by a superior that is contrary to your own wishes? (Check one) | 73 | <input type="checkbox"/> Not at all
<input type="checkbox"/> A little
<input type="checkbox"/> Some
<input type="checkbox"/> Quite a bit
<input type="checkbox"/> Very much |
| 7. How often do you base your own actions on your own judgments and evaluations? (Check one) | 74 | <input type="checkbox"/> Rarely
<input type="checkbox"/> Sometimes
<input type="checkbox"/> Often
<input type="checkbox"/> Very often
<input type="checkbox"/> Almost always |

END CARD 9

76 = ID

77 = ID

78 = ID

79 = 0

80 = 9

134

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally.

CD 10 Col 1 = B

	Col. #	<u>True</u>	<u>False</u>
Before voting I thoroughly investigate the qualifications of all the candidates	2	_____	_____
I never hesitate to go out of my way to help someone in trouble	3	_____	_____
It is sometimes hard for me to go on with my work if I am not encouraged	4	_____	_____
I have never intensely disliked anyone	5	_____	_____
On occasion I have had doubts about my ability to succeed in life	6	_____	_____
I sometimes feel resentful when I do not get my way	7	_____	_____
I am always careful about my manner of dress	8	_____	_____
My table manners at home are as good as when I eat out in a restaurant	9	_____	_____
If I could get into a movie without paying and be sure I was not seen I would probably do it	10	_____	_____
On a few occasions, I have given up doing something because I thought too little of my ability	11	_____	_____
I like to gossip at times	12	_____	_____
There have been times when I felt like rebelling against people in authority even though I knew they were right	13	_____	_____
No matter who I am talking to, I am always a good listener	14	_____	_____
I can remember "playing sick" to get out of something	15	_____	_____
There have been occasions when I took advantage of someone	16	_____	_____
I am always willing to admit when I make a mistake	17	_____	_____

	Col. #	<u>True</u>	<u>False</u>
I always try to practice what I preach	18	_____	_____
I do not find it particularly difficult to get along with loud mouthed, obnoxious people	19	_____	_____
I sometimes try to get even rather than forgive and forget	20	_____	_____
When I do not know something I do not at all mind admitting it	21	_____	_____
I am always courteous, even to people who are disagreeable	22	_____	_____
At times I have really insisted on having things my own way	23	_____	_____
There have been occasions when I felt like smashing things	24	_____	_____
I would never think of letting someone else be punished for my wrong-doings	25	_____	_____
I never resent being asked to return a favor	26	_____	_____
I have never been irked when people expressed ideas very different from my own	27	_____	_____
I never make a long trip without checking the safety of my car	28	_____	_____
There have been times when I was quite jealous of the good fortune of others	29	_____	_____
I have almost never felt the urge to tell someone off	30	_____	_____
I am sometimes irritated by people who ask favors of me	31	_____	_____
I have never felt that I was punished without cause	32	_____	_____
I sometimes think when people have a misfortune they only got what they deserved	33	_____	_____
I have never deliberately said something to hurt someone's feelings	34	_____	_____

The following questions are not directed toward your work or the things you do at the company, but rather toward life as a whole. In answering these questions, we are interested in what you as a person believe and feel.

Indicate your agreement or disagreement with each statement as follows:

- 5 - Strongly agree
- 4 - Agree
- 3 - I can't make up my mind
- 2 - Disagree
- 1 - Strongly disagree

	Col. #	
1. The job should come first, even if it means sacrificing time from recreation	35	_____
2. Obedience and respect for authority are the most important virtues children should learn	36	_____
3. If people would talk less and work more, everybody would be better off	37	_____
4. Science has its place, but there are important things that can never possibly be understood by the human mind	38	_____
5. Children should be taught that in these days a person does not really know whom he can count on	39	_____
6. Making plans only brings unhappiness because the plans are hard to fulfill	40	_____
7. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down	41	_____
8. What this country needs most, more than laws and political programs, is a few courageous, tireless, devoted leaders in whom the people can put their faith	42	_____
9. The best way to judge a man is by his success in his occupation	43	_____
10. No sane, normal, decent person could ever think of hurting a close friend or relative	44	_____
11. In our modern world knowledge must be practical in order to be meaningful	45	_____

	Col. #	
12. It does not make much difference if the people elect one or another candidate, for nothing will change	46	_____
13. Children should learn that if you do not look out for yourself people will take advantage of you	47	_____
14. There is hardly anything lower than a person who does not feel a great love, gratitude, and respect for his parents	48	_____
15. The most important qualities of a real man are determination and driving ambition	49	_____
16. With things as they are today, an intelligent person ought to think only about the present, without worrying about what is going to happen tomorrow	50	_____
17. When a person has a problem or worry, it is best for him not to think about it, but to keep busy with more cheerful things	51	_____
18. When a man is no longer anxious to do better than well, he is done for	52	_____
19. People can be divided into two distinct classes: the weak and the strong	53	_____
20. Even when teen-agers get married, their main loyalty still belongs to their fathers and mothers	54	_____
21. The most important thing for a parent to do is to help his children get further ahead in the world than he did	55	_____
22. Children should learn that most people can be trusted	56	_____
23. Nothing else which life can offer is a substitute for great achievement	57	_____
24. Only ambition will bring a man's mind into full activity	58	_____
25. When the time comes for a boy to take a job, he should stay near his parents, even if it means giving up a good job	59	_____
26. It is important to know clearly in advance your plans for the future	60	_____

Indicate whether these items are true or false by checking the appropriate box to the right of each question.

	Col. #	<u>True</u>	<u>False</u>
1. I like to meet and get to know as many people as I can	61	_____	_____
2. I would not hesitate to select a work partner who I did not like, if I thought he was the right man for the job	62	_____	_____
3. I have the ability to work well even on jobs which are boring	63	_____	_____
4. I enjoy operating machinery	64	_____	_____
5. I would be very annoyed to find my watch has stopped or does not run properly	65	_____	_____
6. I usually do not care to know a person well unless he is my equal in mentality, learning, and experience		_____	_____
7. In general, I have considerable influence upon other people in the Company	67	_____	_____
8. Even though they are competent, somehow or other one gets very little intellectual stimulation from his colleagues here	68	_____	_____
9. The number of religious, fraternal, and social groups in which I am active is	69	1 _____ None	
		2 _____ One	
		3 _____ Two	
		4 _____ Three	
		5 _____ Four or five	
		6 _____ Six or seven	
		7 _____ Eight - 10	
		8 _____ More than 10	
10. The number of occupational or professional groups (excluding those in the company) in which I am active is	70	1 _____ None	
		2 _____ One	
		3 _____ Two	
		4 _____ Three	
		5 _____ Four or five	
		6 _____ Six or seven	
		7 _____ Eight - 10	
		8 _____ More than 10	

11. How would you feel if you heard (or read about) someone criticizing your Company or Company products, or comparing your Company unfavorably to other companies?

