THE RELATIONSHIP BETWEEN INNOVATION AND THE STYLES OF HANDLING INTERPERSONAL CONFLICT

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ABSTRACT

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This study looks at the behavioral view of innovation and considers how innovators and adaptors deal with interpersonal conflict with subordinates. A number of differences have previously been found between innovators and adaptors, but one major area that has not been investigated is the relationship between these two types and organizational conflict. The five styles of handling interpersonal conflict: integrating, obliging, dominating, avoiding, and compromising were examined in relation to the adaption-innovation theory. It was hypothesized that innovators would utilize different styles of handling conflict than adaptors, and that specifically innovators would be more integrating and dominating and less obliging and avoiding than adaptors. It was hypothesized that there would be no difference in the use of the compromising style between innovators and adaptors.

The sample consisted of 210 employed graduate and undergraduate students from Youngstown State University. Two questionnaires, a conflict inventory and an innovation inventory, together with a demographic sheet were administered in the spring and fall of 1982. The questionnaires asked students to respond to questions about their immediate supervisor, rather than themselves, in the hopes of reducing the problem of social desirability response bias.

Statistical analysis provided support for the hypotheses. A discriminant analysis showed that innovators are more integrating and dominating in handling conflict with subordinates, and that adaptors are more avoiding in handling conflict with subordinates,

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CHAPTER I

INTRODUCTION

Innovation has been called "...a major factor, if not the major factor, assuring the well-being and growth of this nation's economy" (Sharwell, 1981, p. 6). Research suggests that technological innovation alone accounts for one third of the growth of the Gross National Product (Denison, 1967; Jorgenson, 1979). Unfortunately, there appears rather recently a number of indicators to suggest that the United States is suffering a depressing downturn in innovative activity (Fernilious & Waldo, 1980). This decline in innovation has been called the "graying of America" (Hays, 1977, p. 6), and is seen as "a significant threat to U.S. dominance of world-wide markets in the 1990's" (How Four Companies, 1980, p. 1). Therefore, the need for increasing innovation in industry is being continuously stressed by organizational theorists, management consultants, and corporate executives.

In order to understand and attempt to reverse the declining trend in innovation, it is necessary to empirically study the construct through the use of valid and reliable scientific research. Current research on innovation is of two types: a macro organizational approach and a micro behavioral approach. Although much emphasis has been placed

on the macro approach, which focuses on the creation of an organizational climate conducive to the acceptance of change and new ideas, relatively few studies have looked at the behavioral approach. The behavioral study of innovation is still relatively new, but is a promising alternative to the macro approach. A behavioral study examines the behavior of the individual, in this case the emphasis is on how the innovative person differs from the non-innovative person.

One theory suggests that all people fall on a continuum measure of innovation with the poles labeled adaptive and innovative (Kirton, 1976). Innovators and adaptors solve problems in characteristically different ways. Adaptors suggest solutions that fit neatly within the structure of the organization, while innovators suggest changes that are often seen as threatening to upset the organization's equilibrium. Innovators and adaptors have a number of behavioral differences which result in different treatment by others; adaptors are often seen as stabilizers and innovators are often seen as trouble-makers.

A major area of research that has not yet been investigated is the relationship between adaption-innovation and organizational conflict. Because adaptors and innovators have different orientations in approaching problems, and are viewed differently by others, it is expected that these two types will not handle interpersonal conflict in the same ways. Researchers (Thomas, 1976; Rahim & Bonoma, 1979) have shown that interpersonal conflict can be handled

in five different styles; these styles are labeled: integrating, dominating, obliging, avoiding, and compromising. Each style is appropriate depending on the situation. it is desirable to know what styles individuals use in order to manage conflict properly. Conflict must be managed properly in order for an organization to attempt to maximize its effectiveness.

The present study will explore the relationship between adaption-innovation and the five styles of handling conflict. It is hypothesized that differences do exist in how adaptors and innovators handle conflict. Adaptors are expected to be avoiding and obliging, and innovators are expected to be integrating and dominating in handling interpersonal conflict with subordinates. The conflict-handling styles of the adaptors and innovators need to be appropriately identified so that their conflict can be managed effectively.

This study involves basic research on organizational behavior and will be of particular interest to researchers and practitioners involved in the human aspects of organizations. The personnel specialist, for example, may wish to further investigate adaption-innovation and conflict styles in relation to the selection, training, and placement of employees.

The next chapter delves more fully into the concept of innovation; approaches in innovation research, and the nature of adaptive and innovative individuals. Chapter III

deals with the concept of organizational conflict, its definition, styles versus amount of conflict, and the styles of handling interpersonal conflict. Chapter IV presents the related research on innovation and styles of handling interpersonal conflict, and describes the hypotheses of the study. Chapter V describes the research methodology including the survey instruments, the demographic information, and the procedure for data analysis. The results of the study are presented in Chapter VI, and the last chapter presents the interpretations of these results and the conclusion.

CHAPTER II

INNOVATION IN ORGANIZATIONS

Approaches in Innovation Research

Researchers have generally approached the question of how to increase innovative activity in two different ways: a macro organizational approach, and a micro behavioral approach.

The macro approach generally involves a broad overview of those industries that perform favorably in the area of innovation, and compares and contrasts them with less innovative industries. This research has invariably looked at ways to improve organizational climate, to make the wqrk environment more conducive to new and different ideas. Researchers utilizing the macro approach recommend stable funding for research and development, a philosophical managerial commitment to purposeful change, and the establishment of working conditions conducive to innovation (Cohn, 1981; Sharwell, 1981).

The other approach in innovation research has been to look at the organization in the micro sense, a behavioral view which examines the individuals responsible for innovative actitivity. Here research has centered on how various personality variables, such as intelligence, creativity, and adaptability relate to innovativeness. Because the beha-

vioral innovation approach is relatively new, there has been considerably less research than with the organizational approach; consequently there is a need for more micro studies.

Adaption and Innovation

It is Kirton's (1976) contention that people characteristically solve problems either by adapting "doing things better" or by innovating "doing things differently." Kirton's theory posits a continuum with ends labeled adaptive and innovative along which all people fall. Adaption-innovation is seen as a basic dimension of personality, a dimension which is clearly important in the analysis of organizational change. The adaptive person works within the confines of an appropriate consensually agreed paradigm. The innovative person, on the other hand, typically views the paradigm itself as an aspect of the problem. "Paradigm" is a term used by Kuhn (1970) to describe the structure of the problem, the regulations governing the problem, and assumptions, attitudes, and theories on which the problem is based. Thus, the adaptor while working within the paradigm, attempts to modify it or refine it in order to come up with an appropriate solution. The innovator, who is not bound by the confines of the paradigm, is more likely to discover and accept solutions which threaten to result in a switch of the paradigm. Thus, when the paradigm, or structure, is incorporated into the prob-

lem, the solution is often something completely innovative or radical. Conversely, the less the structure is questioned, the more the solution tends to be adaptive.

The observation that people do indeed characteristically adapt or innovate has led Kirton to explore behaviors that could be related to these two cognitive styles. Adaptors, for example, are seen as embodying precision, reliability, efficiency, are concerned with resolving problems, and approach problem solutions in traditional, understood ways. Innovators are seen as undisciplined, approaching problems in unconventional ways and from unsuspecting angles. Innovators are as concerned with finding and manipulating problems as they are with solving them. Kirton's (1977, p. 8) complete listing of behavior descriptions of adaptors and innovators is given in Table 1.

It is apparent that the adaptor fits well in the bureaucratic system. Weber (1948) wrote that bureaucracy has the goals of precision, reliability, and efficiency. Merton (1957) stressed that such a bureaucracy places pressure on managers to be methodical, prudent, disciplined, and conforming. These attributes are certainly those of the adaptive person, a person who is often highly valued and successful in large organizations.

