# TECHNOLOGY, ALIENATION, AND THE SOUTH KOREAN FACTORY WORKER

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# TECHNOLOGY, ALIENATION, AND THE SOUTH KOREAN FACTORY WORKER

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Studies have shown that workers' relationships to technology influence their degree of job-related alienation in a predictable way (Blauner, 1964; Faunce, 1958; 1965; 1968; Shepard, 1970; 1972a; 1972b). Specifically it was found that among three types of technological settings, the mechanized production system is most conducive to worker alienation and the craft production and automated production systems are much less so.

Alienation is conceived as the social-psychological separation of a subject from some referent as a result of certain conditions. Functional differentiation* is related to workers' feelings of alienation and the work situation is the referent from which a person is alienated. The feelings of alienation occur when the worker perceives that the structure of the workplace limits his job-related autonomy and control (powerlessness); curtails knowledge of interrelationships among jobs (meaninglessness); and limits the

*Functional differentiation is used interchangably with division of labor and functional specialization.

opportunity to advance on the basis of merit (normlessness).

The purpose of this thesis is to pursue further some earlier research conducted by Jon Shepard on alienation among factory workers in the United States. Comparable data were collected in two different types of factories in Seoul, South Korea, between 1975 and 1977.

Some hypotheses are supported, but some are rejected. It was found that among the three types of functional differentiation, mechanized production is most conducive to feelings of powerlessness, meaninglessness, normlessness, and isolation from work. The craft and automated production systems are much less so.

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TABLE OF CONTENTS

LIST OF TABLES

# Chapter I

## INTRODUCTION

From Marx to Marcuse, numerous social scientists have been concerned with the effects of increasing mechanization and job routinization upon the worker (Marx, 1963; Marcuse, 1964). It seems that most students who study the effects of industrial technology upon man harbor some resentment of machines. Writers such as Blauner (1964), Faunce (1958; 1965), and Shepard (1972b) acknowledge that machines lighten the burden of the workers, but concomitantly view them as intruding upon his freedom and dignity. In the past, according to Durkheim, man enjoyed work because of the control exercised over it, the skill involved, and the fact that it was performed within the locale of family and community (Durkheim, 1964:10-18). Among today's industrial workers only craftsmen who work with hand tools are believed to be capable of enjoying their work. Because they have stripped workers of their skills, machines are thought to have isolated workers from each other, from their families, and from the "true nature of man" as a creative being. Fromm (1955), Marcuse (1964), and Marx (1963) have argued that machines have so estranged man from his "self" that he can only despise and feel alienated from his productive labors (Ellul, 1967). Social psychologists such as Faunce (1968) and Kornhauser (1965) suggest that the absence of work-related autonomy and control leads to

unhappiness and alienation from the organization of which one is a member. Many studies have investigated the dissatisfaction of industrial employees, the classic examples being research on the automobile assembly line worker (Chinoy, 1955; Blauner, 1964; and Kornhauser, 1965 among many).

Juxtaposed to this image of today's industrial employee is the fact that in many studies, workers report that they are actually satisfied with their work (Blauner, 1960; Gurin et al., 1960). This contradiction raises certain questions. Do workers of today actually dislike their work and try to escape from it? Do they dislike the sociotechnical environment of the factory? Do they find their jobs so monotonous that they deprive them of feelings of positive self esteem? Is increased mechanization conducive to greater job dissatisfaction, and if so, might certain technologies restore a sense of control and understanding to one's job? (Form, 1973).

Within the realm of industrial sociology and the study of complex organizations, many researchers have sought to define worker unhappiness within the context of "human relations." Some salient variables for the researchers have been the social climate of the organization and the quality of contact between workers of the same status level or between supervisors and lower level workers. This is an area which rightfully should claim such attention, for the realm of authority relations and the quality of interactions with fellow workers and supervisors are indeed important factors when worker happiness and satisfaction are involved.

These earlier studies however, have not considered what may be called "man-machine relationships"; or the worker's relationship to the technology and the division of labor of the specified industrial setting. Marx pointed this out long ago in his discussion of man's alienation. For Marx, man's alienation is a series of relationships of man to either his labor, his labor's product, his tools of production, or his fellow workers (Marx, 1962). This notion has been reiterated by many, but most significant among these latter day writers have been Blauner (1964), Faunce (1965), and Shepard (1972a; 1972b), who have examined the development of the division of labor within a factory and its relationship to the type technology and accompanying work alienations. These authors have explored the relationship of the worker to the technological organization of the work process and to the social organization of the factory and have attempted to determine whether or not he experiences a sense of control rather than domination, a sense of meaningful purpose rather futility, an experience of social worth and integration rather than isolation, and a sense of involvement and self expression in his work rather than detachment and suppression.

Feelings of domination, futility, isolation, and inequity have been variously identified as being related to a general condition of alienation (see Seeman, 1959; Nettler, 1957; Dean, 1961). The idea that the industrial worker is alienated in his work situation has long been a central theme in Marxian views of modern society. Marxists have long believed that the lack of control and self

fulfillment in one's work process would eventually push the proletariate toward revolutionary activity. The concept of alienation has become the social scientist's janus headed tool for analysis of the impact of the industrial revolution on the working man.

With the advent of the industrial revolution, there was a displacement of craft-artisan methods of production, in which the artisan had been master of his tools and products, by a highly mechanized system. This highly mechanized system brought increasing structural differentiation with the creation of standardized labor procedures. In the new factories, those skills once possessed by artisans were built into the new machines. Instead of creative and self directed work, workers were forced into doing routine and monotonous jobs. Prior to the industrial period, the worker had considerably more control over his body rhythms and movements related to his work. But, with the coming of mechanization, the machine controlled the pace of the laborer's work as well as restricting his movements. Workers were thus subjected to the control of machines. Factory technology came to dominate the worker who felt powerless in this setting.

Accompanying this change in technology was an increase in the division of labor which made jobs simpler, thus reducing each employee's area of responsibility (Faunce, 1965). This reduction in responsibility resulted not only from technological change, but also from increasing rationalization of work procedures and concern with

efficiency. With the rationalization of production, the total work process was divided into increasingly smaller task roles. A worker's job was comprised of only one task, or a few simple tasks involving no responsibility or understanding of their place in the total productive process of the factory. With responsibility, problem solving, and decision making taken away from the work, his relation to his work was fragmented and not comprehensive (Blauner, 1964).

In addition, according to Marx, the worker was propertyless and possessed nothing but his labor, thus being alienated from the product of his labor. Since the factory and the tools used in production belonged to someone else, the worker was not likely to identify psychologically with the goals and profits of the organization. What motivation could there be to work with pride, energy, and responsibility if the profits from one's work did not benefit him personally? Thus, along with feelings of powerlessness and meaninglessness there comes another aspect of alienation, the employee's sense of isolation from the system of production and its goals (Blauner, 1964).

Many today argue that the modern factory technology also deprives the worker of a truly "human" relationship to his work. The loss of control at work also entails loss of freedom and creativity. The specialization of products and labor becomes so elaborate that the goals of the organization become increasingly distant to the worker and the work itself may become void of any cooperative meaning to him. As Faunce (1958) points out, the worker no longer identifies with the organization, but feels himself apart, or alienated from its

purposes. When the actual work activity does not permit a sense of control, or evoke some sense of purpose, or encourage identification with the organization, it has become simply a means to an end. For Marx, productive labor, which he held to be the expression of man's nature, had simply become an instrumental activity and not consummatory in itself.

Blauner (1964) and Faunce (1965) suggest that technology is the most important factor determinant of the charater of industry. Technology primarily refers to the machine system or the level of mechanization and its type. But technology also may include the "know how" and skills which are involved in production.

