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TOWARDS A DEVELOPMENTAL MODEL  
OF JOB INVOLVEMENT

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TOWARDS A DEVELOPMENTAL MODEL  
OF JOB INVOLVEMENT

By

Samuel Rabinowitz

A DISSERTATION

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## ABSTRACT

### TOWARDS A DEVELOPMENTAL MODEL OF JOB INVOLVEMENT

By

Samuel Rabinowitz

Job involvement (JI; "the degree to which a person is identified psychologically with his work, or the importance of work in his total self-image"; Lodahl and Kejner, 1965, p. 24) has been discussed as one of the central measures by which we can assess quality of work life. JI research to date has not explored the relationship of pre-job and on-the-job factors in terms of their influence on the development of JI.

The current study was designed to test a proposed developmental model of JI. The basic model tested was: personal/demographic variables → personal/psychological variables → situational variables → outcomes → JI. Additionally, three theories of JI: 1) JI as an individual differences variable, 2) JI as a function of the situation, and 3) JI as a result of the additive effects of both individual differences and situation variables were proposed and investigated in order to link past JI research with the current study.

Questionnaire data were collected at three time periods approximately 10 months apart from 161 Lansing area high school graduates of June 1976 who were full time workers at the time of the last data collection. Stepwise multiple regression was employed in the testing of the proposed theories of JI, while maximum likelihood path analysis was utilized in order to test the proposed model.

Some support was found for the additive effects theory of JI. The combination of variables found to significantly relate to JI included participation in job training, personal orientation, reward expectancy, job satisfaction, dealing with others, job scope, and socio-economic status. They accounted for 18.2 percent of the variance in JI. Support was limited when the application of a shrinkage formula revealed that the expected cross-validated  $R^2$  would be .00. To be noted is the fact that, due to missing data, the sample sizes differed in the stepwise regression tests of the three theories. Thus, there may have been a change in sample characteristics which could partially account for results obtained.

The second portion of the study attempted to arrive at a more specific ordering of potential predictors of JI. Through the process of model-trimming, variables were systematically eliminated in order to produce an optimal fit. This revised model accounted for a relatively small portion of the variance in JI (9%).

In terms of specific relationships, the strongest paths leading to JI appear to start with either participation in high school activities or high school grades. The intermediate paths in the model connect these variables through need strength to dealing with others, which, in turn, leads to job satisfaction. Finally, job satisfaction leads (negatively) to JI. A lesser path linked the aforementioned personal/demographic variables (grades, participation in high school activities) through need strength to job scope which, in turn, led to both job satisfaction and reward expectancy, finally linking up to JI. The flavor running through the relationships here appears to be one of social interaction with others starting with high school days (at least) and carrying over into work. For example, those individuals who were the more active participants in high school activities displayed higher levels of need strength. Perhaps the importance of relatedness needs (within the need strength variable) emerges in that these individuals perceive greater amounts of dealing with others on their jobs which make them more satisfied. Social factors related to work should be explored further in the JI research.

Future research should address itself to further exploration of the roots and development of JI via the use of longitudinal research designs. The current study presented one possible model of JI development; alternative

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models could be explored. In addition, attempts should be made to tie together parallel research in the areas of job alienation and JI. The study of models leading to alienation or involvement might aid in early career placement and counseling.

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## CHAPTER I

### LITERATURE REVIEW

How does job involvement (JI; "the degree to which a person is identified psychologically with his work, or the importance of work in his total self-image"; Lodahl & Kejner, 1965, p. 24) develop in a person? What factors influence an individual's decision to be involved in his/her job? Previous research has given us a number of variables which relate to JI after the person has been on the job (i.e., data collected after employment began). JI research to date has not explored the developmental influences on a person before s/he begins the job. The need to study such a process has been noted by researchers such as Hall (1976) who stated that, "More small theories of how people perform various career processes are needed . . . how people become committed to an area of work . . . (p. 44)."

The present research attempts to bridge the gap between the developmental and on-the-job factors which affect a person's level of JI. It does so by looking at high school graduates of June 1976 and tracing them over time in terms of their developing interests. Specifically,

data has been collected from them at three points in time (approximately 10 months apart) in order to explore factors which influence their decision behavior, and job attitudes.

### Why Look at JI

The desire to improve the quality of work life in the workplace has become a major societal issue in the past decade. JI has been discussed as one of the central measures by which we can assess quality of work life. The link between JI and satisfaction of workers with various aspects of their jobs is presented as some evidence that JI is important to the worker.

From an organizational viewpoint, the relationship of JI to "bottom line" variables such as absenteeism and turnover is important. The costs of replacing an absent employee or one who quits can be staggering. In a study of bank employees, Mirvis and Lawler (1977) showed how job attitudes such as JI act as predictors of future attendance and turnover. In one sample of 160 tellers from 20 branches, Mirvis and Lawler calculated through human resource accounting methods that by enhancing job attitudes by one-half standard deviation, direct personnel costs related to absenteeism, turnover, and work quality could be reduced by \$21,715.20 for the 160 bank tellers as a whole. Therefore, increasing the JI of employees may not increase their performance, but it will markedly reduce personnel costs,



which in many organizations represent the largest expense item in the budget.

### Overview and Presentation of Model

In order to tie together past research efforts with the current study, the literature review initially centers around the definitions associated with JI and three theories which deal with the development of JI. Empirical studies in support of these theories, which specifically relate variables in the current study to JI will be discussed. From here an attempt to reach some consensus on the theories will be made. Initially, hypotheses based on each theory will be proposed and later tested in a way which will tie past research to the current research and an hypothesized model dealing with the development of JI will then be proposed. It is generally hypothesized that this model will be supportive of the "JI as a function of both individual differences and situational variables theory" (Rabinowitz & Hall, 1977). This theory states that both individual difference and situational measures additively affect JI. The proposed model, based on longitudinal data, specifies the hypothesized causal ordering of these variables. The general model is:

```

personal/demographic→personal/psychological→situational→
  variables                variables                variables
outcomes→JI

```

The personal/demographic variables to be explored include socioeconomic status (SES), participation in high school activities, and high school grades. Personal/psychological variables to be explored are higher order need strength, locus of control, and personal orientation. The list of situational variables to be examined includes job scope, amount of dealing with others, and participation in job-related training courses. Finally, the outcomes are job satisfaction, and reward expectancy. While some of these variables have been previously explored in relation to JI (e.g., job scope), others are being examined for the first time (e.g., personal orientation).

#### How JI is Predicted to Develop

Logically speaking, demographic and psychological variables exist before the individual ever begins the first job. These occur through the socialization and growing up process. Vocational choice theorists such as Holland (1973) would predict that a variety of demographic factors (e.g., SES) would affect the personality development of the individual (e.g., high SES may lead to strong higher order needs). At a later point, after the person has begun a new job, the proposed model would predict that individuals with certain personality traits (e.g., strong higher order needs) would gravitate toward a situation conducive to their needs (e.g., high job scope). From a time-based perspective, it seems logical that affective reactions or

outcomes (e.g., job satisfaction) would develop after the individual has been placed into and had a chance to evaluate his/her situation. Feelings of JI would be expected to develop if the prior conditions are met. Such a path model is the ultimate aim of this study and adds to the research in the area by looking at the development over time of JI with a group of individuals just starting out in the job world. Further, this study will tie some principles of vocational psychologists (i.e., Holland) to organizational psychology variables. Additionally, it explores new variables in relation to JI.

#### What is JI?

Throughout the literature, many different terms have been used to describe JI, and it is the aim here to attempt an integration. Terms such as central life interests, work role involvement, ego-involvement, ego-involved performance, occupational involvement, morale, intrinsic motivation, job satisfaction, cosmopolitan, and finally, job involvement have all been mentioned in describing what appear to be two different concepts: (a) performance--self-esteem contingency and (b) component of self-image.

#### JI as Performance--Self-Esteem Contingency

The first class of definitions might be considered as the extent to which self-esteem is affected by level of

performance (Lodahl & Kejner, 1965). Many of the above terms fit under this definition.

In Allport's (1947) treatment of the psychology of participation, ego-involvement was defined as the situation in which the person "engages the status-seeking motive" (p. 123) in his work. (The person is seeking self-esteem as well as esteem of others.)

Guion (1958) defined morale as

ego involvement in one's job . . . There is something to be said for the attitudinal frame of reference in which a man perceives his job to be so important to himself, to his company, and to society that his superiors' "blunders" are not to be tolerated (p. 60).

Faunce (1959) stated that occupational involvement

means the commitment to a particular set of tasks or task area where successful role performance is regarded as an end in itself and not a means to some other end. With this type of commitment, self-esteem will be tested through performance in a particular occupational role and in terms of an evaluation of intrinsic rather than extrinsic products of role performance (p. 10).

Thus, Faunce saw the degree of occupational involvement as referring to the extent to which success and failure in the occupational role affects self-image. Similarly, Gurin, Veroff, and Feld (1960) viewed involvement in terms of the degree to which performance affects self-esteem. For French and Kahn (1962), the centrality of an ability is the degree to which it affects self-esteem; if job performance is central to the worker, then we have "ego-involved performance." They stated that "this implies that his job performance will affect his self-esteem" (p. 19). Vroom

(1962) describes a person as ego-involved in a job or task to whatever extent his self-esteem is affected by his perceived level of performance. In other words, for Vroom, involvement exists when a person's feelings of esteem are increased by good performance and decreased by bad performance. Finally, Lawler (1969) applied the term "intrinsic motivation" to this area, which refers to the degree to which a job holder is motivated to perform well because of some subjective rewards or feelings that he expects to receive or experience as a result of performing well. Thus, Lawler would argue that one aspect of intrinsic motivation exists when esteem, feeling of growth, etc. are tied to performance.

This series of definitions seems to tie together in that it describes the job-involved person as one for whom work is a very important part of life (a "central life interest," Dubin, 1956), and as one who is very much personally affected by his whole job situation: the work itself, his coworkers, the company, etc. On the other hand, the non-job-involved worker does the majority of his living off the job. Work is not as important a part of his psychological life. His interests are in some other area, and the core of his self-image, the essence of his identity, is not greatly affected by the kind of work he does or how well he does it. It should be noted in reference to Guion (1958), that the job-involved worker is not necessarily happy with

his job; in fact very angry people may be just as involved in their jobs as very happy ones (Lodahl & Kejner, 1965).

#### JI as a Component of Self-Image

The above statements bring us to a second conceptual way of describing JI, which is "the degree to which a person is identified psychologically with his work, or the importance of work in his total self-image" (Lodahl & Kejner, p. 24). This definition appeared in the abstract but not the body of the Lodahl and Kejner article, whereas the previously cited performance-esteem definition was discussed in the body of their paper but not the abstract. This could leave a reader wondering which of the two definitions the authors were actually focusing on. Seemingly, they justified their use of both definitions in their conclusions by describing JI as multi-dimensional in nature.

Lawler and Hall (1970) focused on JI as referring to "psychological identification with one's work," as well as "the degree to which the job situation is central to the person and his identity" (pp. 310-311). They were quite explicit in drawing distinctions between the two concepts presented as JI. As can be observed, they adapted Lodahl and Kejner's definition of JI as the degree of psychological identification with one's work. The performance-esteem conceptualization of JI was considered to be a measure of intrinsic motivation (as previously defined by Lawler, 1969).

Maurer (1969) employed the term "work role motivation" to describe the "degree to which an individual's work role is important in itself, as well as the extent to which it forms the basis of self-definition, self-evaluation, and success-definition" (p. 26). Maurer described "self-definition" as the "degree to which an individual defines or conceptualizes himself as a person primarily in terms of his work role" (p. 26). This appears to be similar to the psychological identification concept of job involvement. However, we can look at the way Maurer defined self-evaluation, which is "the extent to which an individual evaluates or ranks himself as a person in terms of his work role" (p. 26), and "success-definition," which is the "degree to which an individual defines success in terms of work role success" (p. 26), and observe that if these two terms are merged they would closely relate to the performance-esteem definition of JI. Thus we can see that Maurer attacked the conceptual problem by applying both ways of viewing JI to his work.