1. It would not really bother me. I do not care much what other people think of the Company. _____

2. It would bother me a bit. _____

3. It would bother me quite a bit; I am anxious to have people think well of the Company _____

12. If someone asked you to describe yourself, and you could tell only one thing about yourself, which of the following answers would you be most likely to give? _____

1. I come from (my home state). _____

2. I work for (this Company). _____

3. I am a (occupation or type of work). _____

4. I am a (my church membership or preference). _____

5. I am a graduate of (my school). _____

END CARD 10

ID 79 = 1 80 = 0

13A. If you are an only child, check here () and skip Part B.

13B. Indicate your relative position among your brothers and sisters, as in the following example:

I have a sister 3 years older than I, and a brother 2 years younger than I. My answer would therefore be:

1. S + 3

2. B - 2

1. _____ 2. _____ 3. _____ 4. _____

5. _____ 6. _____ 7. _____ 8. _____

9. _____ 10. _____ 11. _____ 12. _____

APPENDIX II: CATEGORIZATION OF THE SAMPLE

The initial step in the assignment of respondents to Local, Cosmopolitan, Complex or Indifferent categories was the compilation of a frequency distribution of mean scale scores for both the Ability and the Willingness measures. These frequency distributions are shown in Tables III and IV. The second step was the trichotomization of the data for each scale, which meant that each respondent was assigned a low, medium, or high Ability category, based on his Ability score, and was then assigned a low, medium, or high Willingness category, based solely upon his Willingness score. The method chosen for these assignments was to first divide respondents into three groups of sixty-five or sixty-six persons each, and then to move respondents from the medium to the appropriate extreme group as necessary so that no respondents with the same score would be placed in different groups.

It is interesting to note that the "mean of means" for all respondents' Ability scores is almost identical to the "median of means," and that the same is true regarding the equivalent mean and median statistics for Willingness. Specifically, the numbers are:

Ability "mean of means"	3.13
Ability "median of means"	3.20
Willingness "mean of means"	2.44
Willingness "median of means"	2.40

This similarity of mean and median score data for both the Ability and the Willingness measures is meaningful in that it brings about an interesting situation. An alternate method to the trichotomization into

TABLE 9
 ABILITY TO LEAVE FREQUENCY DISTRIBUTION
 OF MEAN SCALE SCORES

Mean Score	N*
2.0	2
2.2	8
2.4	8
2.6	16
2.75*	3
2.8	27
3.0	26
3.2	26
3.4	32
3.5*	1
3.6	28
3.75*	1
3.8	14
4.0	4
	<u>196</u>

*These mean scores were possible because a decision was made to use data for any respondent who omitted responses for only one of the five Ability items. There were five such respondents.

TABLE 10
WILLINGNESS TO LEAVE FREQUENCY DISTRIBUTION
OF MEAN SCALE SCORES

Mean Score	N=
1.3	1
1.4	2
1.6	2
1.7	7
1.9	14
2.0	15
2.1	18
2.2*	4
2.3	17
2.4	27
2.5*	3
2.6	24
2.7	22
2.9	14
3.0	8
3.1	9
3.2*	2
3.3	3
3.4	3
3.7	1
	<u>196</u>

*These mean scores were possible because a decision was made to use data for any respondent who omitted responses for only one or two of the seven Willingness items. Altogether, eighteen respondents answered only five of six of the seven items.

TABLE 11
ABILITY BY WILLINGNESS

Willingness	Ability			Totals
	Low (=2.8)	Medium (3.0 and 3.2)	High (=3.4)	
Low (=2.3)	31 ¹	19	30 ²	80
Medium (2.4 and 2.5)	11	6	13	30
High (=2.6)	22 ³	27	37 ⁴	86
Totals	64	52	80	196

¹These thirty-one may be classified as Locals.

²These thirty may be classified as Complex.

³These twenty-two may be classified as Indifferent.

⁴These thirty-seven may be classified as Cosmopolitans.

equal thirds with assignment of ties to extreme groups, as was employed in this study, is the establishment of a middle third about the mean as the medium group, with those below the middle third serving as the "low" category, regardless of how many respondents have such a score, and the assignment of all those with scores above the middle third to the "high" category. When this method has been employed in the literature, it has often produced groupings which were substantially different from those which the method chosen for this study produced. However, in cases where the median and mean of means are as closely associated as is currently the case, the methods do not result in very different groupings. In fact, in the present study, categorization of the groups by first choosing the middle third about the mean and then assigning those below and above this middle third to the low and high categories, respectively, would have produced categories which are identical to those resulting from the actual method employed.

The assignment of respondents to low, medium, and high Ability categories and to low, medium, and high Willingness categories resulted in nine possible Ability-Willingness cells, and the number of respondents placed in each cell is stated in Table 5. While those persons who were low in both Ability and Willingness, those high in both, and those high in one and low in the other could be directly labelled as Locals, Cosmopolitans, Complex or Indifferent, the remaining five cells were not so easy to classify. Thus, as can be seen from Table 5, there were seventy-six respondents who were classified as medium in Ability To Leave, Willingness To Leave, or both.

It was considered desirable to be able to fit as many of the seventy-six as possible into one of the four categories. On the other

hand, it was not deemed wise to place respondents into a category containing people whose scores were substantially different. To resolve this dilemma an Intermediate category was established, to serve as a collection point for those whose Ability and Willingness scores were so far toward the center that it would be misleading to classify them as being Local, Cosmopolitan, Complex, or Indifferent. The Intermediate label was clearly the logical one for the medium-Ability medium-Willingness cell, for example, and the six respondents who were in that cell were classified accordingly. This still left seventy people, shown in Table 5 as high-medium, low-medium, medium-high or medium-low, unclassified.