Because the innovator does not follow the accepted patterns of thought and action, it is evident that he does not fit the traditional bureaucratic mold. The nature of innovative change leads to increased risk, uncertainty, and

Table 1

Characteristics of Adaptors and Innovators

The Adaptor	The Innovator
Characterized by precision, reliability, efficiency, methodicalness, prudence, discipline, conformity.	Seen as undisciplined, thinking tangentially, approaching tasks from unsuspected angles.
Concerned with resolving residual problems resulting from the current paradigm.	Searches for problems and alternative avenues of solution, cutting across current paradigms.
Seeks solutions to problems in tried and understood ways.	Queries problems' concomitant assumptions: manipulates problems.
Reduces problems by improvement and greater efficiency, with maximum of continuity and stability.	Is catalyst to settled groups, seen as abrasive and creating dissonance.
Seen as sound, conforming, safe, dependable.	Seen as unsound, impractical, often shocks his opposite.
Liable to make goals of means.	In pursuit of goals, treats means with little regard.
Seems impervious to boredom, seems able to maintain high accuracy in long spells of detailed work.	Capable of detailed routine (system-maintenance) work for only short bursts.
Is an authority within given structures.	Tends to take control in unstructured situations.
Challenges rules rarely, cautiously, when assured of strong support.	Often challeages rules, has little respect for past customs.
Tends to high self-doubt. Reacts to criticism by closer outward conformity. Vulnerable to social pressure and authority; compliant.	Appears to have low self-doubt when generating ideas, not needing consensus to maintain certitude in face of opposition.
When collaborating with innovators:	When collaborating with adaptors:
Supplies stability, order and continuity to the partnership	Supplies the task orientations, breaks with the accepted theory.
Appears sensitive to people, maintains group cohesion and co-operation.	Appears insensitive to people, Threatens group cohesion and co-operation.
Provides a safe base for the innovator's riskier operations.	Provides the dynamics to bring about periodic necessary radical change.

Source: Kirton, M.J. Manual of the Kirton Adaption-Innovation Inventory. London: National Foundation for Educational Research, 1977.

imprecision (Bright, 1964); and so the innovator tends to be less conforming of organizational rules, social norms, and typical work patterns. Kirton (1961) has found that the innovator makes changes in an atypical unexpected manner, and these changes are very often associated with noteworthy (unpleasant to the adaptor) precipitating events.

In describing innovators, the adjectives used are the same as those commonly attributed to creative individuals. Kirton (1976) makes note of this point and states that the literature on creativity has almost exclusively concentrated on innovators, even though innovators and adaptors may be equally creative. The reason for this is that the innovator attracts greater attention because he has a tendency to disrupt traditional modes of thought and action.

Innovation and Creativity

Creativity has interested researchers for many years, but there is no agreement on the exact meaning of the construct. Creative ability has been described as the capacity to produce ideas that are both new and useful (Reitz, 1977). Gough (1979) states that the testing of creativity often stresses: ingenuity, the ability to overcome constraining sets, and fluency in ideation. A major tenent of the adaption-innovation theory is that adaptors and innovators have equal levels of creativity. The theory states that individuals on the continuum have varying differences in the style of creativity rather than level or

amount of creativity (Kirton, 1978). In popular usage the term innovative implies creativity, but the term adaptive has no implication of creativity. Confusion is evident in the terms Kirton has selected; it intuitively appears that innovative individuals should be more creative than adaptive individuals. To eliminate this confusion, and to show support for his theory, Kirton (1978) compared the creativity levels of adaptors and innovators. In a study of 415 students, no significant correlations were found to exist between adaption-innovation and five measures of creativity level. Kirton's conclusions are that while some individuals may be more creative than others, and individual differences obviously exist, innovators, as a whole, are no more creative than adaptors. While both groups may be equally creative in problem solving, the paradigm or style of problem solving does differ greatly.

Distribution of Adaptors and Innovators

Adaptors and innovators both play crucial roles in an organization, and so it was surmised by Kirton (1978) that generally both should be found in equal numbers in management. Kirton did predict, however, that organizations existing in a stable environment would have a mean managerial score leaning toward adaptiveness, while organizations in a turbulent environment would have a nean managerial score in the direction of innovativeness. Keller and Holland (1978b) have indeed found systematic differences among

companies with respect to adaption-innovation scores of managers. In a study of three research and development organizations, a greater number of innovators than adaptors was found. Thus, empirical support was provided for the hypothesis that research and development companies employ innovative individuals.

Not only are there differences among companies in the ratio of innovative to adaptive employees, there is evidence to suggest that there are not equal proportions of the two types within the different divisions of the same company (Kirton, 1980). Research has shown that in organizational departments which have relatively little interaction with other departments, such as production, managers tended to be adaptive rather than innovative. Departments which operated as interfaces between divisions of the same company, or between the company and the external environment, tended-to have innovative managers. Managers involved in sales, for example, have been found more often than not to be innovative individuals.

Kirton (1976) claims that an optimum "balance" of adaptors and innovators should exist within the departments of an organization. This balance has not been operationally defined, and there is no research to substantiate the claims of improved performance resulting from a certain mix of adaptors and innovators. Much research remains to be conducted on the interpersonal relationships between adaptors and innovators, and how both types relate to others. A

major area of concern that needs to be investigated is how innovators and adaptors handle interpersonal conflict with others. Because the two types of individuals are viewed differently by others, and because the two types behave in different ways, it is expected that ways of handling conflict will also differ. As of this date, however, no studies have been conducted on the relationship between adaption-innovation and the styles of handling interpersonal conflict. This study will attempt to bridge the gap of knowledge by examining whether or not innovative and adaptive individuals do have differences in handling conflict. The next chapter will define organizational conflict and explain the various styles used in handling conflict.

CHAPTER III

CONFLICT IN ORGANIZATIONS

Definition of Conflict

Conflict is a subject in organizational research that has received a great deal of attention in recent years. Studies of organizational conflict have led to some revealing findings which can be utilized to improve organizational effectiveness. One study found that managers view conflict as an integral part of their daily work, and that managers at all levels spend approximately 20% of their time dealing with conflict (Thomas & Schmidt, 1976).

Conflict is a term that has been defined in many ways, and has often been confused with other terms including competition. Therefore an operational definition for conflict is necessary. Conflict occurs whenever a struggle for behavioral preferences, scarce resources, or competing values exists within or between organizations (Rahim & Bonoma, 1979). From this definition it is evident that conflict is a broad term encompassing interpersonal and intrapersonal conflict. Rahim (1977) has developed a useful taxonomic structure to explain the relationships of the various types of conflict. The four potential types of organizational conflict are intrapersonal, intragroup, intergroup, and interorganizational. The two primary divisions, how-

ever, are the intrapersonal and interpersonal; this study will look only at the interpersonal level of conflict.

Contrary to popular belief, conflict is not necessarily negative and should not always he avoided. In fact, some researchers have stressed the positive values of conflict stating that organizations stand to benefit from a moderate amount of conflict (Rahim, 1977); and that conflict provides a useful opportunity to improve relationships and create change (Roarke, 1978).

Conflict: Amount Versus Style

Research on the management of organizational conflict has progressed in two different directions. One approach has been directed at measuring the level or amount of conflict experienced by members of the organization, and exploring sources of this conflict (Pondy, 1969). The other approach in conflict research is to investioate the various styles or modes of managing conflict. Behavioral styles for handling interpersonal conflict were first presented in a conceptual scheme by Blake and Mouton (1964); the five modes they originated are: problem solving, smoothing, forcing, withdrawing, and sharing. Thomas (1976) redefined and extended the modes of handling interpersonal conflict.