Patchen (1970) used various types of job motivation indices to view the general devotion of energy to job tasks. One of these indices, developed to tap "general interest" in the job, is quite similar to the concept of JI as identification (or dedication). Patchen admittedly considered the construct of JI as a convenient label summarizing several characteristics that make the job more important

and potentially more satisfying to the individual. Patchen's concept is yet another display of the lack of certainty in regard to the construct of JI. In a very general sense he was concerned with personal goals (motivations and feelings with respect to the job). The job-involved person is highly motivated and feels a sense of pride in his work. This viewpoint would seem to parallel the performance-esteem theme. Related to this is Patchen's interest in the internal motivation to perform well (intrinsic motivation, as discussed by Lawler, 1969). In addition, Patchen used a measure termed "identification with one's occupation," which supposedly measured how important one's occupation role is to one's self-image. This can be thought of as parallel to the "identification" definition of JI. Further, Patchen hypothesizes that one who is highly "identified" will be more likely to feel pride in job achievement than one whose occupation plays a minor role in his self-identification. Thus Patchen's theorizing included aspects of both popular concepts of JI.

Finally, tied closely to the "self-image" definition of JI is a concept discussed by Gouldner (1957, 1958). He hypothesized that organizations (primarily professional ones) contain a mix of two types of employees, "cosmopolitans" and "locals." Cosmopolitans are viewed as being more committed to their specialized roles than to the organization itself. Locals, on the other hand, are more committed



to the organization than to their specialized roles. As can be seen, the cosmopolitan orientation is quite similar to the "self-image" definition presented for JI.

Based on a recent review of the JI research, the "self-image" definition appears to be more closely tied to research results than the "contingency" definition (Rabinowitz & Hall, 1977). A consideration of items used as a measure of JI in the current study (Lodahl & Kejner, 1965) reveal that the "contingency" definition would present an inaccurate picture of the construct, thus the "self-image" definition has been applied.

It is clear that there is a great deal of conceptual confusion and proliferation of terms in our theorizing about the construct labeled "job involvement." As will be seen, the confusion does not stop at the theoretical level, but rather continues in the empirical studies of involvement, where JI has been viewed in three ways: as an individual difference variable, as a situationally determined variable, and as a person-situation joint effects variable.

#### THEORIES OF JI

Rabinowitz and Hall (1977) recently specified three theoretical perspectives dealing with JI and its development: (1) JI as an individual difference variable; (2) JI as a function of the situation; and (3) JI as an individual-situation interaction.

### JI as an Individual Difference Variable

Job involvement as conceived by Dubin (1956) is intimately tied up in the Protestant Work Ethic, the moral character of work and a sense of personal responsibility. Anyone who has internalized these traditional values will probably be "job involved," regardless of the situational context within which he might be employed (Runyon, 1973).

Lodahl (1964) hypothesized that the main determinant of JI is a value orientation toward work that is learned early in the socialization process. Lodahl further believed that JI operationalizes the Protestant Ethic in some ways; since it is the result of the introjection of certain values about work into the self, it is probably resistant to changes in the person due to the nature of a particular job.

In their studies, Hulin and Blood (1968) also focused in on the notion of individual differences. They felt that as a result of extrawork socialization processes, many blue-collar workers in urban industrial environments have no desire for ego need gratification while on the job. In contrast to the job-involved individual, these workers mainly view their jobs as a means to an end. Work enables them to satisfy their primary needs off the job. The central theme of Hulin and Blood's (1968) and Blood and Hulin's (1967) work is "alienation from middle-class norms." Closely approximating the Protestant Ethic, middle-class

norms are beliefs concerning the goodness of work and man's spiritual obligation to partake in hard labor for the glory of God. The authors conceded that living in an urban, industrialized blue-collar environment leads to alienation from middle-class norms, whereas life in a rural, non-industrial community or other setting does not. As an outgrowth of their theses, we find that for rural workers the more satisfying jobs would demand greater personal involvement, whereas city workers are more likely to be satisfied when their jobs are less personally involving. Blood and Hulin stated that there is a spectrum ranging from integration with middle-class norms to alienation from such norms. At the integrated end of this spectrum are individuals who desire personal involvement with their jobs. The job is expected to play a more important central role to the individual at this end of the spectrum, whereas workers at the other end experience only an instrumental involvement. Increased responsibility, autonomy, etc. are not unfulfilled needs; these people have no such needs.

At this point in the literature review, individual difference variables will be broken down into "personal/demographic" and "personal/psychological" variables. Such a distinction was made by Saal (1978) who noted that qualitative differences appear to exist between these two types of personal variables.

### Personal/Demographic Variables

A variety of demographic variables have been explored in terms of possible relationship to JI. The most consistently significant demographic variable, age (discussed in Rabinowitz & Hall, 1977), was not a factor in this study since all of the subjects are approximately the same age.

Background variables which were explored in this study included SES, participation in high school activities, and high school grades. The reasons for selection of these variables are discussed in the following section of the literature review.

SES.--As noted in the earlier theoretical discussion, the impact of one's parents may influence the later development of job attitudes such as JI. Directly related to this was a cross-sectional study performed by Ruh, White, and Wood (1975) which presented some supporting evidence in this regard. They explored the interrelationships among JI and a variety of personal background variables for a sample of rank and file workers and managers in several midwestern manufacturing firms. The background factors included items related to education level of both parents, father's occupation, geographical background, and religious habits. As reported by the authors, a multiple regression of the fifteen background factors with JI yielded an R of .32

( $N=1328$ ,  $p<.0005$ ). Thus, it does appear that factors related to SES may bear some influence on an individual's JI.

Other background variables.--Possibly an individual's past behavior will be predictive of his/her future JI. Variables such as high school grades and participation in high school activities may prove to be useful indices of later JI. Research evidence strongly supports the relationship of JI to participation (Siegel & Ruh, 1973; White & Ruh, 1973) and thus it may be a useful predictor of JI.

While performance has not proven to be correlated with JI in past studies (Rabinowitz & Hall, 1977), an earlier index of performance (i.e., high school grades) may prove to be predictive of the individual's JI. Indeed, some evidence does exist (Hall & Foster, 1977) to suggest that JI is the result of earlier performance. As such, earlier good performance (i.e., high grades) may be a strong force in the development of positive work attitudes such as JI.

#### Personal/Psychological Variables

In order to trace the development of the job involved person, individual difference and joint or additive effects theorists suggest the exploration of psychological variables related to the personality and needs of the individual. Representative of these personal/

psychological variables are locus of control, higher order need strength, and personal orientation.

Locus of control.--The relationship of Rotter's (1966) Internal-External Locus of Control Scale to JI has been explored in a few studies. Evans (cited in Hall & Mansfield, 1971) found JI to be significantly related to internal control on Rotter's scale. Runyon (1973) investigated the interaction between management style and locus of control on the JI of 100 hourly employees of a major multi-plant chemical company. Runyon found that the JI of internals ("individuals who perceive a reinforcement as being contingent upon their own actions") was significantly higher than that of externals ("individuals who perceive a reinforcement as being contingent upon outside forces") regardless of management style. Runyon concluded that the findings suggested that JI was largely a function of personality and should be considered a relatively stable personal characteristic.

Not all studies report positive findings with respect to locus of control, however. Rabinowitz, Hall, and Goodale (1977) found no relationship between locus of control and JI for a sample of 332 Canadian civil service workers.

Higher order need strength.--Within the context of the JI literature, higher order need strength (i.e., the

importance to the individual of satisfying a particular esteem or growth desire; Maslow, 1970) has been examined. Maurer found that for a sample of middle managers in 18 manufacturing firms, work role involvement was positively related to the importance, desired amount, and perceived existence of opportunities for satisfaction of esteem, autonomy, and self-actualization needs. Similarly, Rabinowitz (1975) found a positive relationship between higher order need strength and JI in a sample of Canadian public employees. Multiple regression results in this study indicated that need strength was one of the strongest predictors of JI of the variables in the study.

The present study expands this definition of higher order need strength to include social factors dealing with interpersonal esteem consistent with some of the theoretical notions of Alderfer (1972). In comparing his theory to Maslow's (1970), Alderfer noted that some of the items in his relatedness need category could be considered parallel to Maslow's "esteem" (or higher order) category. Also, various social and interpersonal factors have been shown to relate to JI. A number of studies touched upon correlates of JI such as team involvement (Hearn, cited in Lodahl & Kejner, 1965; Lodahl, unpublished study, cited in Lodahl, 1964), number of men working nearby (Lodahl, 1964), number of people contacted per day on the job (Lodahl & Kejner, 1965), and interdependence of the job, that is, the

necessity for working closely with others (Lodahl & Kejner, 1975). Thus more justification for including and exploring relatedness-type items within this category may be that those who exhibited greater desires for this need were the ones for whom social factors related to JI.

Personal orientation.--Earlier, the work of Holland (1973) was discussed in relation to its theoretical potential for discussing the development of JI. Holland's measure of personal orientation has yet to be empirically explored in relation to JI but it may prove to be a valuable predictor of JI. Rabinowitz and Hall (1977) discussed the potential use of such personality measures:

Consistent with the concept of involvement as some measure of the importance of work in a person's total identity, one could theorize that the more crystallized a person's identity is, the more involvement (of any kind) would be possible. Therefore, some measure of a person's identity . . . would be a potentially useful personal correlate of involvement (p. 285).

The Holland theory interprets a person's scores on a vocational interest inventory (i.e., a person's choice of vocation) as an expression of personality. As such, Holland regards interest inventories as personality inventories. The rationale for the development of the Holland inventory was expressed as follows:

The choice of an occupation is an expressive act which reflects the person's motivation, knowledge, personality, and ability. Occupations represent a way of life, an environment rather than a set of isolated work functions or skills. To work as a carpenter means not only to use tools but also to



have a certain status, community role, and a special pattern of living. In this sense, the choice of an occupational title represents several kinds of information; the S's motivation, his knowledge of the occupation in question, his insight and understanding of himself, and his abilities. In short, item responses may be thought of as limited but useful expressive or projective protocols (Holland, 1965, p. 2).

### Hypotheses and Summary

The model dictated by this theory would explore the pre-job influences of variables on later JI. As such, demographic and personality measures would be the key measures to be discussed. Advocates of this model would predict that certain values and socialization processes of the individual's upbringing would enable us to predict the person's involvement level on any job.

Variables in the present study which may be predictive of JI, as seen by the individual difference theorist included SES, high school grades, participation in high school activities, personal orientation, locus of control, and higher order need strength.

It would be hypothesized that individuals with 1) more strongly differentiated personalities (a la Holland), 2) internal locus of control, and 3) strong higher order need strength would be more job involved. Further, it would be expected that those individuals with 1) higher SES, 2) better high school grades and 3) greater overall participation in high school activities, would be more job involved.

The individual difference theorist would claim that this group of variables would account for the bulk of the variance in JI. This provides a further link with some of the more recent research (e.g., Schuler, 1975; Rabinowitz, Hall, & Goodale, 1977).

#### JI as a Function of the Situation

Vroom (1962) has suggested that job factors can influence the degree to which an employee is involved in his job. A person becomes ego-involved in his work performance to the extent that performance is perceived to be relevant to certain aptitudes, abilities, or other attributes that are central to his self-conception. It therefore becomes necessary to take into consideration not only the individual but also the organizational constraints inhibiting this relevancy. Thus we see, from Vroom's theorizing, the possibility that situational factors might influence an individual's JI level.

Participative management theorists (Argyris, 1964, and McGregor, 1960) place a minimal emphasis on JI as a personal characteristic, and stress involvement as a response to organizational conditions. They view the organization as blocking the gratification of ego and growth needs, a result that leads to the decline or absence of individual involvement on the job. Specifically, McGregor placed responsibility on the organization for the behavior of its employees, stating that how people behave is in large

part dependent on the assumptions management makes about them. Management draws from one of two sets of assumptions, Theory X or Theory Y. Theory X assumptions hold that people have an inherent dislike for work and must be forced to perform. Additionally, man avoids responsibility, seeking only security. Theory Y, on the other hand, assumes that work is natural for people, that they will exercise self-control without the threat of force. Responsibility is sought rather than avoided. Finally, Theory Y suggests that intellectual potential is only partially expended given the present state of organizational life. McGregor's thesis is that the predominance of Theory X assumptions has caused discontentment of the work force. The more management applies Theory Y assumptions, the more it can expect improved worker involvement and performance.