It was decided to employ the Ability-Willingness data in a multiplicative way, as Vroom had recommended for his Expectancy-Preference data, but only for the purpose of assigning these seventy respondents to one of the five categories. To do this, it was first determined that the maximum product (Ability X Willingness) which could be attained by a Local was 6.44¹⁴⁶ while the minimum possible Cosmopolitan product was 8.84. The Ability X Willingness scores of the seventy respondents were then calculated. Those whose products were higher than the minimum Cosmopolitan product, or whose products were lower than the maximum Local product, were assigned to the most appropriate extreme group. Those whose products fell between 6.44 and 8.84, on the other hand, joined the medium-medium respondents in the Intermediate group. The assignment of the seventy respondents was accordingly made as follows:

To the Cosmopolitan Category	3
To the Local Category	7
To the Complex Category	10
To the Indifferent Category	7
To the Intermediate Category	43

This resulted in a final frequency distribution within the five categories as shown below:

Cosmopolitans	N=40	(37 high-Ability high-Willingness, 3 medium-Ability high-Willingness)
Locals	N=38	(31 low-Ability low-Willingness, 5 low-Ability medium-Willingness, 2 medium-Ability low-Willingness)
Complex	N=40	
Indifferent	N=29	
Intermediate	N=49	

APPENDIX III: RECATEGORIZATION OF THE SAMPLE

While the separation of the respondents into categories of Cosmopolitan, Local, Complex, Indifferent, and Intermediate enables tests to be made of hypotheses suggested by Merton, Gouldner, and other developers of Cosmo-Local theory, there seemed to be less justification for combining groups in this way for testing the utility of Ability and Willingness To Leave the Employing Organization as a moderating variable. For one thing, there was far less research evidence upon which hypotheses using the measure as a moderator could be based. Also, it was desirable to include all R&D subjects' data in these tests, rather than excluding some responses as had been done earlier. For these reasons the data were grouped, based upon the product of the ability and the willingness scores.

It has been noted earlier in this paper that Ability To Leave may be considered to reflect the respondent's expectancy that an attempt to leave would be successful, while Willingness To Leave is analogous to a statement of the individual's preference for leaving. While the theoretical validity of assuming a multiplicative relationship between these two measures can and should be questioned, the fact remains that the Expectancy-Preference theories of Tolman, Lewin, Edwards, Seigel, Vroom, Porter and Lawler, and Atkinson all depend upon such a multiplicative combination. Since it seems beyond the scope of this paper to test the implicit assumptions underlying all the major theories, the recategorization of subjects was based upon taking the product of each

respondent's Ability and Willingness To Leave scores, and forming five groups based upon that product. Ideally, the five groups would have had equal numbers of subjects; however, it was necessary to insure that no subjects with identical scores be placed in different groups. The actual number of respondents in the five groups, therefore, was as follows:

Ability-Willingness group 1 (lowest ability and willingness)	=37
Ability-Willingness group 2	=38
Ability-Willingness group 3	=38
Ability-Willingness group 4	=40
Ability-Willingness group 5(highest ability and willingness)	=43

**APPENDIX 4: GRAPHS SHOWING PATTERNS OF REGRESSION
COEFFICIENTS FOR INDEPENDENT AND
DEPENDENT VARIABLES**

Regression
Coefficient

0.8
0.6
0.4
0.2
0.0
-0.2
-0.4
-0.6
-0.8

Intrinsic
Autonomy
Pleasantness
Security
Extrinsic

AW Group

5.0
AW1

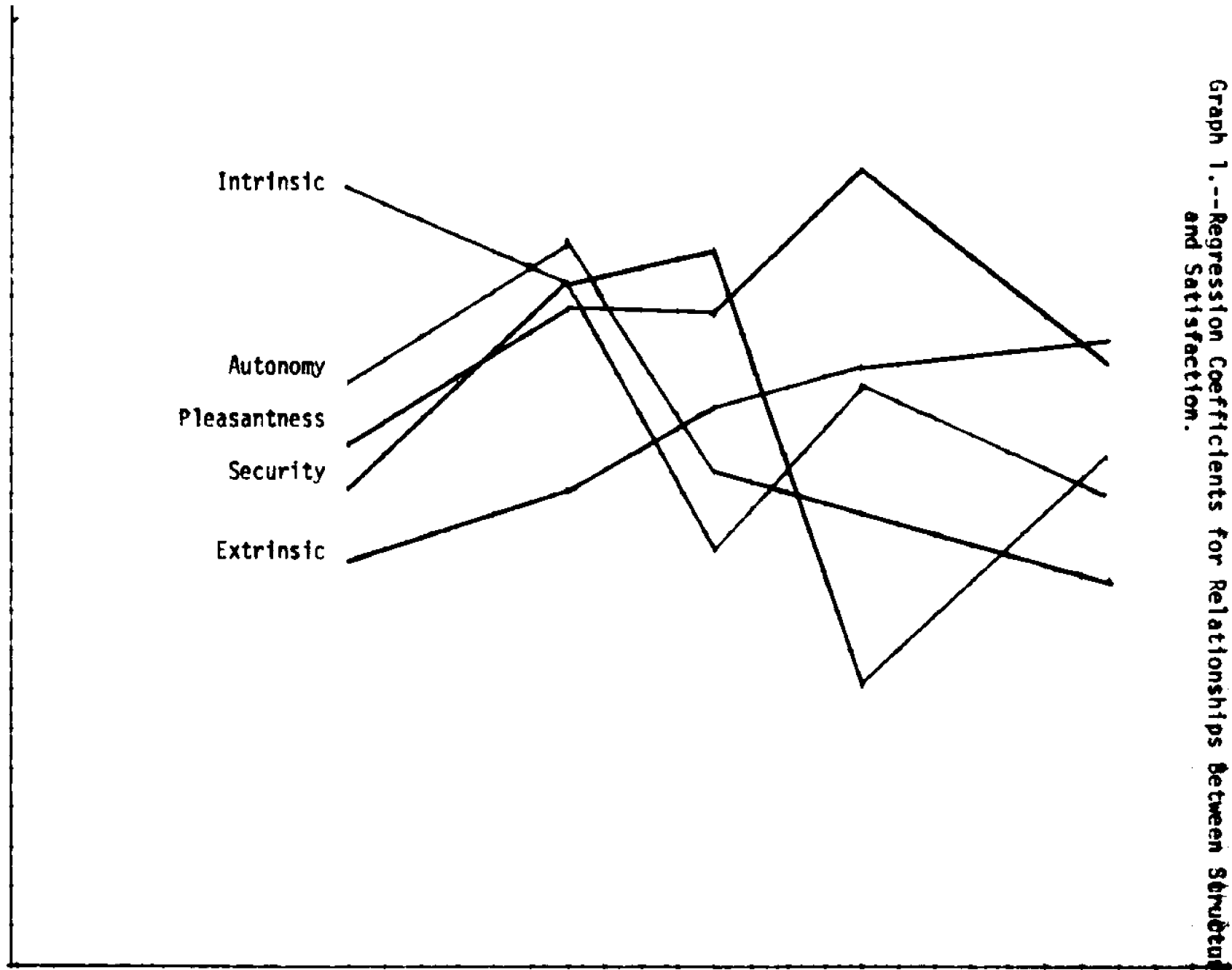
6.5
AW2

7.5
AW3

8.5
AW4

10.2
AW5

Graph 1.--Regression Coefficients for Relationships between Struents and Satisfaction.