Rahim and Bonoma (1979) renamed the five styles to: integrating, obliging, dominating, avoiding, and compromising. The styles of handling interpersonal conflict have been differentiated on two basic dimensions, concern for

self and for others. When the two dimensions are combined, the five styles of handling conflict can be illustrated as shown in Figure 1 (Rahim & Bonoma, 1979, p. 1327).

The first dimension, shown as the vertical axis, indicates the degree to which an individual desires to fulfill his own concerns. Although this dimension is a continuum, it is simply dichotomized as "high concern for self," and "low concern for self." The second dimension, shown on the horizontal axis, indicates the degree to which an individual desires to fulfill the concerns of the other person. The dichotomy of this dimension is "high concern for others," and "low concern for others." Each of the styles of handling conflict can be effective in different situations, and conflict can be managed functionally if the styles are used appropriately. A description of the five styles is given below.

Styles of Handling Interpersonal Conflict

The integrating style involves high concern for self as well as high concern for the other person. This style uses a problem solving approach which includes the sharing of ideas and information, as well as rationally confronting differences of opinion, so that a mutually acceptable solution may be reached. The individual using this approach realizes that the solutions of both parties may be equally viable, and so he collaborates with the other party in order to find the solution most beneficial to both. The integrat-

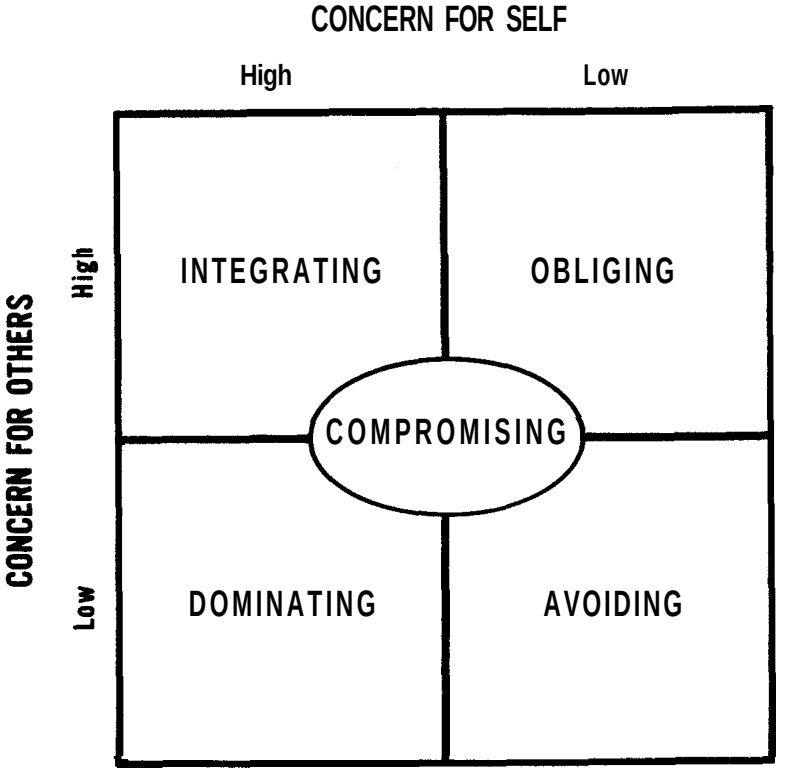

FIGURE 1. A Two-dimensional model of styles of handling interpersonal conflicts.

Source: Rahim, A., & Bonoma, T.V. Managing organizational conflict: A model for diagnosis and intervention. ~~Psycho~~logical Reports, 1979, 44, 1323-1344.

ing style is especially useful in solving particularly complex problems because an agreeable synthesis of ideas is possible. With this style of managing conflict the individuals work together, confront the problem directly, and avoid competition.

The obliging style of handling conflict involves low concern for self, but high concern for the other party. This style is essentially a smoothing technique whereby the differences in ideas or beliefs are minimized in order to appease and accommodate the other person. As might be expected, the obliging style is often used when a person is lacking confidence in his own ideas, or when he believes that the issue is of greater importance to the other party. The obliging style is also useful when harmony and stability within the organization are deemed to be highly desirable.

The dominating style, also known as the competing-or forcing style, involves a high concern for self and a low concern for the other party. With this style, the dominating person makes every effort to win his own position even at the expense of the needs and expectations of the other party. While this style is often seen as an unfavorable mode of resolving conflict, there are specific desirable situations for its use. When expediency is required, or if the conflict is of a trivial nature, the dominating style may be the most useful. Also, this style may be necessary when unpopular issues must be resolved.

The avoiding style of handling conflict involves low concern for self and low concern for the other party. An individual using this style withdraws from or sidesteps potential conflict. The avoiding style is desirable in certain situations where the gravity of the issue is less important than the potential unpleasant ramifications of confronting the other party. This style is also useful when the issue is trivial in nature.

The compromising style of handling conflict is essentially a mixed style in which both parties make concessions in order to achieve a mutually acceptable solution. In using the compromising style the individual must be willing to give in on some of his positions in order to win the others. Compromising differs from the integrating sty1e in that there is not the synthesis of new ideas found in the other style. The compromising style is typically used when the two parties are in equally powerful positions, or when the goals of these parties are mutually exclusive.

Because each of the five styles of handling conflict has specific situations for appropriate use, no style is inherently better than another, and each style can be equally effective depending on the situation (Hart, 1981; Rahim & Bonoma, 1979; Thomas, 1977). In order for conflict to be managed properly, it is important that the recognition of one's styles of handling conflict be made. When the diagnosis of the conflict styles is made, intervention may be necessary for organizational members to learn the appropriate use of the five styles (Rahim, in press-c).

Now that both adaption-innovation arid the styles of handling conflict have been adequately defined and explained, the relationships between them can be discussed. The following chapter will look at these relationships and provide hypotheses on how adaptors and innovators differ on handling interpersonal conflict in organizations.

CHAPTER IV

ADAPTION-INNOVATION AND STYLES OF HANDLING CONFLICT

Relevant Research

Organizational theorists and researchers have long espoused the view that innovation is related to conflict. All of the work in this area, however, has concentrated on the macro organizational approach to innovation and how it is affected by the level of organizational conflict. Much of this research has been of a theoretical nature, and the results of some studies have been confusing due the non-standardized nonoperational definitions of conflict and innovation. No behavioral studies have yet been conducted on the relationship between adaption-innovation and the styles of handling interpersonal conflict. This lack of research exists in part because the adaption-innovation theory is relatively new, and also because a valid and reliable measure of conflict handling styles has been developed only very recently (Rahim, in press-b,c).

What are the predicted relationships between the adaption-innovation theory and the styles of handling conflict? Innovators tend to have greater confidence in their own ideas, and have less self-doubt than adaptors (Kirton, 1976). Thus, in terms of the conflict dimensions, innovators will most likely use the styles in which concern for

self is high, and adaptors will use the styles in which concern for self is low. The relationship of this first dimension of handling conflict with adaption-innovation shows that innovators are integrating or dominating while adaptors are obliging or avoiding. How concern for others, the second conflict dimension, relates to adaption-innovation is less clear. Adaptors are seen as being more 'sensitive' to people than are innovators, but this does not tell us whether or not adaptors have a higher concern for others than do innovators.

A recent study by Carne and Kirton (1982) can shed more light on how innovators and adaptors differ in their styles of handling conflict. These researchers tested the relationship between adaption-innovation and the personality dimensions as measured by the Myers-Briggs Type Indicator (MBTI) (Myers, 1962). The MBTI measures four Jungian personality dimensions: sensing-intuition, thinking-feeling, judging-perceiving, extraversion-introversion. In the Carne and Kirton (1982) study a sample of 109 managerial students was given the MBTI along with a measure of innovative-adaption. Innovators were found to be intuitive, perceptive, and extraverted. Conversely, adaptors were found to be sensing, judging, and introverted. These personality attributes are consistent with Kirton's (1976) theory of adaption-innovation.