As previously indicated, Argyris (1964) also placed the burden on the organization. He argued that although it is normal for individuals, as they mature, to develop desires for independence, more complex behavior, deeper interests, awareness of self, etc., the organization does not recognize this development. In fact, according to Argyris, the organization retards growth by applying controls, demanding passivity, requiring only a few shallow abilities, etc. Thus, if an individual is to meet the demands of an organization, he must, in effect, consent to regress rather than mature. As a result, the individual

will become "psychologically" ill unless he finds some way of adapting to conditions. This adaption sometimes takes a form that is detrimental to organizational goals, such as becoming less involved and lowering work standards. Changes in organizations should therefore center around designing work that will allow the individual to mature normally.

Bass (1965) concluded his discussion of JI by echoing the feeling that six conditions lead to a strengthening of the variable: (a) the opportunity to make more of the job decisions; (b) the feeling that one is making an important contribution to company success; (c) success; (d) achievement; (e) self-determination; (f) freedom to set one's own work pace.

Blauner (1964), in discussing work alienation, related many points to JI. Blauner hypothesized that involvement in work may come from personal control, from association with others, and from a sense of purpose. A man who is in control of his immediate work process--regulating the pace, the quantity of output, the quality of the product, choosing tools or work techniques--must, according to Blauner, be relatively immersed in the activity of work. The social aspects and meaning of the job were also touched upon by Blauner:

For most employees, when work is carried out by close-knit work groups, especially work teams, it will be more intrinsically involving and rewarding. And involvement and self-fulfillment is heightened

with the purpose of the job can be clearly connected with the final end product or the overall goals and organization of the enterprise (p. 28).

At this time, this section is subdivided into situational factors and outcomes. From a time-based perspective, one would expect the individual to be on the job for a while before forming reactions (e.g., expressions of job satisfaction). This distinction will again be brought out in discussing the developmental model of JI. Researchers have previously explored some of the variables (e.g., job characteristics) to be discussed here, while others will be suggested for exploration in order to develop a more complete picture of the effects of situational variables on JI.

### Situational Factors

Job characteristics.--The individual's perceptions of job characteristics in relation to JI have been explored on a few occasions with generally positive results occurring. Based on the work of Lawler (1969), Hackman and Lawler (1971), and Hackman and Oldham (1975), the "core" job dimensions consist of:

1. Autonomy--The extent to which the worker is allowed to determine the scheduling and the nature of the work which s/he does.
2. Feedback--The extent to which knowledge of what is accomplished is provided to the worker.
3. Variety --The extent to which the task requires the use of a number of different skills by the employee.
4. Task Identity --The extent to which the individual is involved in a significant part of the

task. S/he does a "sufficiently whole piece of work" that s/he can identify the outcome as a product of his/her efforts.

5. Task Significance --The degree to which the job has a substantial impact on the lives or work of other people--whether in the immediate organization or in the external environment.

Studies (Hackman & Lawler, 1971; Brief & Aldag, 1975; Rabinowitz, Hall & Goodale, 1977) have demonstrated that the perceived levels of these characteristics have been significantly related to JI for samples of telephone company, corrections, and civil service employees respectively. Hackman and Lawler (1971) found JI to be significantly correlated ( $p \leq .05$ ) with variety ( $r = .24$ ), autonomy ( $r = .22$ ), task identity ( $r = .12$ ), and feedback ( $r = .24$ ). Brief and Aldag (1975), in replicating the above study, found somewhat stronger correlations between JI and the core job characteristics: variety ( $r = .35$ ), autonomy ( $r = .34$ ), task identity ( $r = .20$ ), feedback ( $r = .40$ ); all at the  $p < .05$  level. Rabinowitz, Hall, and Goodale (1977) found job scope (an unweighted linear sum of Hackman & Lawler's job characteristics) to be correlated with JI ( $r = .33$ ,  $p < .001$ ). Thus it appears that the variable may be useful in a predictive model of JI.

Dealing with others.--A subscale of Hackman and Oldham's (1975) Job Diagnostic Survey concerns itself with the interpersonal dimensions which the job allows. For

much the same reasons as previously discussed in the "higher order need strength" section, this variable (termed "dealing with others") should be explored in relation to JI. It has not been considered one of the "core dimensions" in the research literature and thus is being considered apart from them in this study.

Additional situational factors.--The measurement of job characteristics has emerged as one of the more frequently looked at variables in relation to job attitudes. It should be noted, however, that there has been debate in the literature as to the usefulness of measuring subjective perceptions of job characteristics (e.g., Jenkins, Nadler, Lawler, & Cammann, 1975). Accordingly, the exploration of a more "objective" situational variable will be undertaken.

McKelvey and Sekaran (1977) suggest that, in a model of JI, one should consider career-based variables such as job-related training. It appears that if the individual is taking any job-related training courses, it would be a possible behavioral index of one's desire to be job involved.

The reactions of the individual (i.e., outcomes) complete the picture in regard to situational factors.

### Outcomes

Job satisfaction.--Research has generally demonstrated positive relationships between job satisfaction and

JI. Examples of this relationship may be found in samples of engineers (Lodahl & Kejner, 1975), male civil service workers (Weissenberg & Gruenfeld, 1968), working wives (Gannon & Henrickson, 1973), female first-level public utility supervisors (Steers, 1975), and manufacturing firm employees (Schuler, 1975). To be noted here is that past research (Lawler & Hall, 1971; Cummings & Bigelow, 1976) has demonstrated the conceptual distinctness of these two variables. As to be noted is the point that, generally speaking, satisfaction with the more intrinsically-related aspects of the job (e.g., the work itself) has proven to be a stronger correlate of JI than the more extrinsically-related job satisfaction items (e.g., pay) (Rabinowitz & Hall, 1977).

Reward expectancy.--If an individual perceives a connection between performance and desired outcomes, the person will, in all likelihood, have more favorable job attitudes. Chung (1977) discussed this point in reference to reinforcement theory. As such, we might expect higher JI levels on the part of those individuals who believe that positive rewards will be forthcoming from their job. It is distinctly possible that specific job conditions would lead to certain kinds of reward expectancies. For example, individuals in high job scope positions may believe that higher order-type rewards would result from



their job. Also, individuals who are in jobs which enable them to interact with others may expect higher order rewards to result on the job. Given these situations, one would expect JI to follow.

### Hypotheses and Summary

The model dictated by this theory explores situationally-based factors in relation to JI. The predominant theme of this theory is that one may predict an individual's JI level by knowing the individual's reactions to on-the-job influences. As such, any demographic and personality factors (pre-work inputs) are irrelevant.

Variables in this present study which may be predictive of JI, as seen by the situational theorist include job characteristics (i.e., job scope), the amount of dealing with others, whether the individual is participating in any job training courses, job satisfaction, and reward expectancy.

It would be hypothesized that 1) high job scope, 2) high job satisfaction, and 3) more positive reward expectancy would be related to JI. The effects of the other situational variables (i.e., training courses, amount of dealing with others) in relation to JI will be explored.

The situational theorist would claim that this group of variables would account for the bulk of the variance in JI.

### JI as an Individual-Situation Interaction

JI as an individual-situation combination appears to be the theory which has received the most recent theoretical support. This theoretical perspective which reflects the idea that JI is a result of the joint effects of personal and situational measures, is represented by Wanous (1974) who discussed the relationship between an individual's socialization process and characteristics of a job. The socialization environment plays a role as one of the early determinants of an individual's work needs. According to Wanous, in the context of white collar environments, an individual may be more likely to adopt a set of middle-class work values. The results of such an upbringing, as Wanous notes, could cause an individual to develop a general value orientation toward work that emphasizes the importance of work to one's total self-esteem and reinforces the belief that work can hold intrinsic satisfaction. The consequence of such values, Wanous speculated, is that an individual (when asked) is likely to state his/her own particular desires for job characteristics such as autonomy, variety, challenge, task identity, and feedback. It is believed by Wanous that it is likely that an involvement-prone individual will become involved when holding a job with such characteristics. It would also seem to hold that if an individual's job characteristic desires are not met, there would be an unfavorable (low involvement) reaction.

Presthuis (1962) also discussed the interaction of personality with the situation a person is involved in. It is through the process of socialization that social values and institutions mold individual personality and behavior. He noted, "Society, in effect provides a web of values and expectations that determines the individual's character, his ethical beliefs, and his ideas about progress, success, and failure" (p. 7). Additionally, Presthuis viewed the application of Sullivan's (1953) interpersonal theory as a way of explaining the organizational behavior of an individual. Presthuis believed that in Sullivan's view,

interpersonal relations are largely a function of individual needs to reduce anxiety. Thus the objective situation is only one part of the field; individual perception and personality always play their part in determining how a given situation will be handled. But perception is the product of a 'self-system' reflecting the individual's experience from childhood onward (p. 119).

Interpersonal theory thus emphasizes the interplay of the social situation and personality. More specifically, the behavior (type of accommodation) of individuals within organizations is a result of the interaction between the (bureaucratic) situation and personality. JI would be one type of expected response if the pattern of accommodation developed through socialization and the situation match. Accordingly, Presthuis' theory is grouped in this section.

Another theory reflecting this third viewpoint is that of Holland (1973). He speaks of the development of

personality types and their later relationship in situational factors such as job setting and behavioral and attitudinal outcomes. Specifically, Holland hypothesizes that a variety of background factors influence the individual's personality type. These factors, which include the influence of parents, peers, sex, socioeconomic status (SES), physical environment, activities, and interests, generally reflect the socialization process. Once the personality type is formed, Holland assumes that the individuals will seek out environments that will let them "exercise their skills and abilities, express their attitudes and values, and take on agreeable problems and roles (p. 4). A further assumption is that the individual's behavior is determined by an interaction between his/her personality and the characteristics of his/her environment. Thus, if the individual's personality and environmental situation are "congruent" (e.g., person-job match), a variety of positive outcomes such as achievement, vocational stability, job satisfaction, and perhaps greater JI could result. The latter remains to be tested.

### Research Evidence

A few studies employing multivariate strategies have examined the ability of various types of variables to predict JI.

Schuler (1975), in a sample of manufacturing company employees, used stepwise multiple regression analysis to

determine whether JI variance was better explained by a combination of "individual/socialization" variables (age, ability to leave the organization, relevant education, and perceived participation in decision-making) or a combination of "organizational/environmental" variables (participatory leadership, role ambiguity, and task repetitiveness). Results indicated that both combinations accounted for about the same amount of variance in JI ( $R^2=.32$  for individual variables,  $R^2=.34$  for organizational variables). It should be noted that when both sets of predictors were combined and regressed on JI, an even greater share of the variance was explained ( $R^2=.45$ ).

Rabinowitz, Hall, and Goodale (1977) utilized similar methodological procedures to examine the relative importance of job scope and individual difference variables in explaining JI for a sample of Canadian civil service workers. Their results indicated that three individual difference variables (growth need strength, length of service, Protestant ethic) and the situational measure (job scope) all had approximately equal beta weights in the prediction equation. These variables accounted for 25 percent of the JI variance. This study also found no interaction effects in predicting JI between job scope and any of the individual difference measures. This led the authors to conclude that the effects of individual difference and situational variables in the prediction of JI appear to be relatively independent and additive.

Finally, Saal (1978) examined the predictability of variables related to JI for a sample of metal-product manufacturing company employees. He performed three stepwise multiple regression analyses on measures corresponding to categories of "personal/demographic", "personal/psychological", and "situational/job characteristics" variables. Among the personal/demographic variables, age, sex, and community-where-raised satisfied the inclusion criterion ( $F \geq 1.0$ ), yielding  $R^2 = .15$ . Four of the personal/psychological variables (achievement motivation, Mirels and Garrett's (1971) Protestant Work Ethic score, Blood's (1969) "pro-Protestant Ethic" score, and Blood's "non-Protestant Ethic" score) yielded an  $R^2 = .36$ . Among the situational/job characteristics, feedback, autonomy, friendship opportunities, and necessity of dealing with others entered the equation, yielding  $R^2 = .27$ . These results suggest that there is a significant situational component. To be noted also is Saal's breakdown of the individual difference category into demographic and psychological components. This distinction may prove to be useful in the derivation of a developmental model of JI.

### Hypotheses and Summary

A model which tries to combine the "best of both worlds" would be proposed by these theorists. Basically, these theorists predict that both pre-work inputs (individual

difference factors) and work experiences and outcomes (situational factors) would predict JI.