Regression
Coefficient

0.8

.7

.6

.5

.4

.3

.2

.1

0.0

-.1

-.2

-.3

Autonomy

Intrinsic
Extrinsic
Security

Pleasantness

AW Group

5.0
AW1

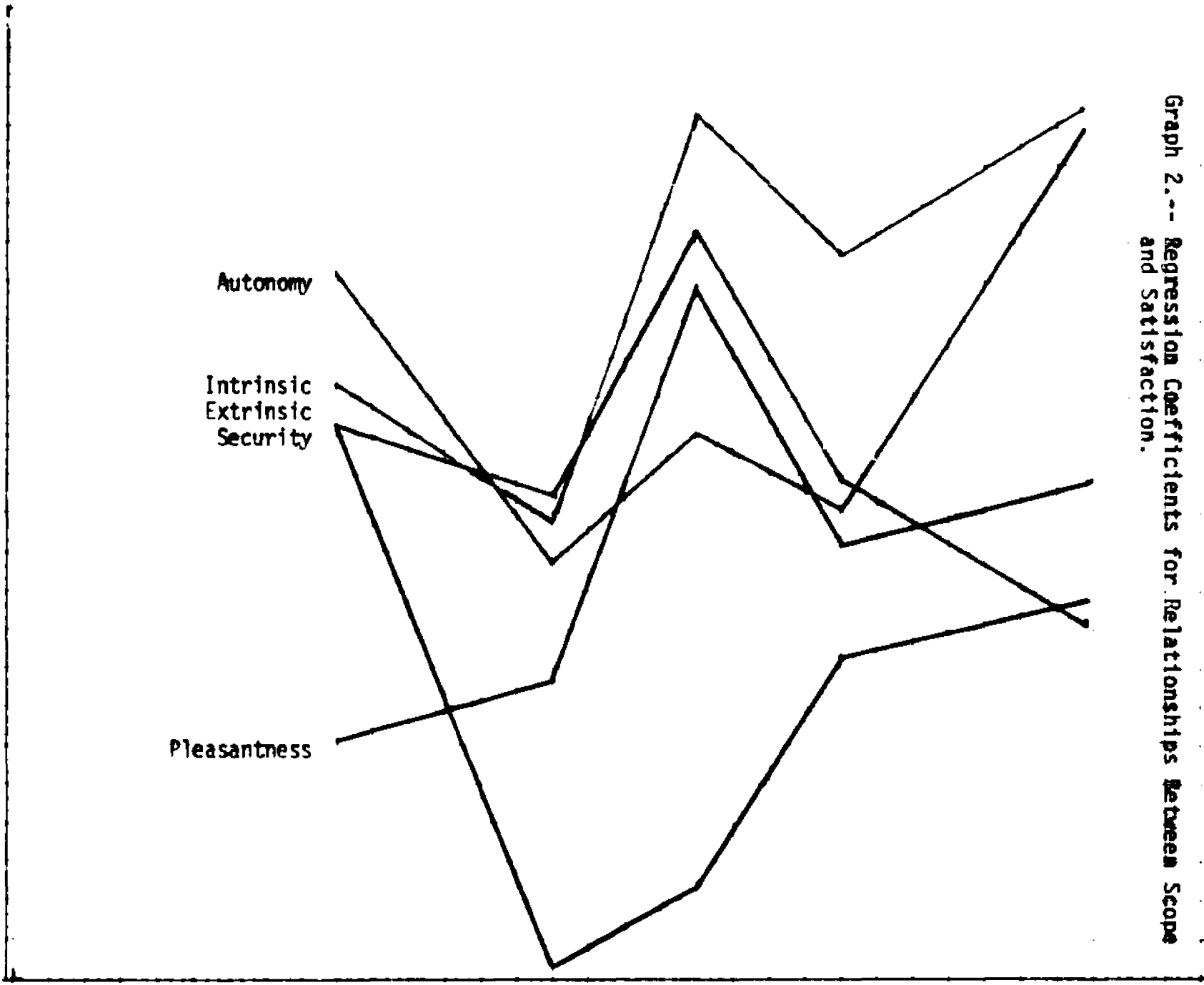
6.5
AW2