Faunce (1958) argues that technological development has progressed in three major stages: (1) that of a craft technology; (2) a mechanized production system; and (3) an automated system. In craft technology, there is little standardization of production, the level of mechanization is low, and the work is done by hand rather than by machine. The second stage is that in which greater mechanization is involved in the production processes. The third stage is characterized by a highly developed materials handling technology and especially by automatic production control. In today's work world, the mechanized system is amply represented by the assembly line technology of the automobile industry, with its highly rationalized work organization. The petroleum and chemical industries are based on a more advanced technology referred to as "continuous process" production, a form of automation.

Blauner has emphasized the need to study variation in technology, for he thinks this more than any other factor determines the nature of the job tasks that are to be performed (1964). Thus it is in the technological setting that this study seeks to find factors giving rise to feelings of powerlessness in the worker by limiting or expanding his freedom and control over the work environment.

## Chapter II

## RESEARCH PROBLEM

The purpose of this research is to pursue further Shepard's earlier research (1970; 1972a; 1972b) on alienation among factory workers in the United States. For this study, comparable data were collected in South Korea. An attempt is made to explore the relationships between different types of technology (and their associated types of functional specialization) and worker's job alienation in Korea, in comparison with Shepard's and other researchers' findings here in the United States.

The results of Shepard's studies suggest that the worker's relationship to technology influences the degree of job-related alienation and satisfaction (see also Blauner, 1964; and Faunce, 1958; 1965; and 1968). Specifically it was found that among three types of technology (craft, mechanized production, and continuous process) the mechanized production system is most conducive to worker alienation and job dissatisfaction while craft and automated production systems are much less so.

But, will this same pattern hold true for a different social and cultural setting, especially one that is much less industrialized than the United States? Does the alienation of South Korean workers vary according to type of technology in the same way as among American workers? Also, within the same technological or production systems, is there a difference in the degree of alienation between

U.S. and South Korean workers?

It is in response to these questions that this research was conducted. The settings are an industrial assembly line plant and an oil refinery representing highly functionally differentiated and automated technologies, in Seoul, South Korea. Researchers such as Form (1968; 1971; 1972; and 1973) have shown that work related alienation and job satisfaction vary significantly when studied in cross-cultural settings involving differing stages of industrial development. In other words, will a theoretical schema developed for the study of U.S. industrial workers be appropriate for research in a country of different value orientations and in an earlier stage of industrial development such as South Korea? Do work related freedoms and control mean as much to South Korean factory workers as they do to U.S. factory workers. Are our conceptualizations of alienation culturally bound, or are they universally applicable?

## Chapter III

## REVIEW OF LITERATURE

For the student interested in worker alienation, there is no dearth of reference materials. In fact, alienation is probably one of the more overworked concepts in modern social writings. But, a simple definition of alienation is difficult to find since many different intellectual schools and traditions have used this concept as a tool for analysis. The amorphous body of literature dealing with alienation includes a wide range of philosophical, political, psychological, and sociological orientations from right to left of the political spectrum.

As indicated above, early sociologist Karl Marx developed a strong base for the study of alienation that continues to serve as a model for modern social researchers. Marx was influenced by Hegel's idea that there is a "universal essence" of man, which in its realization constituted the self fulfillment of mankind (Faunce, 1968). For Marx, this process of self fulfillment occurs only through man's productive or creative labor. He states that labor ". . . is the existential activity of man, his free conscious activity. . . (and) . . . not a means for maintaining life but for developing his universal nature" (Fromm, 1966:44). In Marx's view, man, through his labor, should develop his full potentialities. But, with the mechanization of production, the process of self-realization is frustrated, with the alienation of the labor process

and the laborer a result. Erich Fromm (1966:44) described this well when he said:

> Alienation (or estrangement) means for Marx, that man does not experience himself as the acting agent in his grasp of the world, but that the world (nature, others, and he himself) remain alien to him. They stand above and against him as objects, even though they may be objects of his own creation. Alienation is essentially experiencing the world and oneself passively, receptively, as the subject separated from the object.

For Marx, alienation is not merely a physical relationship between man and production. Marx also recognized that certain social conditions give rise to certain psychological consequences or feelings of alienation (Israel, 1971:31-53). The subjective or social psychological dimension of alienation necessarily complements Marx's concern with the objective alienation of man.

According to Marx, the laborer under capitalistic modes of production is alienated from the product of his labor. The worker has no control over the disposition of the objects of his labor. For Marx, the product is encountered as an alien entity, a force that has become independent of its producer (Faunce, 1968). Next, Marx suggested that the worker becomes alienated from the means of production. With the coming of the factory system and mechanized production technology, the worker no longer owned and controlled the tools or machinery with which he carried out his labor. The laborer sold his labor as a commodity alien to him.

These first two forms of alienation are most pronounced in Marx's later writings. Earlier, in the Economic and Philosophic Manuscripts

of 1844, Marx concerned himself with another area of alienation, "self estrangement." Self estrangement refers to the condition of work no longer providing the opportunity for creation and self expression; thus, man alienates himself from himself. Marx expressed it as ". . . separation of the intellectual powers of production from manual labor. . ." through the use of machine technology, and he suggests that ". . . the special skill of each individual, insignificant operative vanishes as an infinite quantity before science, the gigantic physical forces, and the mass of labor that are embodied in the factory mechanism" (Marx, 1932:462). Marx, in Fromm (1970:462), also spoke of this condition by asking:

> What constitutes alienation of labor? First, that work is external to the worker, that it is not part of his nature; and that consequently, he does not fulfill himself in his work but denies himself, has a feeling of misery rather than well being; does not develop freely his mental and physical energies, but is physically exhausted and mentally debased. The worker therefore feels himself at home only during his leisure time, whereas at work he feels homeless. His work is not voluntary but imposed, or forced labor. It is not the satisfaction of a need, but only a means for satisfying other needs.

In Marx's model, the fact that work is a means rather than an end, an instrumental rather than a consummatory activity, gives it its alien nature. We find in Marx's concept of alienation a concern with existing economic and social conditions and how those conditions affect man. For Marx, the process of alienation is created by the three following social conditions: (1) the fact that man and his working power is transformed into a commodity; (2) the division of labor; and (3) private property. These social conditions give rise

to psychological conditions or feelings of alienation (Israel, 1971). Thus for Marx, alienation was a sociological process which is based on certain social conditions of capitalistic society and which sociologically affect the individual and his role in society (Israel, 1971; Kim, 1974).

Many contemporary sociologists have dealt with various sources of alienation. Most writers agree that alienation occurs as a result of some objective conditions, but they do so in terms of different referents from which man is said to be alienated. As one may determine even by casual reading, the term alienation has been used in such a variety of ways that Faunce is correct when he says it is ". . . close to being a shorthand expression for all the socially based psychological maladies of modern man" (1968:88).

Melvin Seeman identified five varying meanings or dimensions of alienation that represent the major ways in which the concept has been used in traditional sociology (Seeman, 1959). As apparent from his definitions, he bases these variant forms on the individual's expectations to control, understand, or interpret such social conditions.

The first and most common of these usages is that of <u>powerlessness</u>. This is a low expection that one's own behavior can control the occurrence of personal and social rewards. To the alienated man, this control seems to be effected through external forces or luck (Seeman, 1959).

A second major usage of the term is <u>meaninglessness</u>. Many

writers have concerned themselves with the difficulty which many individuals in rapidly changing societies face in finding appropriate standards with which to judge and interpret social events. A sense of meaninglessness involves a feeling of the incomprehensibility of social affairs. The individual experiences difficulty in making accurate predictions about the behaviors of others or about the outcome of his own actions. In more formal terms, this feeling involves a low expectation that satisfactory predictions about the future can be made (Seeman, 1959).

A third type, according to Seeman, is normlessness. This dimension is derived from Emile Durkheim through the work of Robert Merton in his Social Theory and Social Structure (1949). A sense of normlessness involves a high expectation that socially unapproved means are necessary to achieve certain goals. This entails a view that one is not bound by conventional standards in the pursuit of what may be socially approved goals. As Seeman points out in another paper (1972), a distinction is made between the notions of normlessness and meaninglessness because it allows one to distinguish between conditions where norms no longer guide behavior and those where norms are not clearly understood.