Such a model is supported in the theory of Holland (1973) who spoke of the relationship of both personality and environmentally-based variables in predicting reactions to the job. This third theory of additive effects can be tested utilizing those variables described earlier in this section in order to see whether this, more inclusive, model does add any predictability above and beyond the earlier-discussed models. In this theory, for example, it would be hypothesized that job scope and higher order need strength would both be predictors of JI.

### Conclusion

One of the objectives of the present research is to readdress the situational vs. individual differences question in order to link past with present research and move toward a model of JI development. The hypotheses discussed within this section will be tested out in a manner similar to the few multivariate studies which have been reported in this section.

This section concludes with a presentation of an hypothesized developmental model of JI and discussion in support of various components of the model.

### The Hypothesized Developmental Model of JI

The JI research to date has not explored the initial development of JI in new workers. An aim of this study is to add to the research literature by presenting a theory-based model dealing with the development of JI over time. The only other study to date which has presented a developmental model of JI was performed by McKelvey and Sekaran (1977). In a cross-sectional study, they examined the work responses of scientists and engineers in aero-space organizations and, based on multiple regression analyses, proposed a model of factors which might be associated with JI. Their model started off with cultural and personality factors leading to a variety of career-based (such as job-related training courses) and situational factors which lead to JI. The McKelvey and Sekaran model is seen as an added contribution toward the development of the current proposed mode.

The hypothesized model integrates components of the theoretical notions and empirical findings of past research into a framework which looks at pre-work inputs (personal variables), work experiences and outcomes (situational variables) as steps in a model predicting JI. Other researchers have examined some of the variables in direct relation to JI (as discussed in the prior section re: multiple regression studies) but they have not as yet explored an overall model of JI.



In this portion of the paper, the specific variables in the proposed model will be discussed in terms of their hypothesized relationships to each other. Rationale for the hypothesized relationships is also presented. The model is developmental in nature in that it proposes an order in which the variables develop and lead to JI. The general model is:

```

personal/demographic→personal/psychological→situational→
      time 1                time 1                time 2

outcomes→JI
time 2    time 3

```

The above model includes the general titles of the classes of variables and the time at which the variables were analyzed.

#### Personal/Demographic-Personal/ Psychological Linkage

The first link of the model dictates that personal/demographic variables influence the development of personality or personal/psychological variables. This causal link is inherent in Holland's (1973) theory in which personality orientation is discussed as having resulted from the interaction between hereditary make-up and environmental influences. These latter influences include the impact of parents and other significant adults, peers, sex, social class, activities, competencies, and the physical environment. Holland's theory assumes that these types of

variables lead to personality formation. Evaluation of the current model will provide a test of some of these assumptions.

SES linkage to Personal/psychological variables.--

Specifically, social class or SES appears to be an important measure in terms of its influence on personality development and pre-work attitudes. Studies performed by Kohn (1969), Saleh and Singh (1973), and McCall and Lawler (1976) have presented evidence to indicate that individuals coming from lower level SES backgrounds place more emphasis on the extrinsic aspects of a job while those from higher level SES families regard intrinsic aspects of the job as more important. Since the individuals grew up in households exhibiting these socioeconomic traits, it would be logical to assume that need importance developed via the influence of situation tied to SES. Accordingly, it is hypothesized that SES leads to need strength.

Those in higher SES groups should also perceive themselves as being more in control of forces that affect their lives (Kohn, 1969). It would be expected that higher SES individuals would develop more internal feelings (re: locus of control).

Finally, it appears that those individuals with higher SES backgrounds would develop more crystallized personal orientations (Holland, 1973). That is, having

been brought up in households with more emphasis on middle-class type values, it would be expected that those in the higher SES families would develop more predictable, differentiated personality types.

Participation in high school activities linkage to Personal/psychological variables.--Within the socialization process, it is possible that earlier activity level would contribute to the formation of pre-work attitudes and personality trait development. In the case of this particular sample, active participants in a variety of scholastic and community functions during high school would be expected to develop specific traits and interests. It is postulated that the more active participants would develop stronger higher order need strength since many of these activities encourage interaction with groups of people, as well as personal growth and development within the individuals. Leadership and organizer roles accorded the more active participants should also help them develop feelings that they are more in control of their own fate (internal locus of control). Finally, active participation should help the individual develop interests and further solidify or crystallize his/her developing personality.

High school grades linkage to Personal/psychological variables.--An early index of individual performance and

achievement would be high school grades. Early achievement such as this would probably reflect itself in the development of stronger higher order need strength.

One might also expect a relationship to exist between this early performance index and locus of control such that higher grades would lead to stronger feelings of having control of one's fate. Those with higher grades would develop more internal control feelings.

Finally, the achievement of higher grades would contribute to more differentiated personal orientation since they should be an overall measure of ability to perform well in certain tasks which would serve as a reinforcement to the individual and thus contribute to a more crystallized personality.

#### Personal/Psychological-Situational linkage

It is generally hypothesized that personal/psychological variables play a major role in determining perceptions of the situation. Accordingly, a time lag is proposed here with personal/psychological variables ideally measured prior to entry into the work force and situational variables assessed after the individual has been a full time worker for a few months. If Holland's (1973) theoretical notions hold, it would seem that individuals possessing certain personality traits would gravitate toward situations

which would be conducive to their basic nature. Specific hypothesized relationships will now be explored.

Higher order need strength linkage to Situational variables.--Individuals with strong higher order needs, in their quest to meet these needs, should position themselves in situations which would be more likely to help them fulfill the needs. As such, jobs possessing enriching characteristics (i.e., high job scope) appear to be more likely environments in which to find individuals with strong higher order needs. The amount of dealing with others on the job should also be taken into account. Individuals are expected to maximize their interactions with others in the job setting in order to increase potential for esteem-building activities.

In addition strong higher order need strength individuals would be more likely to participate in job-related training courses. Gaining the job-related knowledge offered by such courses adds to personal growth as well as offering the person the increased knowledge and skill development which would contribute to satisfying higher order needs.

Locus of control linkage to Situational variables.--Individuals who believe themselves to be in control of their own fate (i.e., internals) are predicted to enter situations which appear to them to offer the control aspects conducive

to their personality. These conditions would be high job scope, and participation in job-related training courses. The more enriching jobs present greater opportunity for the person to control the situation by giving him/her, for example, a job high in autonomy. Also, internals are expected to participate in job-related training courses since the courses would enhance the person's ability to control his/her own situation.

Personal orientation linkage to Situational variables.--The more crystallized or differentiated the personal orientation is, the more likely it is that the person would strive for situations congruent with his/her personality. Assuming that this is the case, this individual would probably go after job-related opportunities such as training courses so as to further solidify the personality-job match.

Situational variables - Outcomes linkage

Logically speaking, reactions to the job should occur after the person has been in the situation and had time to assess it. Thus, in order of occurrence, outcomes are expected to follow after the individual evaluates the situation. Specific theoretical and empirical support for links in the proposed model follow.

Job scope linkage to Outcomes.--A study which explored this causality issue (although not directly related to JI) was that of Sims (1977) who investigated longitudinal relationships between perceived job characteristics and employee satisfaction and expectancies. Causal analysis did indicate that job characteristics caused job satisfaction and expectancy II (performance-reward expectancy) for those employees who perceived "high change" in job characteristics after a six month time lag.

Given the earlier hypothesized links (especially higher order need strength-job scope) of the model, it is no surprise that individuals who perceive their jobs as stimulating (i.e., high job scope) would almost immediately express satisfaction with the job as well as expect higher order rewards to result from it.

Dealing with others linkage to Outcomes.--A path from perceived amount of dealing with others to reward expectancy is predicted. The more opportunity there is for a worker to interact on the job with others, the more likely should be the expectancy of higher order types of rewards. If prior links hold up, a path from dealing with others to reward expectancy should exist. Similarly, one would expect a path from dealing with others to job satisfaction. In the person-job matching process, if the person's main needs are being met by the job, it seems reasonable to assume that

a more global feeling of satisfaction will result. The relationships predicted here are the following.

Job-related training courses linkage to Outcomes.--

A path from training courses to reward expectancy is predicted since such courses should enhance the ability to meet higher order needs, thus higher order rewards would be an expected outcome.

Outcomes - JI linkage

The most directly hypothesized link to JI is predicted to be the outcome measures. Feelings of JI are expected to develop gradually, over time; thus a time lag (time 2 for outcomes, time 3 for JI) is used in the proposed model. As a result of feeling satisfied with the job, and also based on the awareness that various need-related rewards have resulted from the situation, the individual's JI-proneness is developed and realized. As such, paths linking reward expectancy to JI and job satisfaction to JI are hypothesized.

Summary of Hypothesized Model of JI

This section has presented a series of hypothesized paths leading to JI. It has done so in a way which explores specific variables within general classes of factors. Further, it was posited that a time lag between collection of sets of variables would be crucial. A summary diagram (Figure 1) of all hypothesized relationships illustrates these statements.



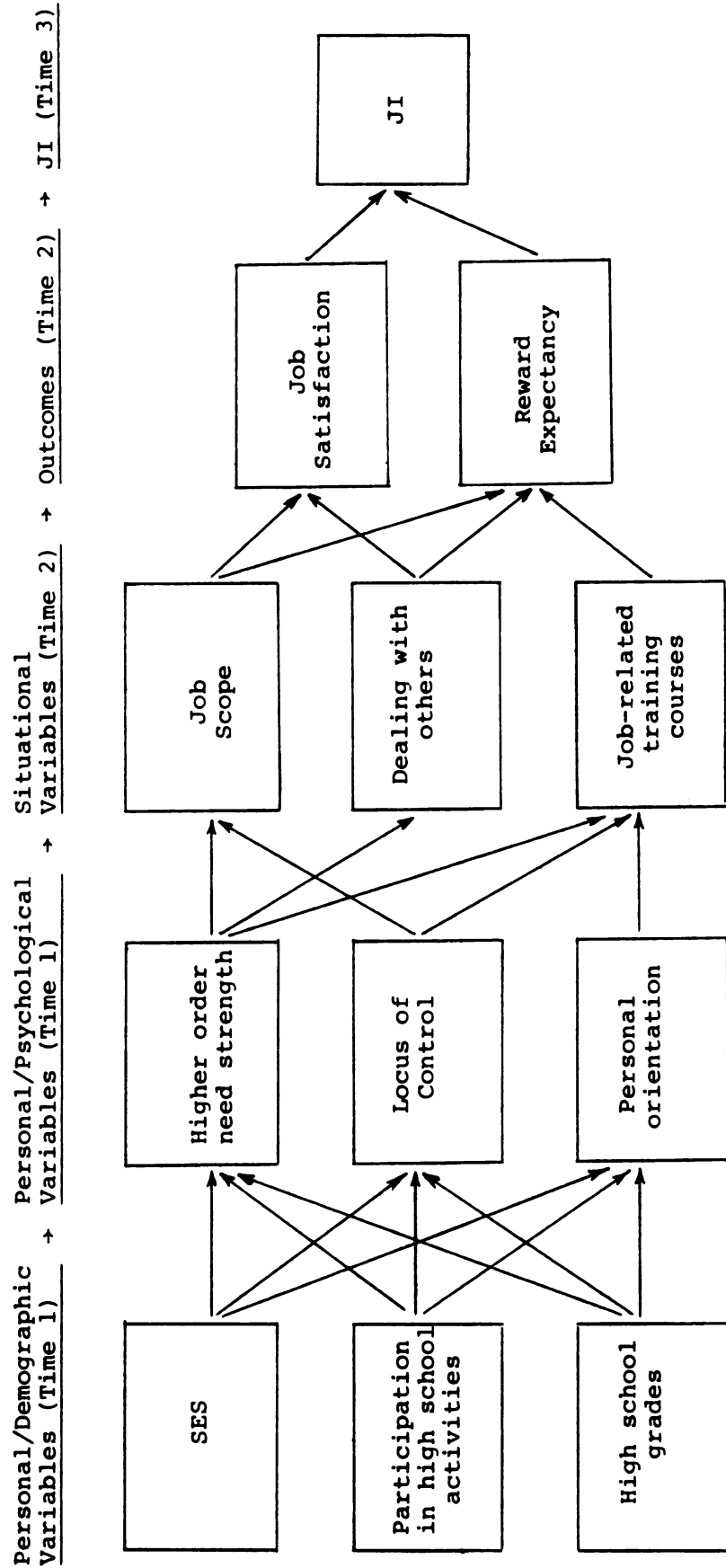


Figure 1.--Hypothesized Model of the Development of JI

## CHAPTER II

### METHOD

#### Subjects

Subjects for this study came from a larger, Michigan Department of Labor study being carried out by Schmitt, White, Coyle, Rauschenberger, and Shumway (1978). The sample for this particular study consisted of 161 high school graduates of June 1976 who were full-time employees (as opposed to those who went on to college or technical school) as of the time of the third questionnaire period (April 1978). Approximately 68 percent (N=109) of this sample was female. This is somewhat different from the general population ratio of females in the work setting, which is 40.5 percent, based on 1977 Bureau of Labor Statistics figures (Renwick & Lawler, 1978).