7.5
AW3

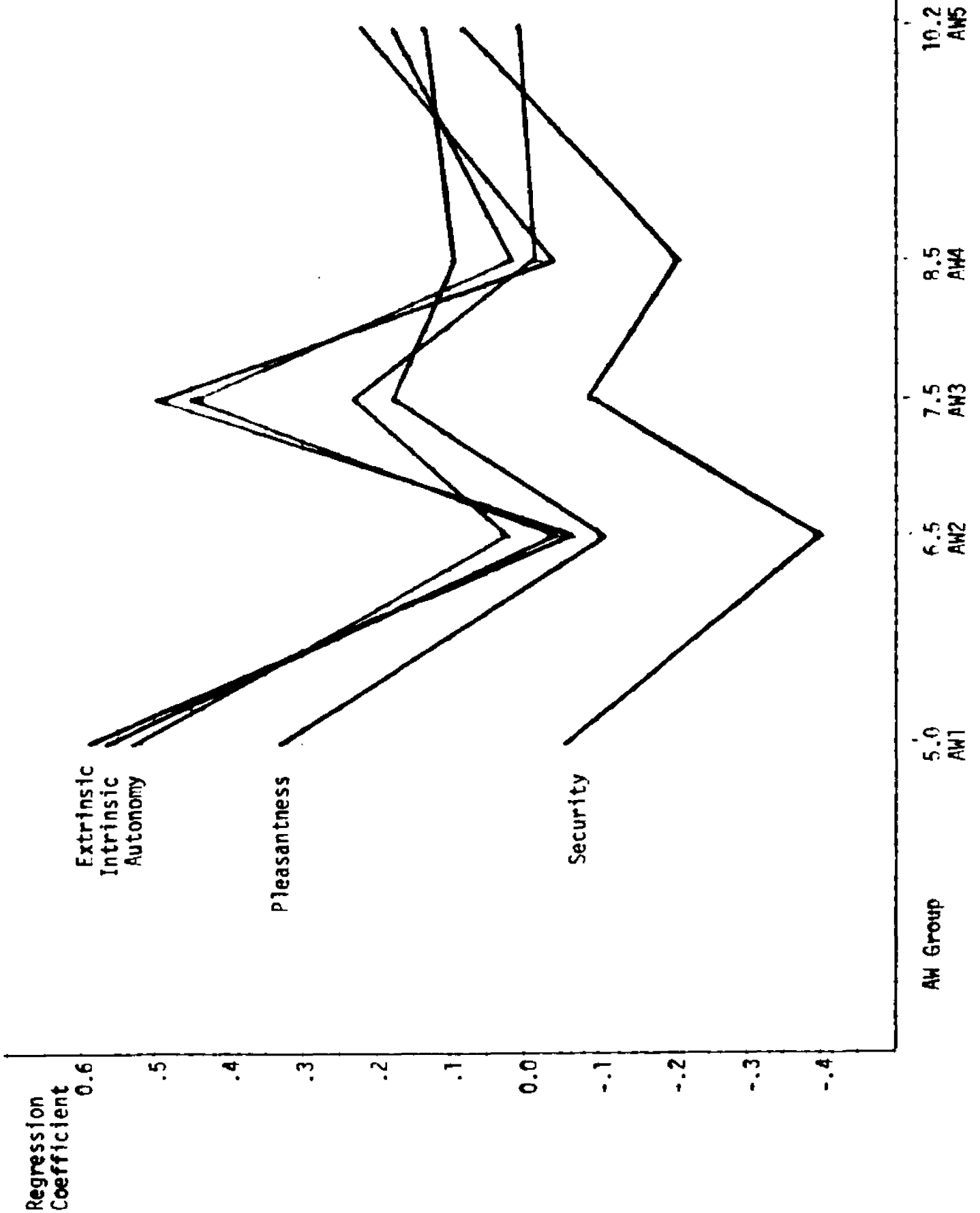
8.5
AW4

10.2
AW5

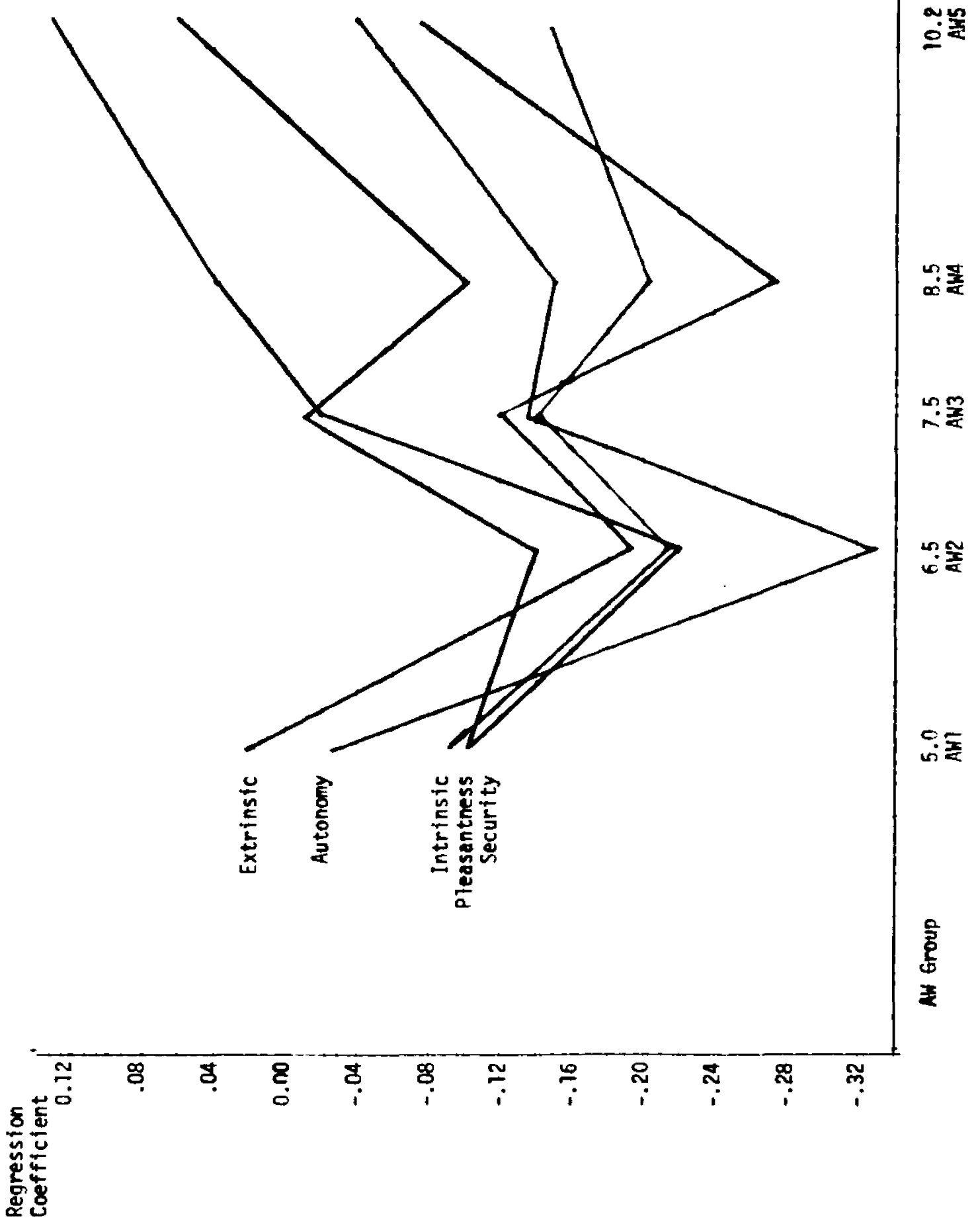
Graph 2.-- Regression Coefficients for Relationships Between Scope and Satisfaction.