Isolation represents a fourth way in which the concept of alienation has been used according to Seeman. Seeman notes that ". . . the isolated are those who, like the intellectual, assign a low reward value to goals or beliefs that are typically highly valued in the given society" (Seeman, 1959).

The final variant identified by Seeman is that of self-estrangement. A person is self-estranged when he engages in activities that are not meaningful in themselves, but are simply means to other ends. This could involve the individual's participation in an activity that he does not deem important.

Seeman's definition of isolation as "a situation where individuals assign low reward value to goals or beliefs that are typically highly valued in a given society" (1959) is somewhat contradictory. He claims his definition of isolation is the same as Nettler's definition of alienation as "estrangement from society," and that it can, in a scale form, indicate the individual's attachment to traits of American mass culture. Here, Seeman confuses cultural isolation with social isolation because his isolation is from something and not from people. He later (1972) recognized this problem and added cultural isolation to his earlier five dimensions.

Russell Middleton (1963) made an attempt to tie together the "multiplicity of meanings attached to the concept of alienation." He uses Seeman's five variants, adding another component to Seeman's isolation as used in his 1959 article. First, there is cultural estrangement as represented in statements such as "I am not interested in the T.V. programs, movies, or magazines that most people seem to like." Secondly, he points to social estrangement as in "I feel lonely today." In this manner, Middleton attempts to clear up some ambiguities concerning the meaning of isolation (Middleton, 1963).

Others such as Israel (1971) conceive alienation as a

discrepancy between an objective situation and the expectations people have regarding that situation. According to this, what might be termed "discrepency theory," there are three kinds of referents from which alienation may be identified. One approach is called the holistic or macroscopic approach in which the referent for alienation is the world or society as a whole. In this case, alienation may be defined as a discrepancy between the world or society as it is and what it is felt that it should be. Alienation in this sense represents a gap between utopia and reality (Kim, 1975).

The second approach is microscopic in which one speaks of alienation in terms of specific organizations or work situations. Here alienation may be understood as a discrepancy between the objective work situation and the individual's expectations brought to that situation.

Finally, the third approach is an individualistic or atomistic approach in which one uses alienation in terms of self alienation. Alienation in this sense is a disjunction between what a person really is and what he should or wants to be. This approach may be useful in that by defining alienation as a discrepancy between an objective situation and the individual's expectations, the question of why all employees under the same conditions are not equally alienated can be explained to some extent.

Faunce and Shepard have also written of alienation as within the context of specific organizational settings as the focal referent from which man may be alienated. But, in a somewhat different way,

these writers view powerlessness, meaninglessness, and normlessness as intervening psychological conditions which mediate between the objective structural conditions and dimensions of alienation (self estrangement and isolation, cultural and social).

For present purposes, it is sufficient to consider alienation as a general syndrome comprised of objective conditions and subjective feelings on the part of the worker. This establishes a good foundation on which to develop a discussion of powerlessness, meaninglessness, normlessness, self estrangement, and isolation within the context of two industrial worksites. These feelings may emerge from certain relationships between the workers and the sociotechnical settings of employment (Blauner, 1964). Alienation exists when workers are unable to control their immediate work processes, or to develop a sense of purpose and function which connects their jobs to the overall organization of production. It is also an inability to develop a sense of belonging to integrated industrial communities, or a failure to become involved in the activity or work as a mode of personal self expression. In the contemporary industrial world, control, purpose, social integration, and self-involvement are all problems facing organizational leaders. The next section considers how various aspects of the technology, work organization, and the social structure of modern industry may work to enhance the development of powerlessness, meaninglessness, normlessness, isolation, and self estrangement within the work situation.

Chapter IV

# POWERLESSNESS, MEANINGLESSNESS, NORMLESSNESS, SELF ESTRANGEMENT, AND ISOLATION IN TWO INDUSTRIAL SETTINGS

This section deals with feelings of powerlessness, meaninglessness, normlessness, self estrangement, and goal isolation within the context of two different industrial settings. First, these feelings are explored for relevancy to an auto assembly line worker, and then a comparison is drawn between this type technology and that of automated process technology.

## POWERLESSNESS: WORKER FREEDOM AND CONTROL IN INDUSTRIAL SETTINGS

The complexity of industrial societies alone might be enough to induce feelings of powerlessness. A person feels a lack of power when he senses that he is an object controlled and manipulated by other persons or by some impersonal system of machines (technology). The individual is likely to feel powerless when he cannot act to change this feeling of sensed domination. The powerless person is a directed or dominated person rather than self-directive (Blauner, 1964). The opposite end of the continuum is occupied by freedom and control of one's actions and environment. Freedom exists to the degree that the work situation allows the individual to remove himself from those dominating situations that make him feel that he is simply a reacting object. Freedom may involve the possibility of physical movement, or the sense of social freedom as when one can quit a job knowing that alternatives exist for employment as good or better than previously

held. Control over one's destinies is more positive than freedom as it suggests that man is capable of asserting himself over the impersonal systems of technology and the authority relations with supervisory personnel.

Blauner (1964) observes that at least three variants of industrial powerlessness have emerged in writings on the subject. These are: (1) the separation of the worker from ownership of the means of production and the finished products; (2) the inability to influence general managerial policies; and (3) the lack of control over the immediate work process. The variant of concern in this study is the third, the lack of control over the immediate work process and environment as determined by the nature of the technological design.

Social scientists have studied the worker on the assembly line extensively and have provided a wealth of data concerning the powerlessness of the worker in his relationship to a dominating technological system (Walker and Guest, 1952; Chinoy, 1955; Walker and Turner, 1956; Blauner, 1964). According to some writers, when the worker is controlled by a machine, he is himself reduced to a mechanical being. He is forced to react to the rhythms of the machine technology rather than acting in an independent or autonomous manner. Many studies show that assembly line workers resent the domination of technology and are constantly involved in trying to devise new ways to gain some form of control over this machine system (Gouldner, 1954; Galenson and Lipset, 1960).

For a worker to control his environment he must have freedom of

movement, freedom of choices in work procedures, and freedom from oppressive constraints (Blauner, 1964). The component elements of control over the immediate work process are: control over the pace of work, control over the quantity of production; control over quality of production; and choice of techniques (Blauner, 1964). Of these, probably the most important is control over one's pace of work.

There is a difference between those jobs which are machine paced and those which are man paced. In the former, the machine controls the rhythms of work; the timing of the worker's action is dependent upon the speed of the machine. In the later, the worker can vary his rhythm of work (Dunlap, 1958).

Control over the pace of work is crucial for a worker's potential for feelings of powerlessness. Blauner calls the pace of work ". . . probably the most insistent, the most basic aspect of a job, and retaining control in this sense is a kind of affirmation of human dignity. This is also crucial because it influences other basic work freedoms" (Blauner, 1964:21). For instance, if a worker controls his work rhythms, then he can usually regulate the amount of pressure placed on him. In addition, freedom of physical movement is more possible when a worker can control his work rhythms and when he is relatively free from pressures. Some industrial jobs require the worker to stay close to the work station for eight hours a day, while others permit more freedom to move around the plant.

Control over one's pace of work will generally provide the workers

with some freedom to control the quantity of production. It is recognized that workers must attain some minimum of production, yet many workers are able to vary their outputs to considerable degree. Closely related to controlling the quantity and pace of production is the freedom to control the quality of one's work. If a worker controls the pace of the work process and is relatively free from pressures, like craft artisans, he can strive for a higher standard of workmanship. In a machine-paced system of high speed, standardized production, a worker's desire to perform quality work is frustrated by the nature of the technological system.