Rahim (in press-b) has explored the relationship between the four dimensions of personality as measured by

the MBTI and the five styles of handling conflict. In using a collegiate sample of 297 business students, Rahim (in press-b) found that intuitive, extraverted, and perceiving persons tended to be dominating; extraverts tended to be integrating; and introverts tended to be avoiding. Because innovators are intuitive, perceiving, and extraverted, and these three personality types are related to the integrating and dominating conflict styles, it can be inferred that innovators will then be integrating and dominating. Because adaptors are introverted, and introversion is related to the avoiding conflict style, it is fair to assume that adaptors will make use of the avoiding style of handling conflict.

Hypotheses

Taking into consideration the observation that innovators have high concern for self and adaptors have low concern for self, and assumptions derived from the results of the linking personality studies, the following hypotheses are postulated:

H1: Innovators are more integrating and dominating than adaptors in handling their interpersonal conflict with subordinates.

H2: Adaptors are more obliging and avoiding than innovators in handling their interpersonal conflict with subordinates.

H3: Adaptors and innovators are not siynificantly different in using the compromising style of handling interpersonal conflict with subordinates.

CHAPTER V

METHOD

Procedure

A modified version of the Kirton Adaption-Innovation inventory (KAI) and the Rahim Organizational Conflict Inventory II (ROCI 11), Form A were administered to a sample of graduate and undergraduate students from Youngstown State University. The two questionnaires and a demographic sheet were administered to a number of classes in various departments (primarily business and education) in the spring and fall quarters of 1982. Questionnaires were given only to students who indicated that they were (a) presently working, and (b) had a supervisor. Students were given instruction on the completion of the questionnaires, and upon the approval of the instructor, either completed the instruments during the class period or took the questionnaires home and returned them at the beginning of the next class period.

Altogether, 305 sets of questionnaires were distributed; of this number, 225 or 74% were returned. Fifteen of the returned questionnaires did not meet the criteria set by the investigator, therefore 210 cases (68% of the total distributed) were utilized in the study. Because both questionnaires required accurate information about the student's boss, it was decided that only those who were presently

working for at least (a) one year as for full-time workers, or (b) two years as part-time workers would be accepted. Questionnaires which did not meet the criteria were dropped from the analysis in order to provide greater validity for the study.

Subjects

Of the 210 respondents 106 were male students and 104 were female. Graduate students comprised nearly three-fourths (n = 151) of the sample, the remainder (n = 59) were undergraduates. The graduate students had a median age of 28 compared to 23 for the undergraduates. Most students (n = 155) were full-time workers, the remainder (n = 55) worked part-time. The median number of years at the present job was 5.1 for the graduates and 3.2 for the undergraduate students. The range of the supervisors' ages was 22 to 65 with a median of 44. One hundred seventy of the supervisors were male and 40 were female.

Instruments

Conflict Inventory

The instrument used to measure the styles of handling superior-subordinate conflict was a variation of the ROCI-II, Form A (Rahim, in press-a). Form A asks the respondent to indicate how he handles conflict with his boss. The modified version of the questionnaire asks the respondent to indicate how his boss handles conflict with him.

Thus, while Form A measures conflict styles used with supervisors, the revision of Form A measures a subordinate's perception of how his boss handles conflict with him.

It was decided to utilize a measure in which the individual rates someone else (his boss) rather than himself in order to reduce the possibility of socially desirable responses (Howat & London, 1980). Receiving socially desirable answers, or responses which the test-taker believes people would like to hear, is a common problem in survey research (Crown & Marlowe, 1960). Questionnaires which ask for self-evaluation of some trait, ability, or belief of an individual are so often fraught with social desirability response bias that the results of the study are meaningless.

The original ROCI-II, Form A had seven statements for each of the five conflict handling styles: integrating, obliging, dominating, avoiding, and compromising, for a total of 35 statements. Rahim (in press-a) dropped seven items which did not load properly in the factor analysis. These seven items have been revised and were included in this study. The questionnaire has a 5-point Likert scale with the response choices: Strongly Agree, Agree, Undecided, Disagree, and Strongly Disagree. A higher score represents a greater use of a particular conflict style. The independence of the conflict handling styles allows the formation of five separate continuous scales. A copy of the original ROCI-II Form A is shown in Appendix A, and the modified version used in this study is shown in Appendix B.

ROCI-II was selected for use because of the construct and external validity, and test-retest and internal consistency reliability of the scales (Rahim, in press-c). The instrument has been carefully constructed to measure the styles of handling interpersonal conflict, and has received rigorous testing with managerial and collegiate samples. Until recently, much of conflict research has been ineffective due to the use of poor measuring instruments (Thomas & Kilmann, 1978; Rahim, 1981). By using the ROCI-II questionnaire, the shortcomings of many previous studies of interpersonal conflict could be avoided.

Innovation Inventory.

The questionnaire used to measure innovation was a modified version of the Kirton Adaption-Innovation Inventory (KAI) (Kirton, 1976). The KAI contains 32 items which are scored on a 5-point Likert scale. The scores are added together to give one adaption-innovation score, a high score indicates innovation, while a low score indicates adaption. Scores can range from 32 to 160, and 96 is the theoretical mean.

The KAI is composed of three subscales called: originality, efficiency, and conformity. Innovators score high on originality, while adaptors score high on efficiency and conformity. One study found that the 13 items of the originality scale correlated .88 with the entire KAI, and that this scale could be used as a valid and reliable shortened version of the complete innovation inventory (Keller & Holland, 1980a).

Although the KAI is a well constructed and thoroughly tested questionnaire, it does suffer from some minor flaws that this study attempted to rectify. Even though most individuals expressed no problems with the KAI, it was felt that there were enough queries to warrant some changes. Difficulties in dealing with the test instructions were actually a result of Kirton's attempt to reduce the occurrence of socially desirable responses. The KAI is a self-evaluation questionnaire, but the instructional format has been altered in a unique manner in order to reduce the likelihood of socially desirable answers. Unfortunately, these changes also make the test instructions more difficult to comprehend.

The instructions of the KAI ask the respondent to indicate how difficult, or easy, it would be to maintain a certain image consistently for a ~~long time~~ (See Appendix C). The fact that the individual is asked to rate the degree of difficulty of presenting an image of himself, rather than a direct rating of himself, is a method which should provide fewer socially desirable reponses. Indeed, research has shown that the KAI is relatively free from social desirability response bias (Kirton, 1978). It was found that all of the items in the KAI showed a negligible correlation with the Lie scale of the Eysenck Personality Inventory (Eysenck & Eysenck, 1964).

It was felt that the low social desirability of the KAI could be achieved through the use of a less confusing

format. Again it was decided to utilize the method advocated by Howat and London (1980) in which the individual rates not himself but another person, typically his boss. In general, it has been found that subjects give a more objective evaluation of others than they do themselves.

New and simpler instructions were prepared in which the respondent is asked to rate his boss on each of the questionnaire items. This approach is more parsimonious and so less confusing than the instructions of the original KAI. All of the test items were left essentially unchanged except for the addition of the words "My boss is..." at the beginning of each item. The first item, a "blind" item was dropped because it was thought to be unnecessary. The response headings for the KAI are: Very Easy, Easy, Hard, Very Hard; these were changed to a typical 5-point Likert scale with the choice of responses being: Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree. Next to each item on the KAI is a line of 17 dots on which the respondent is to place and "X" to indicate his degree of response. It was felt that this system of dots was cumbersome and impractical, and so was replaced with the numbers 1 to 5 to correspond with the response headings. The oriqinal KAI and the modified version are shown in Appendix C and D, respectively.

In addition to the two questionnaires, deniographic information was collected from each participant. Respondents were asked to report their age, sex, occupation, num-

ber of years at present job, full-time or part-time work, student status, and school major. Also, respondents were asked to give information about their current supervisor; title, age, sex, and organizational level of the boss were requested. The complete demographic sheet is listed in Appendix E.