#### Procedure

Subjects were mailed three questionnaires approximately 10 months apart. At the first point in time subjects had just graduated from high school and were either newly employed or were still looking for jobs. All high school graduates in 11 schools in and surrounding a medium sized

mid-western city were contacted with the original questionnaire package. The return rate for the overall sample was 30 percent. Out of that group, approximately 75 percent responded to the second questionnaire. Similarly, approximately 75 percent of the time 2 respondents returned the third questionnaire. Subjects were paid three dollars to complete each questionnaire. This payment was used to increase the probability that those contacted would reply. A comparison of return rates at time 1 between two of the schools, one where payment was offered and one where no payment was offered, revealed that the payment served its purpose (30% vs 5% return rate).

#### Operationalization of Variables

With the exception of certain one item variables specified in this section, items from all scales utilized in this study are presented in the Appendix.

##### Job Involvement

The short form (six items) of the Lodahl and Kejner (1965) scale was used. Reliability of this measure or variations of it have ranged from .72 to .89 with Lodahl and Kejner estimating the corrected odd-even reliability coefficient to be .73. The items reflect the definition of JI presented earlier in the text. Items were scored on a 5 point scale ranging from "Strongly agree" = 1 to "Strongly disagree" = 5. They were reflected in the direction of

increasing involvement. Responses to these items were collected at the third time period.

#### Personal/Demographic Variables

Items reflecting background characteristics of individuals were collected at the first time period. The factors included high school grades ("In high school, you received mostly grades of": 1=A, 2=B, 3=C, 4=D), participation in high school activities-a sum score of overall participation level, and SES which was measured by translating each student's father's occupation to the Duncan scale (Reiss, Duncan, Hatt, & North, 1961).

#### Personal/Psychological Variables (collected at the first time period)

Locus of control.--This eleven item scale (1="strongly agree" to 4="strongly disagree") was taken from a study performed by Andrisani and Nestel (1976). The items were scaled in terms of increasing internality. They represent the more adult and work-oriented items from the Rotter (1966) scale placed in a Likert-type format. Reliability estimates for this scale, as reported by Andrisani and Nestel (1976) were approximately .75.

Higher order need strength.--Five items reflecting the importance of growth needs and four items reflecting the importance of relatedness needs to the individual were taken from Alderfer's (1972) research measure. These items were

combined into one scale upon calculation of a rather high correlation ( $r=.73$ , corrected for attenuation) in order to minimize potential multicollinearity. Importance ratings were made on a 4 point scale extending from "Very important"=1 to "Of no importance"=4.

Personal orientation.--The most recent revision of the Strong Vocational Interest Blank (1974) includes scores and interpretations based on Holland's theory of vocational choice (1973). Six occupational scales (realistic, investigative, artistic, social, enterprising, conventional) as presented by Campbell and Holland (1972) were utilized in the present study. Coefficient alpha reliabilities have typically been approximately .90 for each of these scales (Campbell & Holland, 1972).

In order to get at the issue of "differentiation" or crystallization of personality types, various methods have been used. One such method (Nafziger, Holland, & Gottfredson, 1973) involves taking the highest summary scale score minus the lowest summary scale score. The greater the difference, the more a person's profile would be differentiated. The present study utilizes this operationalization of the differentiated personality.

Situational Variables (collected at the second time period)

Job scope.--Perceptions of characteristics of the job were obtained through the use of the Job Diagnostic

Survey (JDS; Hackman & Oldham, 1974). As reported by Hackman and Oldham, internal consistency reliabilities for each scale (computed by obtaining the median inter-item correlation for all scored items and each scale and then adjusting the median by Spearman-Brown procedures) ranged from .59 to .71 for the five core characteristics (task identity, skill variety, task significance, autonomy, feedback from the job). The items were scored on a 7 point scale ranging from "Very little" or "Very inaccurate"=1 to "Very much" or "Very accurate"=7.

For purposes of the present study, an overall, additive summary score was used. Pierce and Dunham (1976) have pointed out that "It's been almost universally found that an additive model best describes the relationship between JDS scores and measures of worker responses (p. 93)."

Dealing with others.--This was a three item subscale of the JDS (Hackman & Oldham, 1975) which explored the amount of dealing with other individuals present on the respondent's job. The items were scored on a 7 point scale ranging from "Very little" or "Very inaccurate"=1 to "Very much" or "Very accurate"=7. As reported by Hackman and Oldham (1975), the internal consistency reliability was .59.

Job-related training.--A single item question was added in order to learn more about job training as a situational measure. The question, "Are you taking any

job-related training courses?" (1="No," 2="Yes") measured that career-based variable.

Job satisfaction.--This variable was measured by the use of the 20 item short form of the Minnesota Satisfaction Questionnaire (Weiss, Davis, England, and Lofquist, 1967). General job satisfaction can be measured by summing the scores for all 20 items. It should be noted that certain subsets of item scores can be summed to obtain a measure of extrinsic satisfaction and a measure of intrinsic satisfaction, however, an earlier analysis of the data revealed the two subsets to be highly intercorrelated ( $r=.83$ ); thus the overall sum was used. Reliability data, as reported by Weiss et al., was .85.

Reward expectancy.--This measure was derived from Alderfer's (1972) scale which asked about the likelihood of a particular reward if a person were to continue the activity which they were presently engaged in. Five growth reward expectancies and four relatedness reward expectancies were presented on a 5 point scale ranging from 1="definitely will result" to 5="definitely will not result." These items were summed together in order to look at "higher order" reward expectancies. The logic behind utilizing a sum score here is similar to that discussed earlier relating to higher order need strength.

### Data Analysis

Basic means of data analysis and model testing was via stepwise multiple regression and path analysis. In stepwise regression, the variable that explains the greatest amount of variance in the dependent measure (JI) enters first; the variable that explains the greatest amount of variance in conjunction with the first enters second, etc. Thus, the variable that explains the greatest amount of variance unexplained by variables already in the equation enters the equation at each stage (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975).

For the present study, three prediction equations were tested. The first consisted of personal/demographic and personal/psychological variables. The list of measures included SES, participation in high school activities, high school grades, higher order need strength, locus of control, and personal orientation (specifically looking at amount of differentiation). The second equation consisted of situational measures and included job scope, amount of dealing with others, job training, job satisfaction, and reward expectancy. The final equation taking the additive effects perspective, employed all of the previously mentioned variables. In lieu of a cross-validation group, Darlington's (1968) shrinkage formula was applied where necessary to check on the stability of the regression equation. Such practice was suggested by Schmitt, Coyle, and Rauschenberger



(1977) when one has a sample where it is practically impossible to utilize a cross-validation group.

The model presented in Chapter I was tested using path analysis. Since the data were longitudinal in nature, stronger inferences of possible causality can be made than in using static data. The correlation matrix was analyzed by the LISREL program (Joreskog & van Thillo, 1972) which yielded a maximum likelihood path analytic solution for the parameters suggested in the model. The LISREL program gives an estimate of the specified parameters among the independent and dependent variables as well as between underlying and observed measures of variables and the uniqueness associated with each measured variable. The program also computes a reproduced correlation matrix based on the parameter estimates and a  $\chi^2$  test of the significance of the difference between the observed and reproduced correlation matrix (see Burt, 1973; Joreskog, 1967 for more details on this data analytic technique). The advantage of employing this technique is that it allows for an overall test of the adequacy of one's hypothesized model.

To be noted is that the procedure tests only the degree of fit or plausibility of a given model. Alternative models may fit the data as well or even better than the one(s) evaluated.

## CHAPTER III

### RESULTS

In Chapter III the results of hypotheses developed in Chapter I are reported. In the first portion of this section analyses related to the three theories of JI discussed earlier are reported. In the latter part of this section the path analytic results dealing with the proposed developmental model of JI are reported.

#### Reliability and Intercorrelations of Measures

The internal consistencies and intercorrelations of the measures employed in the present study are presented in Table 1. Most of the reliabilities are above .80, although one of the measures, participation in high school activities, was low ( $\alpha=.51$ ). Reliabilities for many of the measures are comparable to those reported in Chapter II (e.g., JI, locus of control, dealing with others), though correlations of the variables with JI are low. As will be observed, these low relationships exist throughout the analyses to follow. The fact that JI data were collected at a later point in time than the other variables in the

Table 1.--Intercorrelations and Reliabilities of Independent and Dependent Variables.<sup>a</sup>

Variables	1	2	3	4	5	6	7	8	9	10	11	12
Higher Order Need Strength (1)	(.80)											
Locus of Control (2)	.18	(.68)										
Personal Orientation (3)	.04	-.05	(b)									
Job Scope (4)	.07	.15	-.01	(.86)								
Dealing with Others (5)	.10	-.03	-.23	.20	(.65)							
Job Training (6)	-.14	-.11	.14	.10	.13	(c)						
Job Satisfaction (7)	.11	.13	-.01	.38	.08	.03	(.92)					
Reward Expectancy (8)	.04	.26	-.05	.45	.16	.07	.38	(.84)				
Job Involvement (9)	-.04	-.01	.12	.07	.04	.08	-.01	.10	(.80)			
SES (10)	-.08	-.12	-.03	-.06	.06	.22	-.04	-.13	.03	(c)		
Participation in High School Activities (11)	.05	-.04	-.01	.07	.18	.09	-.06	-.01	-.03	.04	(.51)	
High School Grades (12)	.09	-.06	-.02	-.11	-.01	-.08	-.03	-.02	-.01	.06	-.24	(c)

<sup>a</sup>Reliabilities are presented on the diagonal. N for all correlations was at least 79; a correlation greater than .22 was significant,  $p < .05$ .

<sup>b</sup>No reliability is presented for this measure since it was calculated as the difference between high and low interest scores.

<sup>c</sup>No reliabilities were available for these measures. Since they were all factual in nature it should be safe to assume they were close to 1.00.

study may account for some of the lower relationships. For example, the correlation of JI with job satisfaction in cross-sectional studies has been approximately .30 (Rabinowitz and Hall, 1977), while in the present study  $r=.01$ .

Intercorrelations among the predictors were also low, although some moderate ones existed. For example, job satisfaction correlated with reward expectancy ( $r=.45$ ,  $p<.05$ ) and job scope ( $r=.38$ ,  $p<.05$ ). These measures were collected on the same questionnaire (time period 2) which may account, in part, for the level of those relationships (i.e., potential method variance).

#### Predictors of JI

Three prediction equations were calculated corresponding to the three JI theories which have been discussed in the literature.

The individual difference theory was tested by entering SES, participation in high school activities, high school grades, higher order need strength, locus of control and personal orientation into the first equation. None of these variables were significantly related to JI ( $p<.05$ ). The  $R^2$  between JI and these variables was .013 thus suggesting that this theory was not supported.

The second equation contained variables testing the situational theory of JI. Variables entered into the equation, as noted in Chapter II, included job scope,

dealing with others, job training, job satisfaction, and reward expectancy. Once again, none of these variables were significant predictors of JI at the  $p \leq .05$  level. They did, however, account for slightly more ( $R^2 = .036$ ) of the variance in JI.