A final component of a worker's control over his work process refers to his freedom to choose the techniques of his work. In mass production systems, a worker hardly has the opportunity to make choices of how to do one's job. These decisions have been made by engineers and supervisors. Some industrial settings however, permit the worker to select work methods, allowing them to solve problems and use their own ideas.

In summary, Blauner identifies several job related freedoms that are related to control; the pace of work, freedom from pressures, freedom of physical movement, the ability to control the quantity and quality of production, and the freedom to choose the techniques of work. All combine to make up control over the immediate work process. When technological systems and their accompanying social organizations do not permit the achievement of the above mentioned freedoms, the alienating tendencies of the industrial worksite are intensified.

These variations in control over the immediate process of work are a principal focus of this paper. Three types of man-machine relationships are analyzed in terms of their tendencies to restrict worker freedom and autonomy. The following sub-section will focus on feelings of powerlessness, meaninglessness, normlessness, self estrangement, and isolation within the contexts of the auto assembly line technology and automated process industrial worksite.

The Automobile Worker and His Line: Fragmentation and Loss of Control

The automobile assembly line has been a subject of considerable discussion, having become what Walker and Guest have referred to as ". . . the classic symbol of the subjection of man to the machine in our industrial age" (Walker and Guest, 1952:16). While it is true that a majority of our industrial workers are not employed on the auto assembly line, enough are in this kind of work to permit a consideration of them as somewhat "typical" of industrial workers. After all, was it not Henry Ford's assembly line that sent cars spinning off faster than ever to a hungry public? This era represents the rise of American industrialism, highly mechanized production, and high functional specialization. The social structure of the industry is bureaucratic and highly oriented toward rationality and the maximization of efficiency. The production sites are very large, comprised of elaborate hierarchies of authority. The assembly line intensifies the tendency toward a greater division of labor since work operations are broken down into their simplest components. The

work is extremely synchronized and is scheduled with a high degree of co-ordination, allowing each worker to perform his operation at the appropriate time (Walker and Guest, 1952:10). Because of the extreme subdivision of labor, most jobs on an auto assembly line do not call for skills to the degree that craft industries do and most of the workers are classified as semi-skilled or unskilled (Walker and Guest, 1952:62).

In craft systems, the products are unique, with different problems for the laborer. Thus, from product to product, there may be required a variance of some body motions, of intellectual tasks, and use of one's imagination. This may be called low standardization of the product. In assembly line production, the standardization of products, and thereby functions of the worker, reaches extremes. In these industries, the technology involves standardization of the end product as well as the component parts. This mode of production does not require many of the qualities that are intrinsic to work in the craft industries, such as judgement, experience, and expertise in the coordination of the hands and eyes. Instead, an adequate job performance depends upon an easily developed "knack" or routine, that is perfected in a brief practice period (Walker and Guest, 1952).

The assembly of the parts in this mode of production takes place on a moving conveyor belt which moves partially assembled auto chasses past the worker at a fixed rate, never stopping except for mechanical breakdown. A worker is assigned a station along the line where he performs the same function repeatedly; and there are possibly thousands

of individual operations which go into the assembly of a finished product. As Blauner (1964:90) states:

> . . . individual operations necessary to complete the car are organized into an uninterrupted time space series and the jobs of the individual workmen are almost as subdivided as the parts which they assemble. The highly rationalized conveyor belt form of production is the most distinctive feature of the automobile industry.

The tremendous fragmentation of labor in the auto industry is seen in the brief time alloted to each job and the few operations which comprise it. Blauner reports the average time span of a worker's operation on the assembly line to be around sixty (60) seconds. As many as sixty cars per hour pass the worker on the line and he repeats the same task on a different car every minute for an eight hour period (Blauner, 1964). Walker and Guest report that in the plant they studied, the largest proportion of workers (32%) had jobs which consisted of only one operation (1952:40).

Worker vs. Line: Man and Control. In contrast to the freedom and control of the craft artisan worker, the conveyor belt dominates the entire work environment of the assembly line worker, directing his movements and choices of techniques. The essential feature of the assembly line found by Walker and Guest (1952) is that the pace of work is pre-determined by the belt (technology) and not by the worker. Walker and Turner (1956:11) quote a foreman as follows:

> The line here, the moving line, controls the man and his speed. Then no matter how slow a man is, he has to keep moving . . . this line controls him perfectly.

Blauner found that the major annoyance is not the belt's rapid movement, but rather its unchanging speed which does not take into account the fact that workers may need to vary their body rhythms during the course of an eight hour day.

Since the worker cannot control the pace of work, he is almost powerless to control or influence the pressure exerted upon him by the work. Pressure on the auto assembly line worker is greater than most other industries. Kilbridge (1960:12) rates the auto industry as a "fairly fast paced" industry. Comments from the workers at the plant studied by Walker and Guest bear this out:

> The line speed is too great. . . there's an awful lot of tension.
>
> The work isn't hard, its the never ending pace. Guys yell 'hurrah' when the line breaks down.
>
> On the line, you're geared to the line. You don't dare stop. If you get behind you have a hard time catching up. (Walker and Guest, 1952:51-52).

This machine-paced work rhythm is the central aspect of work on an assembly line. Many workers view the line's speed as "oppressive" and their negative attitudes spread to other aspects of the job. This technology and the accompanying organization of the work situation eliminate the worker's chances to control his pace, quality, and quantity of work. Usually, workers can adapt to this situation without much strain, but the resentment against the belt is not eradicated (Walker and Guest, 1952). In looking at the other aspects of powerlessness, it can be seen how the assembly line technology affects the entire work environment.

Control over Quantity and Quality of Work. Since the line so relentlessly determines the pace of work, an assembly line worker cannot control the quantity of his output. If the reader will recall, earlier it was mentioned that this is one of the components of freedom in the work setting: to the extent that a worker cannot control the pace or quantity, he is not free in his work environment. If a worker finishes his own tasks quicker than the line brings him work, he cannot speed up the number of cars moving through his station. Nor can he slow down his work without forcing a slowdown of the whole line, which can lead to reprimands and dismissal if continued (Walker and Guest, 1952).

In addition to lack of control over quantity, an assembly line worker has only partial control over the quality standards of the product. The assembly line seems to obstruct a worker's attempts to measure up to standards of excellence in work. Walker and Guest found that approximately 44% of the workers ". . . felt that it was difficult to sustain the kind of quality performance which was expected of them or which they themselves wanted to attain" (Walker and Guest, 1952:59). This difficulty of producing quality as well as quantity is due to the constant rhythm of the line and the consequent lack of control over its pace. In expressing his feelings concerning this aspect of work, one worker indicated that ". . . the bad thing about assembly lines is that the line keeps moving. If you have trouble with a job, you can't take time to do it right" (Walker and Guest, 1952: 59). And as Blauner points out very effectively:

> . . .since there is no opportunity to perfect difficult jobs where routine operations take place on a moving belt, a worker may paradoxically experience more sense of control over the quality of his product through occasional sloppy work than through the constant achievement of uniform standards (Blauner, 1964:104).

Lack of Control over Choice of Work Techniques. In the organizational work setting of the auto assembly line, the tools and special techniques to be used on each job are completely predetermined by engineers, personnel supervisors, and front line supervisors. The auto assembly line work environment is so minutely subdivided and highly rationalized that the workers have virtually no opportunity to solve problems or utilize their own ideas. Consider, for example, the situation where the worker cannot even vary the sequence of operations involved in his standardized tasks. Many jobs are designed so that they can be done in only one way with no variation in sequence. Thus the control of the assembly line over the worker is so complete that even physical movements are limited to and determined by the motions necessary to perform one's function. The worker must stay near his place of work almost constantly because of the never-ending pace of the conveyor belt.