Analysis of Data

The data were analyzed using the Statistical Package for the Social Sciences (SPSS) (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975). Appendix E lists a copy of the program which includes the various statistical tests used to analyze the data.

An important procedure of any survey research is the testing of the validity and reliability of the instruments. Both the revised forms of ROCI-II and the KAI were tested for construct validity and internal consistency reliability. Factor analysis, which has been called the most powerful method of construct validation (Kerlinger, 1973), and Cronbach alpha, a useful measure of internal consistency reliability (Cronbach, 1951), were both utilized in the analysis.

A stepwise multiple discriminant analysis was performed to see if the five conflict scales could discriminate between adaptors and innovators (Hull & Nie, 1981). The originality scale of the KAI was used as the measure of adaption-innovation. Two groups were created for the dis-

criminant analysis; adaptors were those who scored lower than the theoretical adaption-innovation mean, and innovators were those who scored higher than this mean. The following chapter describes the results of these analyses.

CHAPTER VI

RESULTS

Validity of the Inventories

Factor analyses using principle factor with iteration and varimax rotation were conducted on both inventories. The factor analysis of the modified KAI yielded three identifiable factors which are consistent with the three scales of the original KAI. The eigenvalues for factors I, II, and III were 7.1 (originality), 4.9 (efficiency), and 1.2 (conformity), respectively. Together the three factors accounted for 83% of the variance in the data. Items that did not load > .40 or that loaded > .30 in a second factor were dropped from subsequent analyses in order to improve results. Nineteen of the 32 items met the criteria of factor loading. Because the originality scale retained the most items (10 out of 13), and because this scale is the one which measures innovation, it was decided to use this revised scale for further analysis.

The factor analysis of the ROCI-II items resulted in five factors, but only three factors had eiqenvalues > 1.0. The integrating scale made up the first factor (eigenvalue > 12.0) although some of the items from the compromising and obliging scales were also included in this factor. The avoiding and dominating scales were identified as the second

and third factors, with eigenvalues of 4.2 and 2.2, respectively. Together, the three factors explained 91.3% of the variance in the data. Because the obliging and compromising scales did not emerge as individual factors, and could only confound the results, it was decided to remove them from the discriminant analysis. All of the items of the three remaining factors, integrating, dominating, and avoiding met the factor loading criteria and were retained in the study.

Reliability of Inventories

Table 2 presents the means, standard deviations, and the internal consistency reliabilities of the revised scales of the originality scale of the KAI, and the three conflict style scales of ROCI-II. The alpha coefficient of the originality scale is acceptable at .89. Each of the conflict handling scales has alpha coefficients > .81 with the integrating scale the highest at .95. These coefficients of internal consistency reliability are acceptable and compare quite favorably with the original scales of the two inventories.

Yearson's correlations

The Pearson's correlations among the conflict scales and between the originality scale and the conflict scales are shown in Table 3. As can be seen, high intercorrelations ($r^2 > .60$) exist among three of the conflict scales: integrating, obliging, and cornpromising. These intercorre-

Table 2

Means, Standard Deviations, and Internal Consistency Reliability Coefficients of the Modified RAI Originality Scale and ROCI-II Scales

Scale	M	SD	Cronbach Alpha
KAI			
Originality	3.31	.85	.89
ROCI-II			
Integrating	3.53	1.02	.95
Dominating	3.54	.76	.81
Avoiding	3.02	.92	.86

Table 3

Pearson's Correlations Among the Modified ROCI-II Scales, and Between the Three Conflict Scales and the KAI Originality Scale

		IN	DO	AV	OB	CO
Integrating	(IN)	1.00	2	-.34	.68	.77
Dominating	(DO)		1.00	.26	-.33	-.46
Avoiding	(AV)			1.00	.09	-.15
Obliging	(OB)				1.00	.69
Compromising	(CO)					1.00
Originality		.71	-.26	-.51		

lations are consistent with the results of the factor analysis in which some of the obliging and compromising items merged into the integrating factor. Pearson's correlations between the originality scale and the three scales of conflict styles show a positive relationship between innovation and the integrating and dominating scales, and a negative relationship between innovation and the avoiding scale.

Discriminant Analysis

Table 4 shows the results of the stepwise multiple discriminant analysis. Wilks lambda was the criterion used for the stepwise selection. The group centroids for the adaptors and innovators are -1.14 and .57 respectively. The three conflict-handling styles resulted in canonical discriminant coefficients: integrating (.96), avoiding (-.40), and dominating (.31). These results suggest that innovators are integrating and that adaptors are avoiding, and also that innovators are to a lesser extent dominating. The classification analysis shows that 82% of the cases are correctly classified.

In order to cross-validate the discriminant functions, a random sample of 40% of the cases was used for developing the functions. This function was used to classify the innovators and adaptors in the holdout sample of the remaining 60% of the cases. The functions correctly classified 81% of the cases in the holdout sample. To see if the classifications were statistically significant, the

Table 4

Stepwise Multiple Discriminant Analysis using the Modified KAI for Comparing the Styles of Handling Conflict Between Adaptors and Innovators

Eigenvalue	Canonical Correlation	Wilks Lambda	Chi Square	DF
.66	.63	.60*	102.35*	3

Conflict Scales	Standardized Canonical Discriminant Function Coefficients	Group Centroids	
Integrating	.96	Adaptors	-1.14
Dominating	.31	Innovators	.57
Avoiding	-.40		

*p .001

chance ratio was calculated using the proportional method (Hair, Anderson, Tatham & Grablowsky, 1979). Since 54% of the cases could be expected to be correctly classified by chance alone, a level of at least 68% was needed to be significant. Because more than 80% of the cases were correctly classified in the entire sample and in the split sample test, the results of the discriminant analysis are significant.

CHAPTER VII

DISCUSSION

In analyzing the results of the discriminant analysis, it can be seen that the hypotheses of the study are partially supported. It has been clearly shown that innovators are integrating and not avoiding in handling conflict with subordinates. Adaptors, conversely, have been shown to be avoiding and not integrating in handling conflict with subordinates. To a lesser extent, innovators are also seen by their subordinates as being dominating. Nothing can be said about the other two styles of handling conflict because they were not identifiable as independent factors.

The problem with high intercorrelations among three factors in the conflict inventory seems to be a result of the modification of the questionnaire. The fact that an individual is asked to rate his boss results in a different perceptual orientation than when the person is asked to rate himself. Apparently, the respondent views the conflict styles differently depending on whether he is rating himself or his superior. When rating his boss, the respondent tends to merge the integrating, obliging, and compromising styles. Thus, when the boss is obliging or compromising with his subordinate, the subordinate views that action positively as if it is integrating. Understandably, the avoiding and

dominating styles remain independent because the subordinate is able to correctly identify the use of these styles by his superior.

Even though Howat and London (1980) mention that self-rating has problems with social desirability, and that the rating of another person may alleviate that problem, it appears that the other-rating questionnaire has its own set of problems. In the case of the modified ROCI-II used in this study, the problems found with the factor structure were most likely due to differing perceptual viewpoints respondents have between self-rating and other-rating questionnaire.

The use of the other-rating questionnaires raises the possibility of a problem with the error of central tendency. Kerlinger (1973) describes the error of central tendency as the tendency of the respondent to score down-the middle or neutral response of a questionnaire. This error occurs when the respondent either does not understand the questionnaire items or if he does not have the knowledge to answer these items. An analysis of each of the items of the two inventories showed that some items did have high response frequencies for the middle 'undecided' response. In the present study it is likely that some of the respondents could not accurately answer the items because their knowledge of their bosses' behavior was not sufficient.