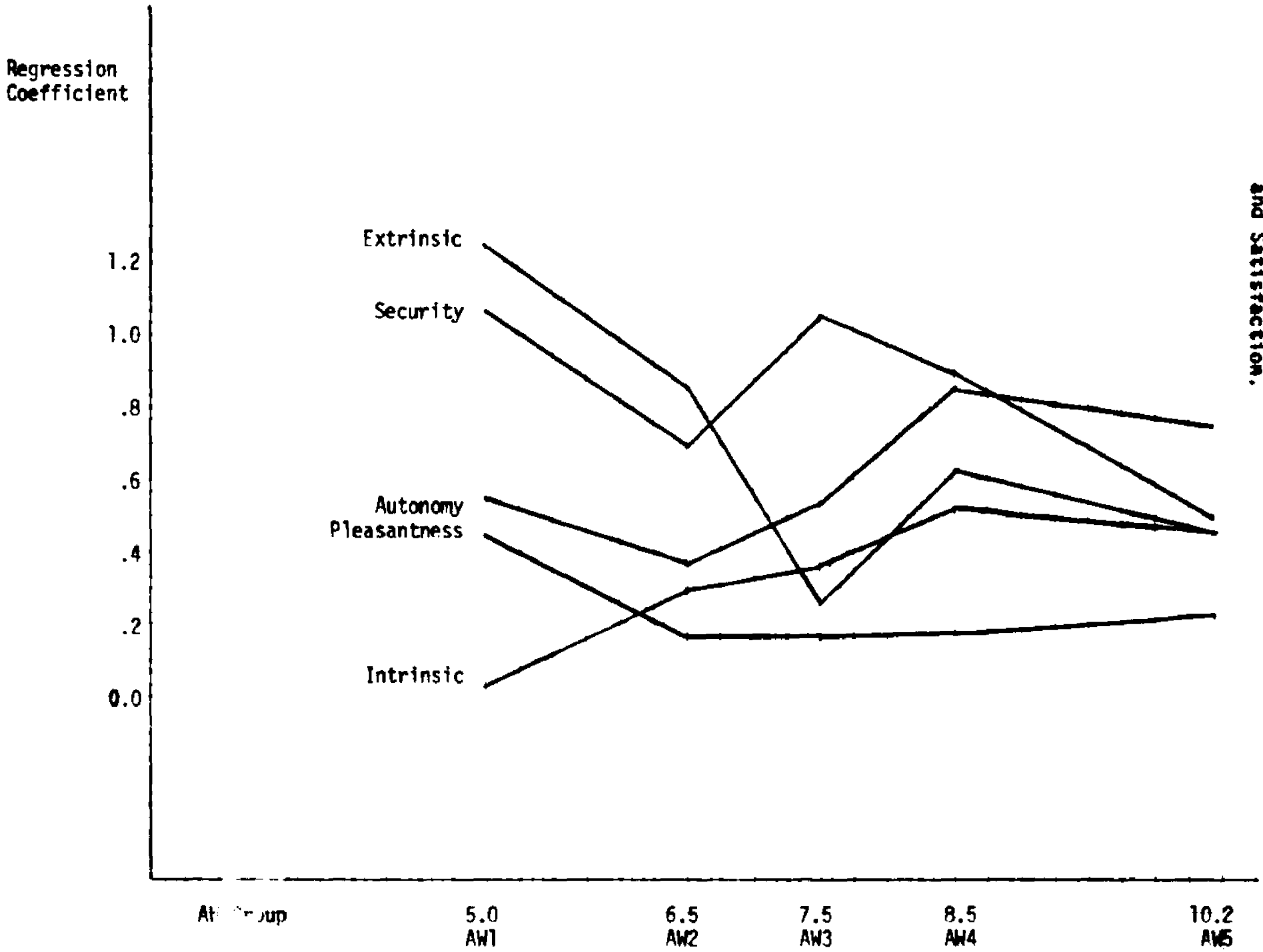
Graph 3.-- Regression Coefficients for Relationships Between Technical Competence and Satisfaction.



Graph 4.--Regression Coefficients for Relationships Between Span of Control and Satisfaction.



Graph 5.--Regression Coefficients for Relationships Between Consideration and Satisfaction.