In summary, the auto worker has very little control over his sociotechnical environment. The line's control over his pace and rhythm of work is dominating and largely responsible for a high degree of pressure, the inability to control the quantity and quality of work, and the lack of free movement. The extreme rationalization

in the organization of work roles also results in the lack of freedom to determine the techniques used in work. As Walker and Guest (1952) indicate, many of these assembly line workers may react to this lack of control by trying to find their own ways of asserting themselves over the technology and even possibly engaging in industrial sabotage. As Blauner contends, ". . . is it possible that throwing hand fulls of bolts and nuts in motors. . . are not simply anti-company gestures, but ways instead of getting even with a dominating technology?" (Blauner, 1964:107). In concluding this section, another quote from Blauner summarizes the argument very well, ". . . foremen do not have to pressure workers, the assembly line can do that" (Blauner, 1964:107).

The Continuous Process Monitor: Control and Freedom in Automated Technology.

Earlier reference was made to three levels of technological development: craft-artisan; highly functionally specialized; and automated or continuous process production. Automation was referred to as a possible reversal to the trend toward increasing functional specialization. Automated production, which has been termed by Diebold (1952) as the "Second Industrial Revolution" essentially involves a situation in which the human operator no longer is an essential part of the production process. Automation, as based on information feedback, is a kind of technology that controls its own operations. In an automated production system, the worker is eliminated as operator, serving instead as supervisor or monitor.

James Bright (1958) conceives of automation as simply something that is more automatic than it was previously. For Bright, this "automaticity: involves an increase in the control of the process by the technology itself. This occurs along with a greater degree of integration of the total production system (Shepard, 1972a). Within this context, Bright (1958) and Diebold (1952) converge in that they both see control and integration as characteristics of the most highly developed automated production systems. William Faunce defined automation as the "automatic control of an integrated system" (1968:49). For the purposes of this paper, the best examples of automation as defined in this way may be found in oil refineries and chemical processing plants. For this study, these aspects of freedom, control, and meaninglessness also will be considered within the realm of a petroleum refinery, a representative of a continuous process technological setting.

This continuous process plant is different from a typical factory in many ways. One encounters few machines and workers at the typical petroleum refinery. People seem to stand around and nobody is really making anything. Instead, there are numerous buildings and complex networks of large pipes. The refined petroleum flows through this system of pipes from stage to stage of the refining process without being handled by the workers. The flow of the materials, the addition of chemicals, and the control of temperature, pressure, and speed of these processes are regulated by automatic control devices (Shepard, 1972). Just as the assembly line workers

epitomize highly functionally specialized technology, the operation of automated equipment exemplifies continuous process production. Little of the work of the petroleum monitors involves manual labor since the production and handling of materials is carried out by automatically regulated controls. The work of the petroleum plant operator consists of monitoring these automatic processes. The tasks involved may include observing dials and gauges and recording readings of temperature, pressure, etc. Instead of traditional craft skill, automated production demands responsibility. As Bright has observed, automation invariably results in a larger span of operations for the worker and, thus, more responsibility. But, he also notes that automation does not necessarily raise skill requirements for workers (Bright, 1958:201).

The principle of automation and the resultant special technological design gives the workers in continuous process industries somewhat more control over their work processes. There emerges a new work rhythm at the industrial site. The petrol processing plant monitors have more free time and are less subject to the constant pressures that one finds exerted upon the assembly line workers. As Blauner (1964) points out, this lack of constant job pressures within continuous process plants is not merely a reflection of management's humanitarian concerns for the employees, but rather it is primarily due to the mode of technology. The monitoring of automated processes and automated equipment does not require constant reading, only periodical checking. Instead of the steady, unchanging pace of

the assembly line, the work pace of the petroleum operative has an irregular pace and rhythm.

This relaxed work atmosphere allows the petrol monitors to control their pace of work. For example, if a worker brings a sandwich from home and decides to eat it about 2:00, but ordinarily at 2:00 has made his rounds of meter readings, he has the choice of eating first, then reading the monitors, or read then eat. It is simply a case of more freedom for the worker to control the rhythm of the pace of work.

With automated technology, the work of the operators becomes separated from direct production. The monitor can sometimes control the rate of production by adjusting certain gauges, but only within boundaries established by engineers and not the worker himself. In this sense, the petrol worker is similar to the auto worker in his inability to control the actual quantity of his output.

Unlike the technology of the assembly line worker which controls the quantity and quality of his production, the work setting of petrol workers permits them to control the quality of their production. This is their major responsibility in contrast to assembly line workers. The adjusting of dials and monitoring of gauges determines the mixture of chemicals within the petrol being refined.

As well as allowing for responsibility and control of the quality of one's work, continuous process work does not operate under the standardized and predetermined schedule of highly functionally specialized technology. The petrol worker has more freedom in the

determination of sequences of task performance and other techniques involved in his job. This determination of one's techniques also involves greater freedom of movement. In a continuous process production center, the operator has responsibility for larger parts of the production process, thus requiring movement from building to building. Blauner (1964) questioned eleven monitors within a continuous process plant and reports that none of the operators, in contrast to the auto workers, felt that they were dominated or controlled by their technology.

Consider the worker's attitudes toward mechanical breakdowns which may occur at the job site. As Chinoy (1955) reported, the auto workers welcome a breakdown in the line because it can give them a rest from the constant movement of the line and from the repetitous job tasks. The petrol monitor, in contrast, wants to solve the problem as quickly as possible and return production to normal. In sharp contrast to the assembly line worker, the petrol monitor feels in control over the production when everything is smoothly functioning. It is only when this integrated system breaks down that the monitor loses his sense of control (Blauner, 1964).

## MEANINGLESSNESS: WHAT PURPOSE AND FUNCTION IN WORK?

Ever growing bureaucratic organizations, due to their complexity, seem to encourage feelings of alienation. As the division of labor increases in complexity with the growth and structural differentiation of organizations, an individual's role may seem to not have any

connection with those of other areas in the organization. The result is that the worker may fail to understand the total process of coordinated activities involved in production. The worker may lack a sense of purpose resulting from this inability to relate his role to other roles within the production system.

Karl Mannheim (1940) saw an inherent tension within emerging bureaucratic organizations which tends to promote meaninglessness among the workers. This tension is between what he calls "functional rationization" and "substantial rationality." Functional rationalization refers to the efficiency rationale of modern organizations. The rationale behind the technical and social organization of the work setting can be understood only by a few upper echelon supervisory personnel and engineers. Yet, a consequence of this strive for greater efficiency and rationality is a decline in "the capacity to act intelligently in a given situation on the basis of one's own insight into the interrelations of events" (Mannheim, 1940:232). According to Mannheim, this involves a decline in the individual's "substantial rationality." A worker who occupies a role in a highly subdivided factory needs only to know very limited tasks. These workers do not need to know anyone else's job and probably may not even know what operations of production occur in the next department. They do not need to know how their own small tasks fit into the total scheme of operations.

Blauner (1964) points out that meaning in one's work will depend largely on three aspects of a worker's relationship to the product,

process, and organization or work. First, one must consider the nature of the product itself. To work on a product which is unique and creative is almost meaningful in nature. It is harder for a worker to develop a sense of purpose or meaning from his contributions toward a standardized product because production of this type will involve repetitous work cycles. Secondly, it is more meaningful to work on the whole product or a large part of it than to perform standardized tasks on minute parts of the final product. This involves the scope of the product which is worked upon by the worker. Third, an employee's purpose and function increases when that employee's job makes him responsible for a larger span of the process rather than a small restricted sphere.

Many independent craftsmen of the pre-industrial period made the entire product from the first step to the finishing touches. But today meaninglessness stems from the nature of modern manufacturing because it is based upon standardization of production and division of labor within the factory that reduces the contribution that a worker makes to the final product. Today a worker on an automobile assembly line may spend all day putting on speedometer cables, never having anything to do with any other productive steps. It would theoretically seem that these alienating tendencies may be dealt with by a redesign of technical processes which would allow the worker a wider scope of operations if possible. The worker may also develop a sense of purpose within his work if he comes to embody a feeling of understanding of the organization's total process and his own contributions' relation

to the larger process of production. But as Faunce points out (1965), the worker is not likely to develop this understanding if his responsibilities and scope of operations remain limited.