The data were reanalyzed in order to test the stability of the results, and to locate any source of error

within the sample which could help to explain the high intercorrelations among the conflict styles. Pearson's correlations were conducted selecting only for graduate students, undergraduate students, full-time workers, part-time workers, males, females, or combinations of these, and the results were similar. High intercorrelations existed among the same three conflict styles, intercorrelations which probably would not result from poor data but from the perception that the three styles are the same. Also, the internal consistency reliabilities of the two inventories were good, and the appropriate factors emerged in the factor analysis of the modified KAI inventory.

This study has two limitations which should be addressed. First, the research was an ex post facto field study and so is subject to the problems with internal validity that are inherent in this type of study. Ex post facto field studies generally have less internal validity than laboratory experiments because of the inability to control for all sources of secondary variation (Robinson, 1976). On the positive side, however, the study has high external validity. Most subjects were mature graduate students with full-time jobs and several years' work experience. Because the research dealt with workers with meaningful jobs, the results of the study can indeed be generalized to the real work environment.

The second limitation of this study is that the sample was nonrandom and convenient. Additional research uti-

lizing random selection of subjects will be necessary before it can be said with complete assurance that the results can be generalized to all populations. Further research could also compare the relative merits and problems associated with using the self-rating versus the other-rating questionnaire.

What are the implications of this study? The knowledge of the specific styles of handling conflict used by innovators and adaptors can be useful in several ways. First, because the styles of handling conflict are known, it is possible to manage conflicts properly. Organizational members can be taught to understand conflict-handling styles used by adaptors and innovators in order to improve interpersonal communication. Second, the encouragement of the use of the integrating style, and to a lesser extent, the dominating style may help foster the development of an innovative environment. In organizational departments, such as research and development, which are concerned primarily with creating new ideas or products, the inteqrating style may be stressed. Conversely, the encouragement of the use of the avoiding style may result in increased organizational stability. Departments which are more concerned with maintaining the stability and consistency in the organization, such as accounting or perhaps production, may find that greater use of the avoiding style of handling conflict will provide this needed stability.

In conclusion, the objective of this study was to conduct basic behavioral research which could shed some light on the problem of lack of innovation in organizations. Specifically, the relationship between adaption-innovation and the styles of handling conflict was investigated. The results of statistical analyses provided partial support for the hypotheses, and show that adaptors are seen by their subordinates as avoiding, and innovators are seen as integrating, and to a lesser extent, dominating.

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Appendix A

Rahim Organizational Conflict Inventory-II

FORM A

You may have incompatibilities, disagreements, or differences (i.e., conflict) with your boss. Rank each of the following statements to indicate how you handle your conflict with your boss. Try to recall as many recent conflict situations as possible in ranking these statements.

There are no right or wrong answers. The response which is most characteristic of your behavior, in a situation of conflict with your boss, is the best answer. Any other answer, which may be considered as more desirable or acceptable, will simply lead to misleading information.

STATEMENTS	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
01. I try to investigate into an issue with my boss to find a solution acceptable to us	5	4	3	2	1
02. I generally fry to satisfy the needs of my boss	5	4	3	2	1
03. I attempt to avoid being "put on the spot" and try to keep my conflict with my boss to myself	5	4	3	2	
04. I try to Integrate my ideas with those of my boss to come up with a decision jointly	5	4	3	2	1
05. I give some to get some	5	4	3	2	1
06. I try to work with my boss to find solutions to a problem which satisfy our expectations	5	4	3	2	
07. I usually avoid open discussions of my differences with my boss	5	4	3	2	1
08. I usually hold on to my solution to a problem	5	4	3	2	1
09. I try to find a middle course to resolve an impasse	5	4	3	2	1
10. I use my Influence to get my ideas accepted	5	4	3	2	
I use my authority to make a decision in my favor	5	4	3	2	
I usually accommodate the wishes of my boss					

	STATEMENTS	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
13.	I give in to the wishes of my boss.	5	4	3	2	1
14.	1 win some and I lose some	5	4	3	2	1
15.	I exchange accurate information with my boss to solve a problem together . . .	5	4	3	2	1
16.	I sometimes help my boss to make a decision in his favor	5	4	3	2	1
17.	I usually allow concesstons to my boss . . .	5	4	3	2	1
18.	I argue my case with my boss to show the merits of my position	5	4	3	2	1
19.	I try to play down our differences to reach a compromise	5	4	3	2	1
20.	I usually propose a middle ground for breaking deadlocks	5	4	3	2	1
21.	I negotiate with my boss so that a compromise can be reached	5	4	3	2	1
22.	I try to stay away from disagreement with my boss.	5	4	3	2	1
23.	I avoid an encounter with my boss	5	4	3	2	1
24.	I use my expertise to make a decision in my favor	5	4	3	2	1
25.	I often go along with the suggestions of my boss	5	4	3	2	1
26.	I use "give and take" so that a compromise can be made	5	4	3	2	1
27.	I am generally firm in pursuing my side of the issue	5	4	3	2	1
28.	I try to bring all our concerns out in the open so that the issues can be resolved in the best possible way	5	4	3	2	1
29.	I collaborate with my boss to come up with decisions acceptable to us	5	4	3	2	1

STATEMENTS	Strongly Agree	Agree	Undecide	Disagree	Strongly Disagree
30. I try to satisfy the expectations of my boss	5	4	3	2	1
31. I sometimes use my power to win a competitive situation	5	4	3	2	1
32. I try to keep my disagreement with my boss to myself in order to avoid hard feelings . . .	5	4	3	2	1
33. I try to avoid unpleasant exchanges with 'my boss	5	4	3	2	1
34. I generally avoid an argument with my boss. .	5	4	3	2	1
35. I try to work with my boss for a proper understanding of a problem	5	4	3	2	1

DEMOGRAPHIC INFORMATION

1. Organizational experience (years) _____

2. Sex: ___ Male ___ Female

3. Your functional area (check one):

___ a. Production

___ b. Marketing

___ c. Finance & Accounting

___ d. Personnel

___ e. General Management

___ f. R/D

___ g. Other (specify)

_____

4. Managerial or staff level (check one):

___ a. Top: President, Vice-President

___ b. Middle: Department Managers

___ c. Lower: Managers, Staff Personnel

5. Education (check one):

___ a. High school completed

___ b. 2-year college

___ c. Bachelor's degree

___ d. Master's degree

___ e. Other (specify)

_____

6. Number of employees _____

Appendix B

Modified conflict Inventory

Your boss may have incompatibilities, disagreements, or differences (i.e., conflict) with you. Rank each of the following statements to indicate how your boss handles his/her conflict with you. Try to recall as many recent conflict situations as possible in ranking these statements.

There are no right or wrong answers. The response which is more characteristic of your boss' behavior, in a situation of conflict with you, is the best answer. Any other answer, which may be considered as more desirable or acceptable, will simply lead to misleading information.