Regression Coefficient

AW Group

5.0
AW1

6.5
AW2

7.5
AW3

8.5
AW4

10.2
AW5

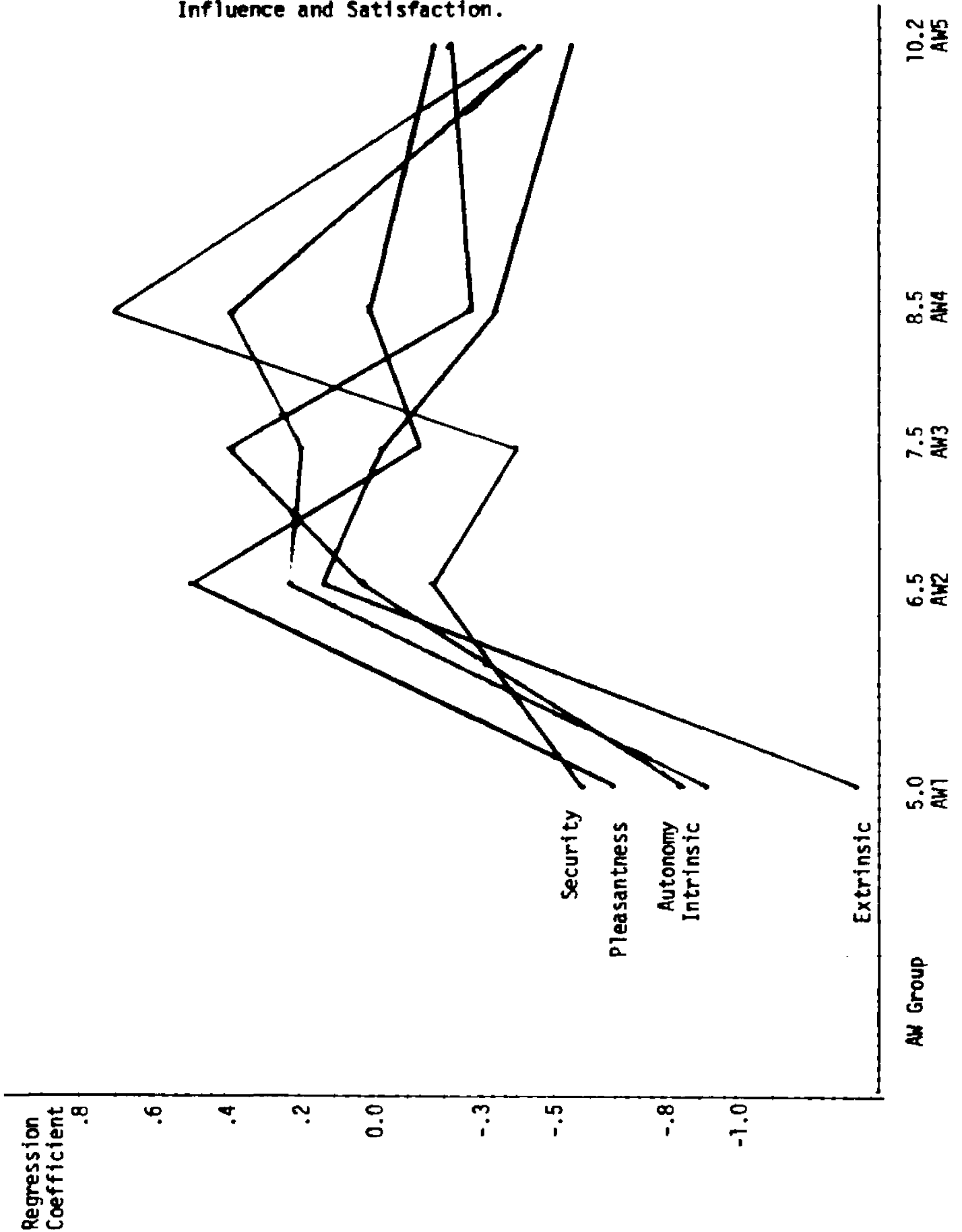
Extrinsic

Security

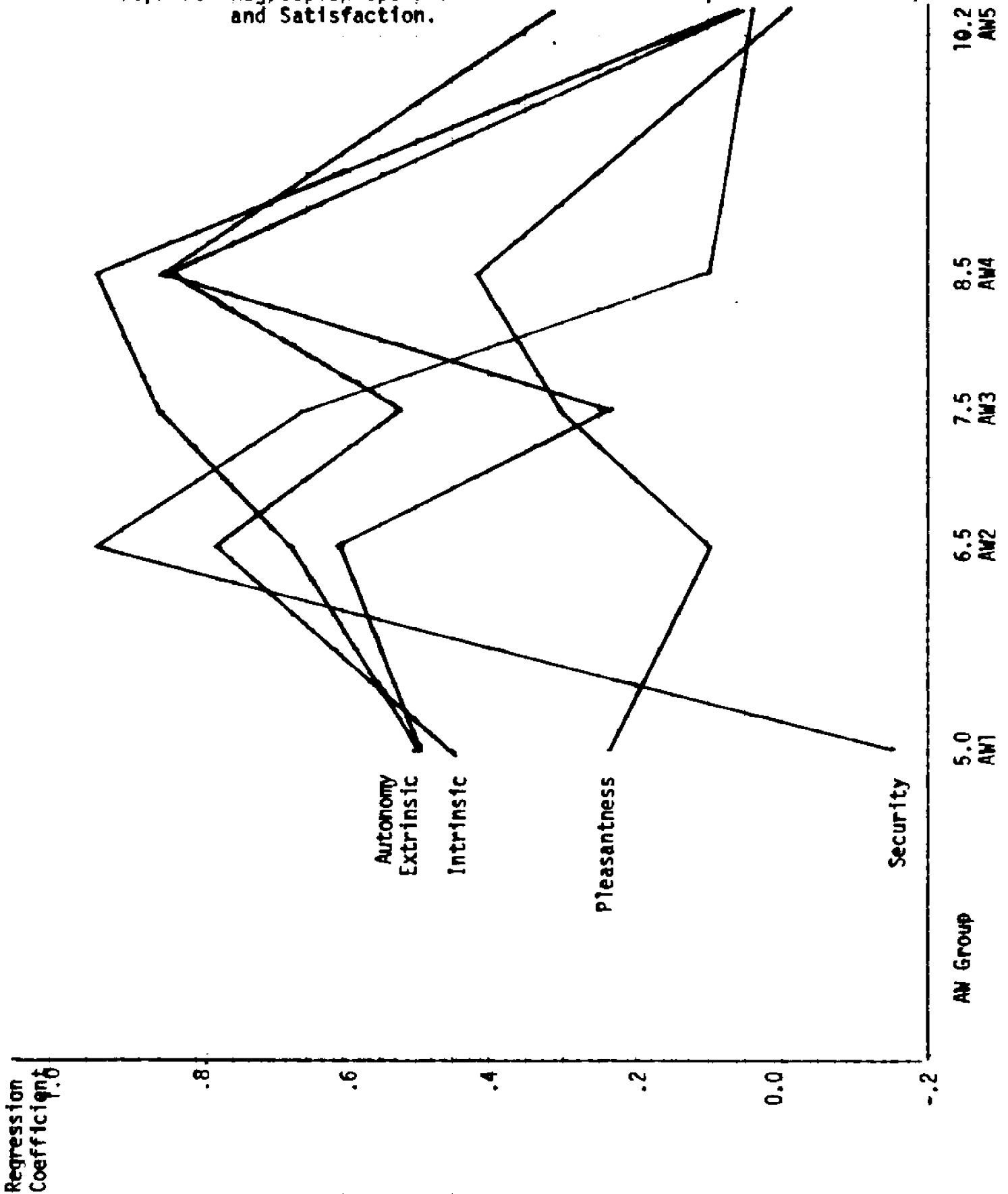
Autonomy
Pleasantness

Intrinsic

Graph 6.--Regression Coefficients for Relationships Between Upward Influence and Satisfaction.



Graph 7.--Regression Coefficients for Relationships Between Job Depth and Satisfaction.



FOOTNOTES

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Organizational Characteristics on Employee Satisfaction and Performance as a Function of the Employee's Need for Job Independence" (unpublished Ph.D. dissertation, Baruch College, City University of New York, 1969).

⁷¹Robert J. House and Lawrence A. Wigdor, "Cosmopolitans and Locals: Some Differential Correlations Between Leader Behavior, Organizational Practices, and Employee Satisfaction and Performance," abstracted in Academy of Management Proceedings, 1969, 135-37.

⁷²Robert J. House and Steven Kerr, "Organizational Dependence, Leader Behavior and Managerial Practices: A Replicated Study," Journal of Applied Psychology, (1973), in press.

⁷³Grimes and Berger, 407.

⁷⁴The House and Wigdor study, for example, reported a reliability of .876, using a Spearman-Brown Prophecy Formula Correction of the Kuder Richardson Formula 20.

⁷⁵Grimes and Berger, 412.

⁷⁶Victor H. Vroom, Work and Motivation (New York, John Wiley and Sons, 1964).

⁷⁷Alan C. Filley and Robert J. House, Managerial Process and Organizational Behavior, (Glenview, Illinois, Scott, Foresman, and Company, 1969), 360-61.

⁷⁸Victor H. Vroom, Motivation in Management (New York, American Foundation for Management Research, 1965), 32.

⁷⁹Grimes and Berger, 413.

⁸⁰Merton, 401.

⁸¹Gouldner, Administrative Science Quarterly, II, 281-306.

⁸²Pingry, 1969.

⁸³Blau and Scott, 66.

⁸⁴Grimes and Berger, 411.

⁸⁵Grusky, 499.

⁸⁶McNaul, 108-09.

⁸⁷Merton, 402.

⁸⁸Gouldner, Administrative Science Quarterly, II, 281-306.

⁸⁹For the exact wording of the response choices and the relative position of these items in the total questionnaire, see Appendix 1.

page 1 items 1 and 2, and page 14 items 1, 3, and 4.

⁹⁰Abrahamson, Administrative Science Quarterly, IX, 203-18.