The effect of the type technology within a factory is again demonstrated when one considers the possibility that meaninglessness is more intensified when the production process is carried out within large plants. In a small factory, it becomes much easier for a worker to see and understand the relationship of his labors to that of the finished product.

Walker and Guest (1952) report that assembly workers are much more subject to meaninglessness at work than workers in other industries. The auto worker on the assembly line works on a much smaller part of the total product than do workers in craft production technology systems. Due to the nature of the assembly line and the rationale of the work organization associated with it, the scope of one worker's operations have been reduced drastically.

The automobile worker's lack of meaning and function in his work does not come primarily from his inability to see a relation between his job and that of other workers. Instead, most of these men probably see a relation between their tasks and that of other workers. It is meaningless in the sense that irrespective of the fact that many automobile workers could probably do many other jobs, the central point is that they do not have to know anything more than their limited jobs in order to fulfill their roles efficiently. As Blauner (1964:107) contends:

> Meaninglessness is combatted only when the worker's job makes him responsible for a larger scope of the productive process and when for technical reasons of production, he is required to take into account the work of other employees and other departments. In assembly line plants, only the jobs of utility craftsmen. . . make such demands. The majority of the workers are unable to counteract the alienation of meaninglessness at work.

This increased sense of purpose and function in work may be a corollary development of automation or continuous process technology. This is because this form of technical system tends to bring about smaller factories, production by teams, and increased knowledge of the interrelated steps involved in the productive process.

Blauner suggests that continuous process operators are more integrated with the goals of management and find a greater sense of meaning and purpose within their work due to the nature of their technological surroundings. Just as continuous process technology can reduce feelings of powerlessness in the worker by allowing him more control over his immediate production, the organization of the workplace and the social structure stemming from it can also counteract feelings of meaninglessness. The workers in continuous process industries, thus, have more of a sense of purpose and understanding in their respective job roles.

Automation in production shifts the emphasis from the individual to the process of production (Faunce, 1965). Even though a process in which the operator is involved may not include the whole plant, it does shift an individual's perspectives from his own work tasks to include the operators in other departments. He must interpret a

broader system of operations. The worker's role becomes one of responsibility of varied, integrated processes, a change that increases the range of operations and thus reverses the trend toward increasing division of labor and greater functional specialization (Faunce, 1965).

Meaning in work may also be enhanced by the employee's freedom to move around the plant. Whereas the assembly line worker is more or less confined to his place on the line and has little opportunity to view operations in other sections of the factory, the petrol monitor's freedom of movement increases his understanding of the total production process. The petrol monitor learns how his job fits into his department as well as how his department's processes contribute to the total operations of the company.

To summarize, Blauner outlines four aspects of the technological environment of a continuous process plant that serve to promote feelings of important contribution, meaning, and purpose in work: (1) process production; (2) team work; (3) the job requirement of responsibility; and (4) the freedom of movement allowed. Of these four, in line with what has been previously proposed here one could consider the technological factor of process production and the accompanying division of labor to be the more salient.

## STATUS STRUCTURE, WORK REQUIREMENTS, AND NORMLESSNESS

In every workplace there is a continual process of accomodation between two basic forces--the requirements of the organization of work,

and the status requirements of work as seen by the people performing the work (Whitehill and Takezawa, 1968). On only rare occasions are these two sets of requirements perceived by workers as being in complete harmony or in complete conflict.

Any organization requires the structuring of people and its work roles for the achievement of its goals. The work process must be divided and distributed among workers who in turn must perform their assigned tasks. When these roles and the people who fill them are co-ordinated and integrated, their contributions can constitute some degree of achievement of organizational goals.

As judging from the organization's point of view, all the tasks in an organization are important and possibly indispensable, but not equally so. Certain tasks performed in an organization are not equal in importance due possibly to the sequence of operations, or to the effect it has upon other parts of work (Bairy, 1969). Technical difficulty differs from one task to another. These considerations are technical demands of the organization and dictate a certain accompanying status structure within an organization. When the workers within an organization fill their job roles they form a hierarchy which reflects the demands of the organization and at the same time constitutes the work place status system. In consequence, a skilled maintainance man may enjoy a higher status than a janitor in the status hierarchy of an industrial organization. In contrast, a general supervisor will enjoy more status than the skilled maintainance man. This status system performs important functions

with respect to both the organization and the individuals, and the organization will ideally endeavor to develop and maintain status systems which are conducive to the achievement of its goals (Barnard, 1946).

That status structure is an important determinant of motivation and satisfaction of workers has been demonstrated many times. For example, the theory of "social certitude" as developed by Zaleznik and others emphasizes that when a person's status factors are well established and clear to all concerned, he becomes "structured" into a group. If such factors are ambiguous and not well established, the social satisfactions of the worker will be impeded and anxiety is likely to develop (Zaleznik, et al., 1958). Each organization tends to create its own formal status systems which reflect only its own goals and objectives. If this system's assignment is perceived to be based on "who one knows" rather than one's inherent abilities, feelings of normlessness are likely to follow.

Normlessness at Work: Politics or Ability?

As mentioned earlier, a sense of normlessness is a high expectancy that socially unapproved means are necessary to achieve certain goals. According to this definition, a feeling of normlessness would be the view that one is not bound by conventional standards in the pursuit of what may be socially approved goals. Normlessness may also be considered as a product of the structure of industrial organization (Faunce, 1968). The development of the bureaucratic form of

organization has emerged along with the growth of modern science and the result has been a change from what one was absolute, sacred, and stable, to what is relative, secular, unstable, and ambiguous. Conventional norms become less compelling in their power of behavior guidance. This is related to a breakdown of the moral order which Durkheim tagged anomie. Normlessness is associated theoretically to extreme functional specialization within the division of labor because such a design creates a large number of segmented occupational specialties, among which there are few variations of skill, wage level, or status.

In an industrial workplace, feelings of normlessness may encompass feelings that one cannot advance to a more prestigious or higher paying job through one's ability. This attitude includes feelings that mobility at the job depends more upon "who one knows," or that the "politician" will advance no matter what his qualifications.

With a growth in the complexity of organizational structure, the sheer size may confront the worker as a system to beat. He may feel that his loss of dignity in performing a certain task will be fair trade for carrying home that good wrench. The worker brings with him certain qualifications such as education and years of experience. A worker may see another man promoted who may have the same, or lesser amounts, of what he feels to be worthy criteria for advancement; yet, he may not understand why he himself was not chosen. As Chinoy (1955) reported, many workers felt that advancement was based on "how well he gets along with his immediate bosses," and "how good a politican

he is,' and "whether he is a friend or relative of a high official or foreman." Interestingly, when compared on a cross industrial basis, auto workers were next only to steel workers in agreement with these types of statements.

Thus, a worker may perceive that his only chance for advancement (a socially approved and desirable goal) would be to block the chances of another worker. This plan of action is not usually considered quite kosher for a worker to carry out against a fellow employee. In other words, it may violate conventional normative standards dictating fair play. These norms no longer hold any value for this worker as guides to behavior as he feels other courses of action are necessary to achieve his desired goal (promotion). Hence, he may deliberately interfere with another's work in order to lower its quality, or he may spread rumors about the qualifications of his rival, or he may revert to what is usually termed "ass kissing," which is a form of playing "politician at work."

Large Bureaucratic Structure and Normlessness

As a social and industrial organization, automobile plants are examples of bureaucracy in some of its more developed forms. Blauner (1964) elucidated four aspects of the assembly line that are divisive to integrative forces: (1) large centralized factories; (2) a compressed wage and skill distribution; (3) infrequent advancement opportunities; and (4) few close kint work groups.