STATEMENTS	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
01. My boss tries to investigate an issue with me to find a solution acceptable to us.....	5	4	3	2	1
02. My boss generally tries to satisfy my needs.....	5	4	3	2	1
03. My boss attempts to avoid being "put on the spot" and tries to keep his/her conflict with me to himself/herself.	5	4	3	2	1
04. My boss tries to integrate his/her ideas with those of mine to come up with a decision jointly.....	5	4	3	2	1
05. My boss would rather give in and get a little than leave an issue unresolved.....	5	4	3	2	1
06. My boss tries to work with me to find solution to a problem which satisfy our expections.....	5	4	3	2	1
07. My boss usually avoids open discussion of his/her differences with me.....	5	4	3	2	1
08. If my boss is convinced that her/his solution to a problem is correct, s/he holds on to it.....	5	4	3	2	1
09. My boss tries to find a middle course to resolve an impasse.....	5	4	3	2	1
10. My boss uses his/her influence to get his/her ideas accepted.....	5	4	3	2	1
11. My boss uses his/her authority to make a decision in his/her favor.....	5	4	3	2	1
12. My boss usually accommodates my wishes.....	5	4	3	2	1
13. My boss gives in to my wishes.....	5	4	3	2	1

	STATEMENTS	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
14.	My boss usually makes concessions, if I amwilling to do the same, to make a decision.....	5	4	3	2	1
15.	My boss exchanges accurate information with me to solve a problem together.....	5	4	3	2	1
16.	My boss usually goes along with ma if my decision is a good one.....	5	4	3	2	1
17.	My boss usually allows concessions to me.....	5	4	3	2	1
18.	Once my boss arrives at a good decision, s/he does not want to reverse it easily.....	5	4	3	2	1
19.	My boss highlights our areas of agreement, in case of an Impasse, to increase the possibility of a compromise.....	5	4	3	2	1
20.	My boss usuaily proposes a middle ground for breaking deadlocks.....	5	4	3	2	1
21.	My boss negotiates with me so that a compromise can be reached.....	5	4	3	2	1
22.	My boss tries to stay away from disagreements with me.. ...	5	4	3	2	1
23.	My boss avolds an encounter with me.....	5	4	3	2	1
24.	My boss uses his/her expertise to make a decision in his/her favor.....	5	4	3	2	1
25.	My boss often goes along with my suggestions.....	5	4	3	2	1
26.	My boss uses "give and take" so that a compromise can be made.....	5	4	3	2	1
27.	My boss is generally firm in pursuing his/her side of the issue..	5	4	3	2	1
28.	My boss tries to bring all our concerns out in the open so that the issues can be resolved In the best possible way..	5	4	3	2	1
29.	My boss collabcrates with me to come up with decisions acceptable to us.....	5	4	3	2	1
30.	My boss tries to satisfy my expectations.....	5	4	3	2	1
31.	My boss sometimes uses his/her power to win a competitive situation.....	5	4	3	2	1
32.	My boss tries to keep his/her disagreements. with me tn himself/herself in order to avoid hard feelings.....	5	4	3	2	1

	STATEMENTS	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
33.	My boss tries to avoid unpleasant exchanges with me.....	5	4	3	2	1
34.	My boss sometimes avoids an argument with me so as not to disrupt our working relationship.....	5	4	3	2	1
35.	My boss tries to work with me for a proper understanding of a probl.....	5	4	3	2	1

NAME

AGE SEX

OCCUPATION/TITLE

DEPARTMENT

EDUCATIONAL STATUS

TOTAL SCORE

TRAIT SCORES

O

E

R

KIRTON ADAPTION–INNOVATION INVENTORY (KAI) RESPONSE SHEET

Please read these notes **before completing** the other side of this sheet.

We all find it necessary to present a particular image of ourselves consistently over a long period. In some cases this proves easy as we are like this; sometimes it is very difficult as we are not like this at all.

For instance, some of us are early risers. It is easy for such people to present the image of good timekeepers at work. So if you are an early riser and were asked how easy or hard it is for you to present an image at work of a good timekeeper you would put a clear cross on the scale below on or near 'Very Easy'.

Very Hard	*Hard*	*Easy*	*Very Easy*
. . . . .	. . . . .	. . . . .	X . . .

If you are the extreme other sort, you would find being on time every morning for a long period difficult, and you may well **put** a cross on the scale at the 'Very Hard' end.

Please indicate the degree of difficulty (or easel that would be required for you to maintain the image, consistently for a long time, that is asked of you by each item below.

How easy or difficult do you **find** it to **present yourself, consistently,** over **a** long **period, a:**

	Very Hard	Hard	Easy	Very Easy
1. A person who b patient	. . . . .			
2. A **person** who conforms.	. . . . .			
3. **A person** who when **stuck will** always think of **something.**	. . . . .			
4. A person who enjoys the detailed work.	. . . . .			
5. A person who **would sooner** create something than **improve it**	. . . . .			
6. A **person** who is prudent when dealing with authority or general opinion.	. . . . .			
7. A **person** who nwer acts without proper authority.	. . . . .			
8. A person who never seeks to bend (much **less** break) the **rules.**	. . . . .			
9. **A person** who likes **bosses** and work **patterns** which ere consistent.	. . . . .			
10. A **person** who holds back **ideas** until they are obviously needed.	. . . . .			
11. **A person who has fresh** perspectives on old problems.	. . . . .			
12. **A** person who **likes** to vary **set** routines st a moment's notice.	. . . . .			
13. **A person** who **prefers** changes to occur gradually.	. . . . .			
14. A **person** who is thorough.	. . . . .			
15. **A person** who is a steady plodder.	. . . . .			
16. A **person** who copes with several new **ideas** and problems at the **same** time.	. . . . .			
17. **A person** who **is** consistent	. . . . .			
18. **A person** who is able to stand out in disagreement alone **against** a group of equals and **seniors.**	. . . . .			
19. A **person** who is stimulating.	. . . . .			
20. A **person** who readily agrees with the team at work.	. . . . .			
21. A **person** who has original ideas.	. . . . .			
22. A **person** who **masters** ail details painstakingly.	. . . . .			
23. A **person** who proliferates **ideas.**	. . . . .			
24. A person who **prefers** to work **on** one problem at a time.	. . . . .			
25. A **person** who is **methodical** and systematic.	. . . . .			
26. A **person** who often risks doing things differently.	. . . . .			
27. A person who works without deviation in a prescribed way.	. . . . .			
28. A **person** who likes to impose strict order on **matters** within own control.	. . . . .			
29. A **person** who likes the protection of precise instructions.	. . . . .			
30. A **person** who fits readily into '**the** system'.	. . . . .			
31. A **person** who needs the stimulation of frequent change.	. . . . .			
32. A **person** who **prefers** colleagues who never 'rock the boat'.	. . . . .			
33. A person who is predictable.	. . . . .			

PLEASE CHECK THAT YOU HAVE ANSWERED ALL 33 QUESTIONS

Appendix D

Modified Innovation Inventory

In your work experience you may have noticed that some bosses tend to exhibit originality in problem solving while other bosses are more inclined to exhibit efficiency or conformity. Rank each of the following items in the manner which is most characteristic of your present boss' behavior. There are no right or wrong answers.

	STATEMENT	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
01.	My bass has original ideas....	5	4	3	2	1
02.	My boss prefers to work on one problem at a time.....	5	4	3	2	1
03.	My boss works without deviation in a prescribed way.....	5	4	3	2	1
04.	My boss likes the protection of precise instructions... .	5	4	3	2	1
05.	My boss will always think of something when stuck.....	5	4	3	2	1
06.	My boss is prudent when dealing with authority.....	5	4	3	2	1
07.	My boss imposes strict order on matters within own control..	5	4	3	2	1
08.	My boss is thorouuh.....	5	4	3	2	1
09.	My boss needs the stimulation of frequent change.....	5	4	3	2	1
10.	My boss holds back ideas until obviously needed.....	5	4	3	2	1
11.	My boss likes work patterns which are consistent.....	5	4	3	2	1
12.	My boss would sooner create than improve.....	5	4	3	2	1
13.	My boss can stand out in disagreement against group.....	5	4	3	2	1
14.	My boss masters all details painstakingly.....	5	4	3	2	1
15.	My boss proliferates ideas.....	5	4	3	2	1
16.	My boss is predictable.....	5	4	3	2	1
17.	My boss conforms.....	5	4	3	2	1
18.	My boss is a steady plodder.....	5	4	3	2	1
19.	My boss has fresh perspectives on old problems..	5	4	3	2	1