⁹¹Merton, 395.

⁹²Gouldner, Administrative Science Quarterly, II, 281-306.

⁹³Cudd, 1969.

⁹⁴Grusky, 492.

⁹⁵Blau and Scott, 69.

⁹⁶Martin Patchen, Some Questionnaire Measures of Employee Motivation and Morale: A Report on Their Reliability and Validity (Ann Arbor, Institute for Social Research, University of Michigan, 1965).

⁹⁷Brown, 346.

⁹⁸House and Kerr, in press.

⁹⁹Merton, 394-95.

¹⁰⁰Gouldner, Administrative Science Quarterly, II, 281-306.

¹⁰¹Merton, 394.

¹⁰²Grusky, 493.

¹⁰³Pingry, 40.

¹⁰⁴For the exact wording of the response choices and the relative position of these items in the total questionnaire, see Appendix 1, page 3 items 19 and 20; page 42 item 11; page 7 column 14; page 14 items 2 and 5, and page 2 item 12.

¹⁰⁵For a discussion of the rationale behind the use of the Spearman-Brown Prophecy Formula Correction, see Allen L. Edwards, Statistical Methods for the Behavioral Sciences (New York, Holt, Rinehart and Winston, 1964), 176. In brief, the Kuder Richardson Formula 20 is a "split-half" reliability test, which in effect derives two scores, one for odd items and another for even items in the scale. Since the resultant coefficient obtained by Kuder Richardson is actually for only half of the scale, the Spearman Brown adjustment is necessary to correct for the fact that the reliability coefficient is influenced by the number of items in the test.

¹⁰⁶Leon Festinger, Henry W. Riecken, and Stanley Schachter, When Prophecy Fails (New York, Harper Torchbooks, 1956), 26.

¹⁰⁷Merton, 402.

¹⁰⁸McNaul, 105.

109 House and Wigdor, 136.

110 Merton, 396-97.

111 Ibid., 398-99.

112 For the location of these items in the questionnaire see Appendix 1 page 37.

113 The Mann-Whitney U is a non-parametric test, and depends upon the assumption that the data are at least ordinal. For a discussion of this test see Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences (New York, McGraw-Hill, 1956), 116-27.

114 All of these items were answerable on a 1 to 7 scale, with 1 representing an opinion that the statement is "definitely not true," while a 7 indicates that the statement is "extremely true." For the location of these items in the questionnaire, see Appendix 1, pages 16 through 24 (item numbers 16, 32, 34, 103, 105, 109, 116, and 126).

115 These items were answerable on a 1 to 7 scale, with 1 representing an opinion that the statement is "definitely not true," while a 7 indicates that it is "extremely true." For the location of these items in the questionnaire, see Appendix 1 items 15 and 16 on page 10.

116 Patchen, 57.

117 For the location of this item in the questionnaire see item 12 on page 38.

118 For the location of this item in the questionnaire, see item 17 on page 2.

119 For a discussion of the "professional ladder," see Goldner and Ritti, 489-99.

120 Scott, 272.

121 Goldner and Ritti, 499.

122 Miller, 762.

123 These items were answerable on a 1 to 7 scale, with 7 representing the opinion that "a great deal" of the characteristic should be present and 1 indicating that "very little" of the characteristic ought to be. For the location of these items in the questionnaire, see items 20 and 34 on pages 7 and 8.

124 These items were answerable on a 1 to 5 scale, with a 1 indicating that the factor is "not important at all, never considered." A 2 represents "rather unimportant, rarely considered." A 3 indicates "occasionally important, sometimes considered." A 4 stands for "usually important, often considered." Finally, a 5 means that the factor is "of utmost

importance, always considered." These items appear in the questionnaire on pages 28 and 29.

¹²⁵Miller, 755-56.

¹²⁶The exact wording of response choices for both the Job Depth and Job Scope items are shown in Appendix 1, pages 25 through 27.

¹²⁷For references to the LBDQ see Ralph M. Stogdill, Managers, Employees, Organizations (Columbus, Ohio, Bureau of Business Research, 1965).

¹²⁸For available response choices see Appendix 1, page 2, question 11.

¹²⁹For specific instructions see Appendix 1, page 4.

¹³⁰Wigdor, 1969.

¹³¹John R. Rizzo, Robert J. House, and Sidney E. Lirtzman, "Role Conflict and Ambiguity in Complex Organizations," Administrative Science Quarterly, XV (1970), 150-63.

¹³²John P. Waunous and Edward E. Lawler III, "Measurement and Meaning of Job Satisfaction," Journal of Applied Psychology, LVI (1972), 95.

¹³³For the specific instructions see Appendix 1, page 6.

¹³⁴House and Wigdor, 136-37.

¹³⁵Steven Kerr, Robert J. House, and Lawrence A. Wigdor, "Some Moderating Effects of Organizational Independence," Proceedings of the Eastern Academy of Management, (Williamshurg, Virginia, 1971), 40-49.

¹³⁶Mahmoud K. Badawy, "Selected Research on Scientists and Engineers in Industry: A Review and Assessment," Academy of Management Journal, XIII (1970), 210-12.

¹³⁷Mahmoud K. Badawy, "Understanding the Role Orientations of Scientists and Engineers," Personnel Journal, L (1971), 449-85.

¹³⁸Goldner and Ritti, 491. Similar findings have been reported by Richard R. Ritti, The Engineer in the Industrial Corporation (New York, Columbia Press, 1971); Robert Perrucci, "Engineering," American Behavioral Scientist, XIV (1971), 492-506; Robert Perrucci and J. Gerstl, Profession Without Community: Engineers in American Society (New York, Random House, 1969).

¹³⁹Clovis R. Shepherd, "Orientation of Scientists and Engineers," Pacific Sociological Review, IV (1961), 79-83.

¹⁴⁰Ritti, Industrial Relations, VII, 118-31.

¹⁴¹Merton, 402.

¹⁴²Grimes and Berger, 413.

¹⁴³Gouldner, Administrative Science Quarterly, II, 281-306.

¹⁴⁴Robert J. House, "A Path Goal Theory of Leader Effectiveness," Administrative Science Quarterly, XVI (1971), 322.

¹⁴⁵Goldner and Ritti, American Journal of Sociology, LXXII, 489-502.

¹⁴⁶To be classified as a Local, the person must have been categorized as low in both Ability and Willingness. This means that, according to Table 11, his Ability score could not have exceeded 2.8, while his Willingness score could have been no higher than 2.3. By multiplying 2.8 and 2.3 we obtain a maximum possible Local product of 6.44. The minimum possible Cosmopolitan score can be obtained by following the same procedures.

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