He continues to point out that the assembly of auto requires

large plants. This is something Marx emphasized: as large factories grow ever larger, the social distance between the workers and management grows, thus reducing the loyalty of the work forces to management and promoting alienation and class consciousness (Marx, 1962).

This sheer complexity and size which confronts the worker may affect the worker's sense of identification with the company's management to the extent that such identification is considerably less than that of other types of factory workers. Heron (1948) claims that assembly line production results in the greatest cleavage between workers and management. This study shows only about thirty percent (30%) of the auto workers agree that management takes a real interest in employees. This was the lowest proportion among eight industries studied. Walker and Guest discovered that few auto assembly line workers are "conscious of being members of any identificable social group" (1952:79).

A Stable Status Structure: Legitimate Mobility

Georg Simmel wrote of the "inevitably disproportionate distribution of qualifications and positions," which means that social organization involves a "contradiction between the just claims to a superordinate position and the technical impossibility of satisfying this claim. . ." (Simmel, 1950:300-3). There are many who can qualify for a post, there just aren't enough foreman posts to be filled. As Blauner (1964) believes, the highly differentiated hierarchy within a continuous

process plant may be a partial solution to what he calls "this problem of the inevitable injustice of all social system." This may be another factor which influences social integration in continuous process plants. An elaborate system of inferior and superior ranks tend to support the normative structure of an organization because those in higher positions have internalized the goals of the organization. If these positions are attainable by a lower level worker, their existence also serves to motivate them to accept the goals of the organization and act according to its norm (Blau, 1970).

With clearly defined status hierarchies and rules for promotion, the worker is not as likely to sense a condition of normlessness in that promotion would be based on personality and not ability. This also serves to integrate a worker further with the goals of an organization.

## SELF ESTRANGEMENT: THE HEART OF ALIENATED LABOR?

Self estrangement refers to the possibility that a worker may become alienated from his inner self through the activity of his work. This lack of involvement may occur particularly when a worker lacks control over the work process, and lacks a sense of connection and identification with the organization. When a worker performs duties that do not challenge his intellectual capacities, it is likely to be difficult to develop some sense of being engrossed with the job task. This means that the work becomes primarily an instrument, a means

toward attaining some future rewards rather than an end in itself. Marx (1964:263) expressed this theme in his early works on alienation:

> In his work, (the worker) does not affirm himself, does not feel content but unhappy, does not develop freely his physical and mental energy but mortifies his body and ruins him mind. The worker therefore only feels himself outside his work, and in his work feels outside himself. He is at home when he is not working, and when he is working he is not at home. His labor is therefore not voluntary, but co-erced; it is forced labor. It is therefore not the satisfaction of a need; it is merely a means to satisfy needs external to it. Its alien character emerges clearly in the fact that as soon as no physical or other compulsion exists, labor is shunned like the plague. External labor, labor in which man alienates himself, is a labor, or self-sacrifice, of mortification. . .

Here we find the idea that alienated activity is not free or spontaneous activity, but is compulsive labor driven by necessity. Non-alienated labor involves immersion in the present and less emphasis upon considerations of the future. As mentioned earlier, self estrangement is experienced as a heightened awareness of time. This consists of a split between one's involvement with future considerations and the activity one may be involved in at the present. In non-aliented activities they are largely extrinsic to the activity itself. The activity itself has become a means to an end.

Since self estranged labor is a means rather than an end in itself, the satisfaction is in the future and not the present. One has a feeling of detachment and non-involvement. The man who rivets fenders on an assembly line may think all day about the "get together" that night or next week at Kelsey's Bar. As Chinoy (1955:82) reported, the meaning of the job for the automobile worker was not in the

activity itself, but that reward which the pay check (itself a future reward) could bring closer to realization.

The worker not involved in his work activity has a heightened awareness of time. "Clock watching" may become a game to "kill time" for the worker. Fred Blum (1955) reported such an over concern with time as one of the central characteristics of alienation in a meat packing plant.

Thus, a worker who lacks control over his immediate work process, i.e., (1) the pace of work; (2) the quantity of production; (3) the quality of production; and (4) the choice of tools and techniques, will be more likely to remain uninvolved with his work activity. The worker's involvement can be heightened when he understands the purpose of the job and can clearly connect the end product and goals of the organization with his role and function (Chinoy, 1955:82).

One of the products of an industrial society is that traditional important loci of loyalties such as the family are broken down. In their place, occupation has become more of an important evaluative standard of social worth. This is because occupation, more than other attributes, influences the income and style of life that a person may lead. Occupational identity has become a major component of one's identity, much more today than in the past it seems. It seems to follow that self-estranged work would tend to threaten a worker's positive evaluation of his self concept because it helps to create a damaging rather than a positive occupational identity of an affirmative nature. When work does not provide the opportunity for

control or creativity, or is not challenging; it will seemingly only serve to intensify this problem of negative occupational identity. Such labor cannot contribute much to the worker's sense of self respect. Alienated work, or work without freedom, control, or responsibility, will only confirm the worker's feelings that he is a"nothing".

For example, a craftsman worker is "involved" with his work and product because he has to organize certain raw materials into an integrated whole, or integrate processes in order to solve some problem that he faces. It has been the experience of this student through observations of several different jobs that skilled maintainance men within a factory were the most satisfied workers. In one particular factory, a bitter union battle was being waged, yet these skilled workers were hardly concerned with the alleged injustices perpetrated against the workers there. These men were masters over their choice of tools to repair a hydraulic pump on the conveyor system, or any task they might have, and they can usually work at their own pace. Their work requires an ability and responsibility to be able to integrate processes involved in production. The writer's experience in working with these men was one of "involvement." There was no concern with clock watching.

Self Estrangement and the Automobile Worker

Consider the assembly line worker who has to become immersed

in his work because of the external pressures exerted on him by the demands of the ever moving belt. This is another alienating feature of many assembly line jobs in that they permit neither challenge nor detachment (Blauner, 1964).

This estranged nature of work which has been called an <u>instrumental attitude</u> by Blauner is summed by Chinoy (1955:85) as such:

> The features of work in mass production industry which alienate the worker from his labor and from himself lead to deprivations which are not easily verbalized. Yet they show themselves in various ways...'the only reason a man works is to make a living'; 'sometimes you feel like jamming things up in the machine and saying good-bye to it'; 'the things I like best about my job are quitting time, pay day, days off, and vacation'; 'there is no interest in a job in the shop'; and 'a job is a job'.

In the course of relating the every day experiences of assembly line work to the different so called forms of alienation, it has been said that these workers exercise little control over their environment. It was also proposed that such assembly line workers rarely find purpose or meaning in their functions. Since this type technology produces more pronounced objective conditions of alienation, one would expect a high degree of subjective alienation (isolation and/or self estrangement) to follow.

As mentioned in an earlier section, the craftsman's personal involvement is based on the technical necessity to organize the raw materials into an integrated whole. In contrast, the auto worker's involvement in the immediate situation is based more on

the external pressures exerted by the assembly line.

Automobile workers were more likely to find their jobs dull and monotonous than workers in any other industry (Walker and Guest, 1952). These researchers found that the repetetive nature of the work was one of the job's most hated features, as two comments here illustrate:

> The job is sickening. . .day in and day out plugging in ignition wires. . .I get through with one motor, turn around and there is another motor staring me in the face.

and

> There is nothing more discouraging than having a barrel beside you with 10,000 bolts in it and using them all up. Then you get another barrel with another 10,000 bolts, and you know that every one of those 10,000 bolts has to be picked up and put in exactly the same place as the last 10,000," (Walker and Guest,1952:53-55).

Finally, and essential to self-estrangement, is the lack of intrinsic features concerning work. The job encourages greater feelings of being just an instrument and not something to enjoy. When a man's work is generally unrewaeding in itself and the status of the occupation is low, that job will not contribute much to the worker's sense of worth and self-esteem (Shepard, 1972a).