	STATEMENTS	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
20.	My boss is consistent.....	5	4	3	2	1
21.	My boss is methodical and systematic.....	5	4	3	2	1
22.	My boss often risks doing things differently.....	5	4	3	2	1
23.	My boss fits readily into the system.....	5	4	3	2	1
24.	My boss is stimulating.....	5	4	3	2	1
25.	My boss enjoys detailed work.....	5	4	3	2	1
26.	My boss likes to vary set routines at a moment's notice..	5	4	3	2	1
27.	My boss prefers changes to occur gradually.....	5	4	3	2	1
28.	My boss prefers colleagues who never "rock the boat".	5	4	3	2	1
29.	My boss copes with several new ideas at the same time.....	5	4	3	2	1
30.	My boss readily agrees with the teams at work.....	5	4	3	2	1
31.	My boss never acts without proper authority.....	5	4	3	2	1
32.	My boss never seeks to bend or break the rules..	5	4	3	2	1

Form AI is a modification of the Kirton Adaption-Innovation Inventory

Appendix E

Demographic Sheet

YOUNGSTOWN STATE UNIVERSITY

YOUNGSTOWN, OHIO 44666

The School of *Business Administration*

Dear Respondent,

Thank you For agreeing to participate in this survey which will provide much needed data for my Masters thesis. Because you are asked to give information about your boss, vou must be currently employed and have a supervisor in order to fill out the questionnaires. Together the two questionnaires typically take students no more than eight or nine minutes to complete. Your individual responses will be confidential, and if you have any questions about this survey, feel free to contact me at the YSU Management Department, 742-3071. Please return these questionnaires to your instructor at the beginning of the next class period.

Thank you for your help,

Douglas E. Eshleman

Demographic Information

1. Name:_____ (optional)
2. Age: _____
3. Sex: _____Yale _____Female
4. Occupation: _____
5. Number of years at present job: _____Years
6. Present job: _____Full time _____Part tine
7. Student status: _____Graduate _____Undergraduate
8. School major: _____

The Eollowing questions are about the person you currently work for.

1. Title of boss: _____
2. Sex of boss: _____Male _____Female
3. Age of boss: _____ (Approximate)
4. Boss' level in organization:
   A. First level supervisor _____
   B. Middle level supervisor_____
   C. Upper level manager _____

Appendix **F**

SPPS Programs

```
//B0028546 JOB ($$ROUTE4),
// SR181001.DOUG,MSGLEVEL=1,CLASS=I
// EXEC SPSS
//SYSIN DD *
FILE NAME          THESIS--THE RELATIONSHIP BETWEEN INNOVATION AND
                   THE STYLES OF HANDLING INTERPERSONAL CONFLICT
RUN NAME           DEMOGRAPHICS, RELIABILITY, FACTOR ANALYSIS
                   PARTIAL CORRELATIONS, DISCRIMINANT ANALYSIS
VARIABLE LIST      ID,R1 TO R32,S1 TO S35,AGE,SEX,YEARS,JOB,
                   STATUS,BSEX
INPUT FORMAT       FIXED(F3.0,67F1.0,F2.0,F1.0,F2.0,3F1.0)
N OF CASES         210
INPUT MEDIUM       CARD
VAR LABELS         S1 TO S35,CONFLICT HANDLING STYLES/R1 TO R32,
                   INNOVATION STYLES/AGE,AGE OF RESPONDENT/SEX,
                   SEX OF RESPONDENT/YEARS,YEARS AT PRESENT JOB/
                   JOB, FULLTIME OR PARTTIME WORK/STATUS,STUDENT
                   STATUS/BSEX,SEX OF BOSS
VALUE LABELS       SEX(1)MALE(2)FEMALE/JOB(1)FULL TIME(2)PART
                   TIME/STATUS(1)GRADUATE(2)UNDERGRADUATE/BSEX
                   (1)MALE(2)FEMALE/
RECODE             R2,R27,R7,R8,R14,R18,R20,R21,R25,R3,R4,R6,R10,
                   R11,R16,R17,R23,R28,R30,R31,R32(1=5)(2=4)(4=2)
                   (5=1)
COUNT              N1=S1,S4,S6,S15,S28,S29,S35(0)
COMPUTE            INT=(S1+S4+S6+S15+S28+S29+S35)/(7-N1)
COUNT              N2=S2,S12,S13,S16,S17,S25,S30(0)
COMPUTE            OBL=(S2+S12+S13+S16+S17+S25+S30)/(7-N2)
COUNT              N3=S8,S10,S11,S18,S24,S27,S31(0)
COMPUTE            DOM=(S8+S10+S11+S18+S24+S27+S31)/(7-N3)
COUNT              N4=S3,S7,S22,S23,S32,S33,S34(0)
COMPUTE            AVO=(S3+S7+S22+S23+S32+S33+S34)/(7-N4)
COUNT              N5=S5,S9,S14,S19,S20,S21,S26(0)
COMPUTE            COM=(S5+S9+S14+S19+S20+S21+S26)/(7-N5)
COUNT              N6=R1,R5,R6,R7,R8,R9,R13,R14,R15,R16,R17,R19,
                   R21,R22,R23,R24,R25,R29,R30(0)
COMPUTE            AI=(R1+R5+R6+R7+R8+R9+
                   R13+R14+R15+R16+R17+R19+R21+R22+R23+
                   R24+R25+R29+R30)/(19-N6)
COUNT              N7=R1,R5,R9,R13,R15,R19,R22,R24,R29(0)
COMPUTE            ORIGIN=(R1+R5+R9+R13+R15+R19+R22+R24+R29)/
                   (9-N7)
COUNT              N8=R7,R8,R14,R21,R25(0)
COMPUTE            EFFIC=(R7+R8+R14+R21+R25)/(5-N8)
COUNT              N9=R6,R16,R17,R23,R30(0)
COMPUTE            CONFORM=(R6+R16+R17+R23+R30)/(5-N9)
IF                 (SEX EQ 1)SEXD=1
MISSING VALUES     ALL(0)
```

```
PEARSON CORR    ORIGIN,INT,OBL,DOM,AVO,COM WITH INT,OBL,DOM,
                AVO,COM/
STATISTICS      1
READ INPUT DATA


RELIABILITY     VARIABLES=S1,S4,S6,S15,S28,S29,S35,S8,S10,S11,
                S18,S24,S27,S31,S3,S7,S22,S23,S32,S33,S34/
                SCALE(INT)=S1,S4,S6,S15,S28,S29,S35/
                SCALE(DOM)=S8,S10,S11,S18,S24,S27,S31/
                SCALE(AVO)=S3,S7,S22,S23,S32,S33,S34/
STATISTICS      1
RELIABILITY     VARIABLES=R1,R5,R9,R13,R15,R19,R22,R24,R29/
                SCALE(INN)=R1,R5,R9,R13,R15,R19,R22,R24,R29/
STATISTICS      1


IF              (ORIGIN LT 3)ORIGIN=1
IF              (ORIGIN GE 3)ORIGIN=2
COMPUTE         SET=TRUNC(UNIFORM(2.5))
DISCRIMINANT    GROUPS=ORIGIN(1,2)/VARIABLES=INT,DOM,AVO/
                ANALYSIS=INT,DOM,AVO/METHOD=WILKS/
OPITIONS        5,7,9,11
STATISTICS      1,2,6
DISCRIMINANT    GROUPS=ORIGIN(1,2)/VARIABLES=INT,DOM,AVO/
                SELECT=SET(0)/
                ANALYSIS=INT,DOM,AVO/METHOD=WILKS/
OPTIONS         5,7,9,11
STATISTICS      1,2,6


FACTOR          VARIABLES=R1 TO R32/TYPE=PA2/ROTATE=VARIMAX/
OPTIONS         2
STATISTICS      1,2,5,6
FACTOR          VARIABLES=S1 TO S35/TYPE=PA2/ROTATE=VARIMAX
OPTIONS         2
STATISTICS      1,2,5,6
FINISH
/*
```