The final equation consisted of all of the previously mentioned variables and represented a test of the additive theory. In this case, a number of variables in combination with each other accounted for a somewhat larger portion of the JI variance than either of the first two equations. As will be noted in Table 2, a total of 7 variables were significant at the  $p \leq .05$  level. These variables, job training, personal orientation, reward expectancy, job satisfaction, dealing with others, job scope, and SES, accounted for 18.2 percent of the variance in JI. A question arises as to why variables which were not significant in either equation 1 or 2, were significant in this equation. Basically, what occurred was a change in sample size primarily due to the nature of the analysis. In utilizing the SPSS regression program, a listwise deletion option was utilized. As such, when respondent data were missing on any variable in the equation, that subject would be eliminated from the analysis. For the three equations, the sample sizes were 112 (individual differences theory equation), 115 (situational theory

Table 2.--Multiple Regression Summary Table

Step	Variable Entered	Overall F	Overall Significance	R <sup>2</sup>	Beta Weight
1	Job Training	6.58	.012	.079	.33
2	Personal Orientation	4.76	.011	.111	.16
3	Reward Expectancy	3.75	.014	.131	.19
4	Job Satisfaction	3.33	.015	.152	-.25
5	Dealing with Others	2.84	.021	.163	-.14
6	Job Scope	2.52	.029	.174	.15
7	SES	2.26	.039	.182	-.11
-----					
8	High School Grades	2.06	.052	.190	.07
9	Higher Order Need Strength	1.84	.077	.193	.07
10	Participation in High School Activities	1.65	.112	.195	-.04
11	Locus of Control	1.45	.160	.195	-.02

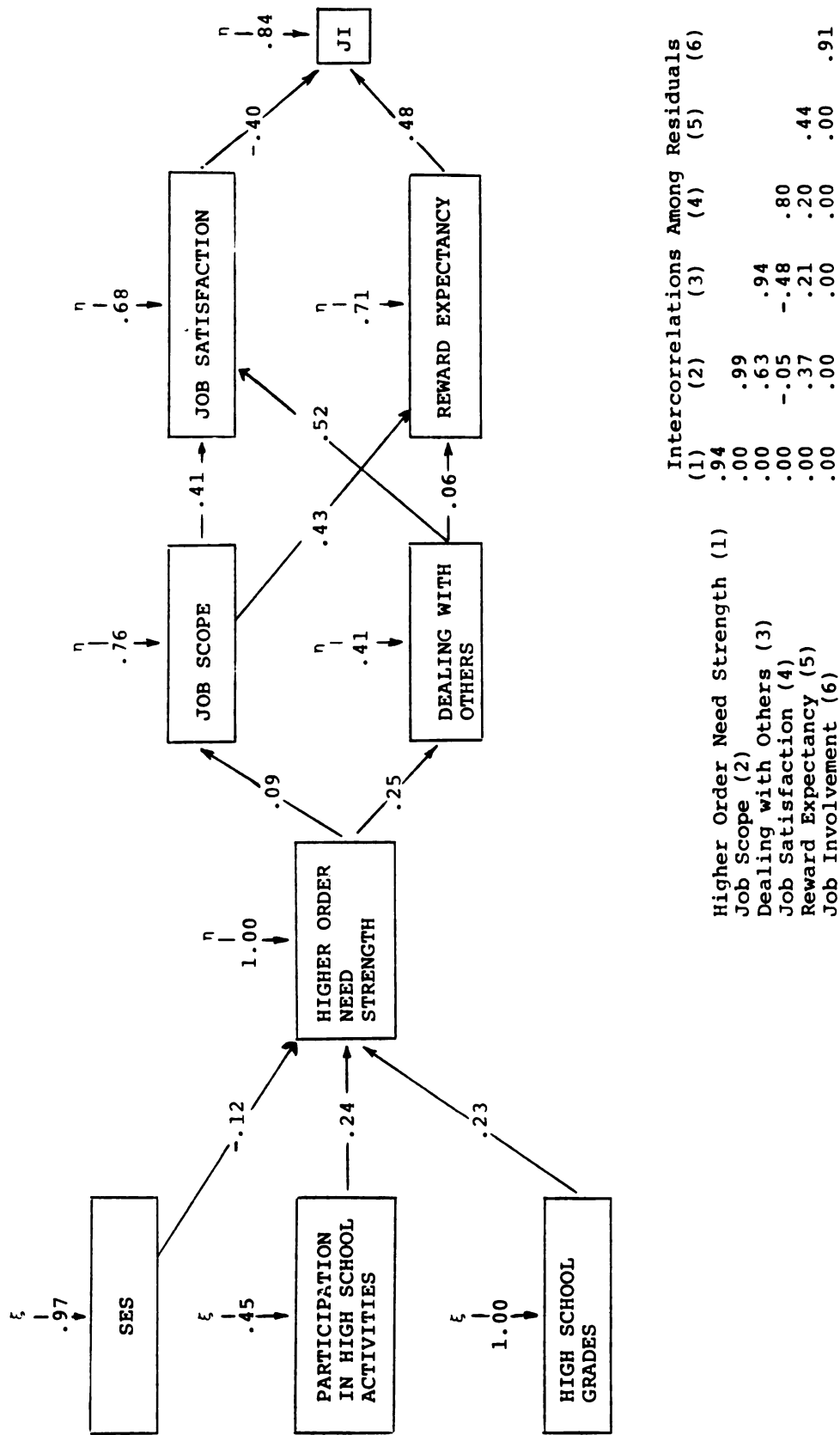
equation), and 79 (additive theory). A change in sample size could have certainly meant a change in sample characteristics and this may explain the phenomenon observed.

Because of the fairly low sample size for the third equation, it did not seem reasonable to attempt to cross-validate these results in order to determine the stability of the regression equation. Instead, Darlington's (1968) shrinkage formula was utilized. This formula provides a conservative, yet reasonably accurate estimate of cross-validation expectation. When this formula was applied, the  $R^2 = .00$ , indicating that the  $R^2$  estimate of this sample was somewhat inflated. It is somewhat clear from this analysis that one cannot justifiably conclude that the additive theory predicts JI better than the previously discussed theories.

The second part of the analysis looked at a developmental model of JI, utilizing the aforementioned predictors, but placing them in a specific order. This time-based order was personal/demographic→personal/psychological→situational→outcomes→JI. The results of this analysis follow.

#### Maximum Likelihood Path Analysis of the Proposed Model

The results of the maximum likelihood path analysis are presented in Figure 2. The model presented in Chapter I was tested. Based on preliminary analyses of the data, it was decided to eliminate the job training variable from the



$$\begin{aligned} \epsilon_1 &= .00 & \epsilon_4 &= .74 & \delta_1 &= .24 \\ \epsilon_2 &= .65 & \epsilon_5 &= .70 & \delta_2 &= .89 \\ \epsilon_3 &= .91 & \epsilon_6 &= .55 & \delta_3 &= .00 \end{aligned}$$

Figure 2.--Standardized parameter estimates based on revised model.



path analysis. Inclusion of the job training variable produced extremely high estimates and huge standard errors for some of the parameters in the model. These results occur frequently when using LISREL and represent one of the problems with maximum likelihood path analysis. It can result from underidentification of portions of the model or extreme multicollinearity. The elimination of the job training variable, coupled with the fact that the paths from the personal/demographic variables to personal orientation were virtually zero, led to the removal of this personality variable from the final model. Finally, locus of control was eliminated from the model. Its correlations with most other variables were near zero while it contributed to creating rather high negative beta weights.

With 9 observed variables, there were 45  $(9 \times 10)/2$  available pieces of information. The revised model required the estimation of 38 parameters, thus there were 7 degrees of freedom with which to test the degree of fit of the observed data to the model.

In the lower left hand corner of Figure 2 are presented the paths to the uniqueness associated with each measured variable. These paths are designated as  $\delta$  for the independent variables and  $\epsilon$  for the dependent variables. The square of these paths represents variance in the measured variable not accounted for by the model and can include both errors of measurement and errors in specification of

the variables in the model. In the lower right hand corner of the figure, the intercorrelations among the residuals associated with each of the variables is presented. Correlations among residuals associated with job perception measures (i.e., job scope and dealing with others) and outcome variables (i.e., job satisfaction and reward expectancy) were estimated in the final model. Correlations among residuals associated with the situational variables and either higher order need strength (personal variable) or JI were fixed at zero. This seemed reasonable since these three groups of variables were collected at three points in time. On the diagonal values from 1 yields  $R^2$  for that variable. Thus the  $R^2$  for JI based on this model would be .09.

The correlations reproduced by the parameter estimates in Figure 2 are presented below the diagonal in Table 3. The  $\chi^2$  test of the difference between the observed and reproduced correlation matrix is not significant,  $\chi^2=6.60$ ,  $df=7$ ,  $p>.05$ . In the case of this particular test, the larger the probability (p) value, the better the fit of the model will be, given the number of cases. Researchers (e.g., Schmitt, 1978) have pointed out that the  $\chi^2$  test is dependent on sample size. When the  $\chi^2/df$  ratio is less than 1.00 it is an indication that the model fits too well. This type of model would be unlikely to remain stable in future samples. In the case of the model presented in Figure 2,

Table 3.--Reproduced Correlation Matrix and Residual Values of Revised Model<sup>a</sup>

Variables	1	2	3	4	5	6	7	8	9
Higher Order Need Strength (1)	---	.00	.00	.00	.00	.00	.00	.00	.00
Job Scope (2)	.07	---	.00	.00	.00	.00	.05	-.07	.11
Dealing with Others (3)	.10	.20	---	.00	.00	.01	-.07	-.18	.02
Job Satisfaction (4)	.11	.38	.08	---	.00	.00	.03	.07	.04
Reward Expectancy (5)	.04	.45	.16	.38	---	.00	.13	.01	.02
Job Involvement (6)	-.05	.07	.03	-.01	.10	---	-.03	.03	.01
SES (7)	-.08	-.11	.13	-.07	-.26	.06	---	.00	.00
Participation in High School Activities (8)	.05	.14	.36	-.13	-.02	-.06	.04	---	.00
High School Grades (9)	.09	-.23	-.03	-.07	-.04	-.02	.06	-.24	---

<sup>a</sup>Numerals presented below the diagonal represent the reproduced correlation matrix of the revised model. Numbers above the diagonal are the residuals.

the  $\chi^2/\text{df}$  ratio is less than 1.00, thus one must be wary of the model's probability and replicability.

There are other indications that the model as it stands fits the data fairly well. The average difference between the observed and reproduced correlations is .025. Also, virtually all of the individual residual correlations are small, with most less than .04 and only three above .10 (presented above the diagonal in Table 3). The largest difference occurred between participation in high school activities and dealing with others. While the addition of this path did increase the model's probability, it did not reduce the residual difference, thus was not included in the model. Finally, a reliability index discussed by Tucker and Lewis (1973) was above the .90 value which they indicated as quite satisfactory. This index represents the ratio of variance the model has accounted for relative to the total observed variance. The reliability coefficient exceeded positive one ( $\rho=1.16$ ). As Burt (1973) has noted, the degrees of freedom used in the reliability formula presented by Tucker and Lewis (1973) is the number of over-identifying degrees of freedom as with an unrestricted model. This will produce reliabilities slightly over 1.00 in cases when the model fits the data extremely well.

The strength of the effect of the independent variables on the dependent variables and the amount of dependent variable variance attributable to each independent

variable may also be examined. Table 4 presents the sum of the direct and indirect effects of each of the independent variables on the dependent variables as well as the multiple correlations for each dependent variable. One may see from this table, for example, that the independent variables (SES, participation in high school activities, and high school grades) did not have much effect either directly or indirectly on JI. The strongest effect for independent variables is that of participation in high school activities and high school grades on higher order need strength. This is consistent with the hypothesized model which indicated that background variables have a direct impact on personality variables.

In viewing the multiple Rs, additional factors should be kept in mind. First, data were collected at three points in time, therefore correlations will be lower than those from similar studies reporting cross-sectional data (e.g., such may be the case for job scope). Low multiple correlations also indicate that not all of the relevant variables have been specified. Finally, the R of .75 for reward expectancy is perhaps somewhat inflated because job outcome (i.e., job satisfaction, reward expectancy) and situational perception (i.e., dealing with others, job scope) variables were measured at the same point in time.

Table 4.--Direct and Indirect Effects of Independent Variables on Dependent Variables and Multiple Correlations Associated with Dependent Variables

Dependent Variable	SES	Participation in High School Activities	High School Grades	R
Higher Order Need Strength	-.12	.24	.23	.25
Job Scope	-.01	.02	.02	.01
Dealing with Others	-.03	.06	.06	.25
Job Satisfaction	-.02	.04	.04	.45
Reward Expectancy	-.01	.01	.01	.75
Job Involvement	.01	-.01	-.01	.30

### Summary of Results

Limited support was found for the additive effects theory of JI as compared to either the individual difference or situational perspectives. The support was limited in that the application of a shrinkage formula revealed that the expected cross-validated  $R^2$  would be .00. Further, there was some evidence presented which suggested that the samples tested in the three theoretical equations were not directly comparable.

An hypothesized developmental model of JI was tested. A revision of the model was shown to fit the current data. This revision supported the hypothesized general causal links of the original model in that personal/background→variables personal/psychological variables→situational variables→outcomes→JI. Once again, interpretation and generalization of these results are limited. Several reanalyses (i.e., model trimming) occurred in order to produce an optimal fit. Also, sample size was relatively low. Finally, the  $R^2$  for JI in the model was low.

## CHAPTER IV

### DISCUSSION

A brief discussion of the stepwise regression results will occur first in this section followed by a look at the path analytic results. An important point to be made here which will be reemphasized at various points is that the results would best be treated as those from an exploratory study. Generalizability to other samples is thus limited. Primarily this is due to the low sample size which existed in many of the analyses. Also, as was indicated earlier, the representativeness of this sample to the working population is suspect. That is, as noted earlier, there were somewhat more females in the sample (68%) than in the overall work force (40.5%). Finally, changing sample sizes in the analyses (due to missing data) leads one to wonder if the sample itself changed. With this in mind, we may view the current study's results.

The stepwise regression results (prior to the application of the shrinkage formula) give additional support to the additive effects (or interaction) theory of JI. Variables tested under the earlier, individual difference and situational theory assumptions respectively, failed to offer much



in the way of explaining JI variance. When all of the variables were combined, however, a substantially higher amount of JI was accounted for (18.2%). This finding supports the earlier findings of Schuler (1975) and Rabinowitz, Hall and Goodale (1977). On the surface it would appear that this is proof in support of the additive theory perspective, given that the combination of situational and individual difference variables in three different samples turned out to be the "best" approach to predicting JI. When applying the shrinkage formula to the current sample, however, the conclusiveness of the prior statement suddenly appears debatable. This, of course, is partly a function of the sample size as well as number of predictors in terms of the current sample but it also opens up the question as to the meaningfulness of the results of the other two studies mentioned in this section. In neither case were the regression results cross-validated or subject to a shrinkage formula. They were also both cross-sectional studies. Thus those results were probably only slightly inflated, since both of those studies had larger sample sizes and fewer predictors than the current study. The best that the current study can do, I believe, is offer cautious support of the additive theory perspective and suggest that a larger, similar sample be longitudinally tested with related variables in order to check out the generalizability of these results.

The second portion of the study attempted to arrive at a more specific ordering of potential predictors of JI. In placing the predictors in a time-based or longitudinal framework, it was hoped that some of the causal determinants of JI could be specified. Through the process of model trimming (Griffin, 1977), variables were systematically eliminated in order to arrive at a solution using the LISREL program. A revised model was presented. This model accounted for a relatively small portion of the variance in JI (9%).

In terms of specific relationships, the strongest paths leading to JI appear to start with either participation in high school activities or high school grades (in reality a negative path since grades were reverse-coded as compared to other variables in the study). The intermediate paths in the model connect these variables through need strength to dealing with others, which, in turn, leads to job satisfaction. Finally, job satisfaction leads (negatively) to JI. A lesser path linked the aforementioned personal/demographic variables through need strength to job scope which, in turn, led to both job satisfaction and reward expectancy, finally linking up to JI. SES was the weakest of the independent variables but did display a relatively weak negative path through need strength to the previously discussed variables. The flavor running through the relationships here appears to be one of social

interaction with others starting with high school days (at least) and carrying over into work. For example, those individuals who were the more active participants in high school activities displayed higher levels of need strength. Perhaps the importance of relatedness needs (within the need strength variable) emerges in that these individuals perceive greater amounts of dealing with others on their jobs which make them more satisfied. The aspect of social factors and their impact on JI has been downplayed in recent years (while almost exclusively emphasizing intrinsic, growth factors), perhaps unjustly. For the new worker, it may be an important area to consider. While the path from need strength to job scope was rather small, paths from scope (a more "growth" related measure) to satisfaction and reward expectancy were both positive with the latter variable displaying a positive path leading to JI. Thus those individuals who believed that higher-order rewards would result from their job were more job involved.

Somewhat surprising is the negative path from satisfaction to JI. However as Locke (1975, p. 1301) has noted, the highly job involved person "should be more likely to feel extremely satisfied or extremely dissatisfied" with the job. This is due to the strong relationship of one's self-image to the job itself. With this definition of JI in mind, the aforementioned negative path is not as surprising as originally thought. One might also speculate

that the job involved individual projects perfection; thus is always questioning and never fully satisfied with his/her job.

SES proved to be a very weak, virtually non-existent link in this model. Perhaps this approach to the socialization process (i.e., through a surrogate measure such as SES) was not a good one. SES does not get at all aspects of socialization. A more direct observation of early socialization practices within the family may be in order. In some respects, the sex of the child influences many of these practices. Sex was not explored in the current model, but should be in future tests of developmental models. Evidence exists that males and females have traditionally been expected to differ in their approach to work roles and this may be, in part, due to their upbringing (Terborg, 1977).

It is worth discussing a few of the variables which did not appear in the final model in terms of their utility in the study of JI. The first of these is the job training variable which was hypothesized as being a potential behaviorally-oriented index of JI. As the stepwise regression results indicated, individuals participating in a job training program tended to be more job involved than others. Unfortunately, there was only a relatively small number of these people in the current sample. An organization offering a voluntary job training program for all workers might

be a better setting in which to test the merits of this variable as a behavioral predictor of JI.

The personal orientation (or differentiation) variable is another measure which might prove to be useful in relation to JI in a different type of sample. Its meaning would probably be clearer in testing workers in the same type of job rather than widely diversified job categories as was the case with this group. Those individuals who are more strongly oriented towards the primary interest of the job (e.g., high "social" score vs. other scores for a social worker) would probably be more job involved. This remains to be tested.

Of note is the rather low level of zero-order correlations between JI and the other variables in the study. This, in part, is probably due to the longitudinal nature of data collection where JI was collected 10-20 months after the other variables studied. As such, lower correlations would be expected as compared to cross-sectional studies. For example, Rabinowitz and Hall (1977) reported that the approximate magnitude of the relationship between job characteristics (i.e., scope) and JI to be .30. In the current study the correlation was .07. Another potential way of looking at the weak correlations with JI might be the pattern of accommodation of this sample. Presthus (1965) labelled individuals who redirect their attention to off-the-job satisfactions and withdraw from the work environment

as "indifferents." It might be the kinds of jobs which the individuals find themselves on which contribute to this attitude. Since this sample consisted of high school graduates, one would not expect to find them in high executive positions as their initial job. In fact, many of these full time workers were in secretarial positions and other blue collar type jobs.

### Limitations

Cautious interpretation of results has been a recurring theme throughout this paper. One limitation which has often been discussed is that of the sample size. While the total sample consisted of several hundred respondents, by isolating out a subsample of full time workers, the potential N was greatly reduced. This low N, coupled with the question about the representativeness of the sample at various points in the analysis as well as to the working population limits the generalizability of the results. A sample more representative of the general working population would seem to be desirable in future testing of a model such as this.

Another factor limiting the generalizability of the results deals with the model itself. The hypothesized model was sequentially modified to a point where the result could be considered unique to this sample. At best, the model should be treated as an exploratory one and tested further before attempting any generalizations.

Also, as noted earlier, alternative causal models of JI cannot be dismissed solely on the basis of the current study's results. There is clearly room for further development.

An issue might also be raised concerning the "proper" time lag between data collection points. A 10 month time lag may not have been sufficient enough in order to gather data dealing with the socialization process. A lifetime may be the correct approach to take. Observations of family socialization practices and the tracing of the youth up to and including the organizational entry and socialization process would give us richer, more meaningful data. This kind of approach may require the combined talents of developmental, vocational and organizational psychologists.

#### Future Research

Research on JI has increased dramatically in the past few years. With the interest this decade in quality of work life issues, I would expect research to continue to flourish in this area. In line with this, there are certain specific areas which could be expanded upon in future research.

Much more research is needed in exploring the roots and development of JI. This study has proven to be a starting point for such exploration. The impact of family socialization practices on development of job attitudes such as JI is one approach worthy of exploration. Longitudinal

research designs tracing the same workers over several years and for several jobs might be the most fertile way of carrying out such a study. The theoretical notions of Holland (1973) while only touched upon here, would be a potential framework in which to examine the development of JI. The congruence (or job-person matching) process can be explored among people on the same job.

Models of JI should also consider the influence of potential moderators such as career stage of the individual. Different factors would logically appear to be more meaningful to individuals at different career stages. For instance, Hall (1976) has noted that challenging jobs are highly important to individuals first joining the job market. On the other hand, those in late career stages may have stronger desires for feeling secure which may in turn make them more job involved. This should be explored in future research.

The measurement of JI to date has been of very limited scope. With few exceptions, it has consisted of questionnaires utilizing Likert-type formats. Other methods of data collection are needed in order to obtain richer, more meaningful data. One such method is the use of time diaries or records of activities (Gechman and Wiener, 1975) which might be used comparatively with an attitude scale such as Lodahl and Kejner's (1965) in order to see whether an



individual's expressed attitudes and behavior actually do agree with each other.

The use of more open-ended approaches such as interviews, case studies, and discussion of critical incidents are potentially useful in learning more about an individual's involvements, be they on the job or related to other aspects such as family or community. All of the methods offer the individual a better opportunity to express him or her self. The priorities of the individual could become clearer by giving the person the chance for self-expression.

Necessary also is a closer examination of questionnaire items utilized in measuring JI. Can one interchangeably use the terms "work" and "job" without evoking different, conflicting thoughts in the respondent? Also, when using an item such as "I live, eat, and breathe my job," does an affirmative response really represent a positive attitude towards the job and a good quality or is it too extreme with negative consequences (i.e., workaholism)? Further thoughts on a revised questionnaire are addressed in the following paragraphs.

Another consideration in future research should be to further unify similar literatures in psychology and sociology dealing with the topics of involvement and alienation respectively. Steps toward this have been made recently (Kanungo, 1979), and the development of an instrument which could assess alienation on one end of a continuum

and overinvolvement on the other end might be a way to further link the two literatures. Also, in the context of new workers, the study of process models leading to alienation or involvement might aid in early career placement and counseling.

The relatively low  $R^2$  for this and other studies on JI indicate that we are not as yet getting to the core of JI. One suggested area to examine deals with competing alternative involvements and non-job related factors (e.g., family involvement). This area has rarely been explored in the organizational psychology literature and represents tunnel-vision on our part if we are to get a true well-rounded portrait of the work force.

Additionally, role variables (e.g., role conflict and ambiguity) and reference groups are worth exploring apropos to their positive and negative impact on JI. Role ambiguity was found negatively correlated with JI in one recent study by Van Sell, Brief, and Schuler (1976). Reference groups (e.g., members in professional organizations) may have the opposite effect.

The discussion of reference group influence may be perceived as a subset of social or interpersonal factors which are worthy of examination in relation to JI. JI researchers have emphasized the more "growth" oriented aspects of jobs at the apparent cost of looking at interpersonal/social factors on the job. The current study brought out

the point that consideration of socially-oriented variables cannot be dismissed in the study of JI. Also, realistically, interpersonally-oriented factors should be explored since it is virtually impossible to provide "enriching" (high growth-oriented) jobs for everyone. These interpersonal dimensions may be esteem builders in their own right. The ability to interact with people from the same or other work areas could aid in the process of becoming job involved. A final thought related to social factors is that their consideration may open doors to more cross-cultural research on JI. Some societies do not place the same emphasis on the intrinsic/growth job aspects as does Western society; thus the development of JI may not occur in the same way.

Finally, one sobering thought cannot be avoided. One must wonder whether JI is anything more than another form of social desirability. Future research should also address this issue.

## APPENDIX

## APPENDIX

### Time One

#### High School Activity Scale

For the following set of questions, mark on the answer sheet how much you took part in various groups while in high school. Use the scale below:

- 1 = did not take part
- 2 = was a member, but not very active
- 3 = active member
- 4 = active member who took a leadership and/or organizing role

- 405. student government
- 406. a religious organization or club
- 407. a hobby club or group
- 408. a musical group or club
- 409. an artistic or literary group or club
- 410. community oriented volunteer work
- 411. speech or debate teams
- 412. organized athletic teams that represented your school in competition with groups from other schools.
- 413. intramural athletic activities (sports activities that did not include competition with groups from other schools).

Locus of Control (Internal External Control)

How much do you agree or disagree with each of the following statements? Mark your answer on the answer sheet according to the scale below.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Disagree
- 4 = Strongly Disagree

- 144. Many of the unhappy things in people's lives are partly due to bad luck.
- 145. In the long run, people get the respect they deserve in this world.
- 146. Without the right breaks, one cannot be a good leader.
- 147. What happens to me is of my own doing.
- 148. Becoming a success is a matter of hard work; luck has little or nothing to do with it.
- 149. When I make plans, I am almost certain that I can make them work.
- 150. In my case, getting what I want has little or nothing to do with luck.
- 151. Who gets to be boss often depends on who was lucky enough to be in the right place first.
- 152. Most people don't realize the extent to which their lives are controlled by accidental happenings.
- 153. Many times I feel that I have little influence over the things that happen to me.
- 154. In the long run, the bad things that happen to us are balanced by the good ones.

Higher Order Need Strength

The following set of items assessed the importance to the respondent of higher order needs.

Using the scale below rate the importance of each of the following items in terms of the job you would like to get. Use the following scale:

- 1 = Very Important
- 2 = Of some Importance
- 3 = Of little Importance
- 4 = Of no Importance

- 171. Coworkers who will cooperate with me
- 172. Opportunities for personal growth and development
- 174. Opportunity to develop friendships with associates
- 175. Developing new skills and knowledge at work
- 176. Opportunity to think and act on my own
- 177. Feeling of prestige
- 179. Trust between me and my associates
- 180. Self-esteem
- 184. Being accepted by others

#### Personal Orientation

The following 120 items belong to six interest scales. The items and the names of the scales are:

- Items 208 - 227 = Realistic Interests
- Items 228 - 247 = Investigative Interests
- Items 248 - 267 = Artistic Interests
- Items 268 - 287 = Social Interests
- Items 288 - 307 = Enterprising Interests
- Items 308 - 327 = Conventional Interests

For the following set of items, indicate whether you think you like the activity or occupation mentioned or whether you dislike it according to the following scale:

- 1 = Dislike
- 2 = Don't Care
- 3 = Like

- |                          |                          |
|--------------------------|--------------------------|
| 208. Military officer    | 216. Locomotive engineer |
| 209. Auto racer          | 217. Rancher             |
| 210. Auto mechanic       | 218. Shop foreman        |
| 211. Airplane pilot      | 219. Tool maker          |
| 212. Building contractor | 220. Agriculture         |
| 213. Carpenter           | 221. Industrial arts     |
| 214. Civil engineer      | 222. Mechanical drawing  |
| 215. Farmer              | 223. Hunting             |

- |   |                                   |
|---|-----------------------------------|
| 224. Popular mechanical magazines             | 271. High school principal        |
| 225. Cabinetmaking                            | 272. Playground director          |
| 226. Operating machinery                      | 273. School teacher               |
| 227. Be a Forest Ranger                       | 274. Social worker                |
| 228. Architect                                | 275. Worker in YMCA/YWCA          |
| 229. Astronomer                               | 276. Sociology                    |
| 230. Author technical book                    | 277. Go to church                 |
| 231. Chemist                                  | 278. Leading a Scout troop        |
| 232. Geologist                                | 279. Church youth group           |
| 233. Inventor                                 | 280. Social problem movies        |
| 234. Psychologist                             | 281. Give "first aid" assistance  |
| 235. Physician                                | 282. Interview people for job     |
| 236. Scientific research worker               | 283. Teaching children            |
| 237. Surgeon                                  | 284. Teaching adults              |
| 238. Botany                                   | 285. Adjust personal difficulties |
| 239. Calculus                                 | 286. Contribute to charity        |
| 240. Chemistry                                | 287. Babies                       |
| 241. Mathematics                              | 288. Auctioneer                   |
| 242. Nature study                             | 289. Auto salesperson             |
| 243. Physics                                  | 290. Buy merchandise              |
| 244. Psychology                               | 291. Hotel manager                |
| 245. Chess                                    | 292. Life insurance salesperson   |
| 246. Do research work                         | 293. Real estate salesperson      |
| 247. Outstanding scientists                   | 294. Retailer                     |
| 248. Actor                                    | 295. Sales Manager                |
| 249. Artist                                   | 296. Manager, Chamber of Commerce |
| 250. Author of novel                          | 297. Specialty Salesperson        |
| 251. Cartoonist                               | 298. Stockbroker                  |
| 252. Art museum director                      | 299. Traveling salesperson        |
| 253. Interior decorator                       | 300. Wholesaler                   |
| 254. Photographer                             | 301. Interviewing people          |
| 255. Musician                                 | 302. Start conversation           |
| 256. Orchestra conductor                      | 303. Bargaining (swapping)        |
| 257. Poet                                     | 304. Buying merchandise           |
| 258. Sculptor                                 | 305. Aggressive people            |
| 259. Art                                      | 306. People assume leadership     |
| 260. Dramatics                                | 307. Made fortune in business     |
| 261. Sketch pictures of animals               | 308. Bank teller                  |
| 262. Art galleries                            | 309. Cashier in bank              |
| 263. Poetry                                   | 310. City or State employee       |
| 264. Magazines about art and music            | 311. Income Tax accountant        |
| 265. Look at collections of antique furniture | 312. Office manager               |
| 266. Musical genuises                         | 313. Private secretary            |
| 267. Prominent artists                        | 314. Statistician                 |
| 268. Athletic director                        | 315. Arithmetic                   |
| 269. Minister, priest, rabbi                  |                                   |
| 270. Employment manager                       |                                   |



- |                                 |                                       |
|---------------------------------|---------------------------------------|
| 316. Bookkeeping                | 323. Regular hours for work           |
| 317. Economics                  | 324. Developing business systems      |
| 318. Spelling                   | 325. Saving money                     |
| 319. Typewriting                | 326. Thrifty people                   |
| 320. Business methods magazines | 327. Insist on things in proper place |
| 321. Make statistical charts    |                                       |
| 322. Methodical work            |                                       |

### Time Two

### Job Scope

Respondents were asked to discuss each of the following aspects in their job. Except where noted, the subjects responded to the following scale:

How accurate is the statement in describing your job?

1. Very Inaccurate
2. Mostly Inaccurate
3. Slightly Inaccurate
4. Uncertain
5. Slightly Accurate
6. Mostly Accurate
7. Very Accurate

### Autonomy

108. How much autonomy is there in your job? That is, to what extent does your job permit you to decide on your own how to go about doing your work?

1-----2-----3-----4-----5-----6-----7

Very little;  
the job gives  
me almost no  
personal "say"  
about how and  
when the work  
is done.

Moderate autonomy,  
many things are  
standardized and not  
under my control,  
but I can make some  
decisions about the  
work.

Very much;  
the job gives  
almost com-  
plete respon-  
sibility for  
deciding how  
and when the  
work is done.

122. The job denies me any chance to use my personal initiative or judgement in carrying out the work.
126. The job gives me considerable opportunity for independence and freedom in how I do the work.

### Task Identity

109. To what extent does your job involve doing a "whole" and identifiable piece of work? That is, is the job a complete of a piece of work that has an obvious beginning and end? Or is it only a small part of the overall piece of work, which is finished by other people or by automatic machines?

1-----2-----3-----4-----5-----6-----7

My job is only a tiny part of the overall piece of work; the results of my activities cannot be seen in the final product or service.

My job is a moderate-sized "chunk" of the overall piece of work; my own contribution can be seen in the final outcome.

My job involves doing the whole piece of work, from start to finish; the results of my activities are easily seen in the final product or service.

116. The job is arranged so that I do not have the chance to do an entire piece of work from beginning to end.
124. The job provides me the chance to completely finish the pieces of work I begin.

### Skill Variety

110. How much variety is there in your job? That is, to what extent does the job require you to do many different things at work, using a variety of your skills and talents?

1-----2-----3-----4-----5-----6-----7

Very little,  
the job  
requires me to  
do the same  
routine things  
over and over  
again.

Moderate Variety

Very much;  
the job re-  
quires me to  
do many dif-  
ferent things,  
using a  
number of  
different  
skills and  
talents.

114. The job requires me to use a number of complex or high-level skills.

118. The job is quite simple and repetitive.

#### Feedback from the Job

113. To what extent does doing the job itself provide you with information about your work performance? That is, does the actual work itself provide clues about how well you are doing--aside from any "feedback" coworkers or supervisors may provide?

1-----2-----3-----4-----5-----6-----7

Very little;  
the job itself  
is set up so I  
could work forever  
without finding  
out how well I am  
doing.

Moderately; some-  
times doing the job  
provides "feedback"  
to me; sometimes  
it does not.

Very much,  
the job is  
set up so that  
I get almost  
constant  
"feedback"  
as I work  
about how  
well I am  
doing.

117. Just doing the work required by the job provides many chances for me to figure out how well I am doing.

125. The job itself provides very few clues about whether or not I am performing well.

Task Significance

111. In general, how significant or important is your job? That is, are the results of your work likely to significantly affect the lives or well-being of other people?

1-----2-----3-----4-----5-----6-----7

Not very significant; the outcomes of my work are not likely to have important effects on other people.

Moderately Significant

Highly significant; the outcomes of my work can affect other people in very important ways.

121. The job is one where a lot of other people can be affected by how well the work gets done.

127. The job itself is not very significant or important in the broader scheme of things.

Dealing With Others

119. The job can be done well by a person working alone--without talking or checking with other people.

115. The job requires a lot of cooperative work with other people.

107. To what extent does your job require you to work closely with other people (either "client," or people in jobs like yours in the organization)?

1-----2-----3-----4-----5-----6-----7

Very little; dealing with other people is not at all necessary in doing the job.

Moderately, some dealing with others is necessary.

Very much; dealing with other people is absolutely essential and crucial part of doing the job.

### Reward Expectancy

For each of the following list of things indicate how likely you think it will be that you will get a particular item if you continue to do what you're doing now (going to school or working)? Use the scale below to indicate your expectations concerning each of these items.

1. Definitely Will Result
  2. Probably Will Result
  3. Uncertain As To Outcome
  4. Probably Will Not Result
  5. Definitely Will Not Result
- 
27. Cooperative coworkers
  28. Chance for personal growth and development
  29. Feeling of prestige
  31. Chance to develop new skills and knowledge at work
  32. Chance to develop friendships with coworkers
  34. Chance to think and act on my own
  35. Trust between me and my associates
  38. Self-esteem
  40. Being accepted by others

### Job Satisfaction

Answer questions 128-147 only if you have a part-time or full-time job at the present time. If you do not, leave these items blank. Use the scale below:

1. Very Satisfied
2. Satisfied
3. Neutral (means I can't decide whether I am satisfied or not with this aspect of my job)
4. Dissatisfied
5. Very Dissatisfied

On my present job, this is how I feel about

128. Being able to keep busy all the time
129. The chance to work alone on the job



- 130. The chance to do different things from time to time
- 131. The chance to be "somebody" in the community
- 132. The way my boss handles his employees
- 133. The competence of my supervisor in making decisions
- 134. Being able to do things that don't go against my conscience
- 135. The way my job provides for steady employment
- 136. The chance to do things for other people
- 137. The chance to tell people what to do
- 138. The chance to do something that makes use of my abilities
- 139. The way company policies are put into practice
- 140. My pay and the amount of work I do
- 141. The chances for advancement on this job
- 142. The freedom to use my own judgment
- 143. The chance to try my own methods of doing the job
- 144. The working conditions
- 145. The way my coworkers get along with each other
- 146. The praise I get for doing a good job
- 147. The feeling of accomplishment I get from the job

### Time Three

#### Job Involvement

Answer questions according to the scale below:

- 1. Strongly Agree
- 2. Agree
- 3. Neither Agree Nor Disagree
- 4. Disagree
- 5. Strongly Disagree

- 174. The major satisfaction in my life comes from my job.
- 175. The most important things that happen to me involve my work.
- 176. I'm really a perfectionist about my work.
- 177. I live, eat and breathe my job.
- 178. I am very much involved personally in my work.
- 179. Most things in life are more important than work.



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