Blauner (1964:122) reports a much greater frequency of dissatisfaction with alienated work among auto workers than among factory craft workers and continuous process workers:

> The automobile worker's job dissatisfaction is a reflection of his independence and dignity. . . the auto worker quits his job more often than other workers. . .on the job he resorts to illi-gitimate means of asserting some control over his immediate work process. And he may even express contempt for the dominating technology and the company in occasional acts of industrial sabotage.

Automation and Involvement in Work

Earlier in the paper, it was argued that work which involves control, meaning, and expression of ability may be considered to be relatively free. Work that allows this control, promotes integration, and enhances meaning, is work that tends to be self actualizing and not self-estranged.

Basic to involvement in one's work is an immersion without thought about time. As mentioned earlier, fundamental to an alienated activity is a concern with the time spent in the task's completion. An increased awareness of time spent in the task marks the alienated worker. Instead of being so totally involved in the present, an alienated worker is preoccupied with a concern for the future when the work is over.

In a continuous process industry, the requirements of the job produces a new relation of the worker to time immersion by changing his work rhythm. The rhythm of work being of an erratic nature during periods of crisis creates situations that at times demand the immersion of the individual into his work, and times when he has nothing to do. During times of crisis the problem solving faculties

of the worker are called upon in order to find what may be causing problems. The monitor must call into action his knowledge of the other processes which integrate with his. Blauner found that although the monitors preferred smooth operations, they still agreed that the unpredictable occurrence of problems added an element of excitement and challenge to their job. The majority of these monitors felt that their chief source of accomplishment in work was diagnosing the problem and restoring the process to stability again (Blauner, 1964). The writer of this paper has found that maintenance workers find a great deal of satisfaction in so called "trouble shooting" tasks. Hence, these crisis situations permit complete absorption in the present, breaking what could be a mildy monotonous routine.

Still, the work rhythm of the monitor includes long periods of time with nothing to do. This may serve to intensify monotony, but the workers are free to read, converse among themselves, or experiment slightly with the controls. Continuous process technology thus contains elements of work which contribute to greater interest and involvement as well as those which tend to promote monotony. But due to the nature of the industry, continuous process workers also share the opportunity to further develop their skills at work. The workers are involved in training classes which provide an opportunity to increase one's knowledge of his job that is not even needed by the line workers. New equipment and processes are frequently introduced and the job is one of constant learning and not the easily developed "knack" of the assembly line worker.

Thus the continuous process monitor is involved in his work in ways not available to the assembly line worker. With work that can be stimulating to one's intelligence, allows freedom of physical movement, and enhances knowledge of the various interrelationships; it is expected that the workers will be more satisfied with their work and more integrated with the norms and values of the organization. This type of work environment then should also reduce factors that promote feelings of self estrangement in one's work. With more involvement in work, feelings of isolation should be reduced.

## ISOLATION: THE MINIMIZATION OF SELF INVESTMENT

Isolation, as defined by Seeman, refers to alienation from the total society. Yet one may view this in terms of other levels of interaction as well. The worker who feels powerless and sees the place of work as holding no meaning is unlikely to be concerned with the goals of the organization. If he does not concern himself with the goals of the organization, he is isolated or alienated from that organization.

Work in today's industrial plant involves membership in an industrial community. Membership in such a community involves some degrees of committment to one's work and loyalty to organizational ideas. Isolation, in contrast, implies a sense of "not belonging" to the work situation, and that the worker is unable to identify, or is not interested in identifying with the organization and its goals.

As a community, the worksite has its own structure of norms and

rules which serve to guide the behavior of the individual members. As any social system, industrial organizations are subject to varying degrees of normative integration. For the purposes of this paper, organizations are said to be normatively integrated when there is a consensus between the labor force and management on regulation of behavior, expectations of rewards, standards of fair play and justice, and clearly defined procedures for evaluating possible promotion. Many of these matters affect the worker's sense of justice and equity, thus affecting his alienation from, or integration with, the goals and values of the organization.

Blauner (1964) and Faunce (1968) have argued that self estrangement and isolation are really one and the same, both being general conditions of alienation which occur as a result of powerlessness, meaninglessness, and normlessness. Within this context, if workers do not share the goals or values of the people with whom they associate and work with on a daily basis, then a worker is alienated from his "self" (a social entity) because of this minimal effort of investing the "self" into that social group, as well as being alienated or isolated from the others at work. If a worker feels compelled to maintain membership in an organization whose goals he does not share, then would not that activity be perceived as only a means to some other ends? The idea that we may be isolated from others and subsequently alienated from our "selves" is one of the central aspects of alienation as defined above and will be elaborated upon in the next chapter.

The implications of bureaucratic organization for isolation or integration are somewhat mixed (Kohn, 1967). One side of the argument is that bureaucracy, with its norms of impersonality and emphasis on formal procedures, may create feelings of distance between workers and management. Also, the principle of rationality and efficiency in the utilization of resources for maximation of organization gains will strengthen the tendency for management to view employees as "labor," a mere means to the ends of profit and growth. Others argue that despite these criticisms of bureaucratic organization, bureaucracy may positively function to enhance the integration of its members through its emphasis on universalistic standards of justice and "fair treatment."

Integration and the Assembly Line Worker

There is a distinct lack of integration of the auto worker into the organization due to the extreme division of labor within the production process. First, the conditions of work on an assembly line restrict social contacts. The level of noise may prohibit communication. The unchanging speed of the conveyor belt requires constant attention in order for the worker to keep up with his work. Limited physical mobility is also a hinderance to social interactions. The nature of the technical environment of the assembly line does not require functionally independent work groups and actually inhibits the formation of close knit social units. In Blauner's words, "on an assembly line a worker may be able to talk with the men on both

sides and those across from his work station, but each man is in contact with a different set of workers" (Blauner, 1964:114; also see Walker and Guest, 1952:chapter 5).

Conveyor belt technology also deters social interaction between the worker and supervisor. The fixed nature of the line and the extreme standardization of tasks reduce the need for interaction or exchange of information between the worker and his supervisor. The actual supervision, as mentioned earlier, is to a large extent built into the technology. The day-to-day contacts between worker and supervisor usually take the form of downward directives rather than exchanges of information. Also, the auto worker has virtually no contact with higher level personnel in the organization (Walker and Guest, 1952). This low degree of interaction between worker and supervisor in the auto industry contributes to the worker's sense of an impersonal, unintegrated relationship to the organization (Walker and Guest, 1952).

A third area of auto assembly line production which is deterrent to integration with the organization is the proportional costs of labor as compared to total organizational expenditures (Fullan, 1970). Mass production depends upon a large labor force. Consequently, wages and other benefits to employees are very important factors to be considered by the management. Since the U.A.W. has been an effective bargaining agent for worker interests, labor relations with management have been more of a power struggle than in the oil industry. Within such an atmosphere, workers are less likely to feel a sense of integration with the organization (Blauner, 1964).

The status structure, in particular the "massified" wage and skill distribution in the auto industry, is a final element which contributes to the worker's lack of identification with the organization (Blauner, 1964). The extreme subdivision of labor and the standardization of tasks in assembly line production have resulted in low wage and skill distribution among workers. The maximum wage spread, including virtually all production jobs, is only about 15 cents an hour (Fullan, 1970). Thus there are few better jobs to aspire to, with no natural progression from one job to another as in the petrol processing plant. This relatively undifferentiated status structure of mass production systems is another aspect of the "depersonalization" and lack of social and cultural integration of the assembly line worker.

Integration and involvement in Continuous Process Industrial Sites

By way of contrast, the technology of continuous process production requires an integrated system because the production process itself involves the continuous flow of materials, not a series of separate operations (Faunce, 1965). This integration of the process of production has important consequences for the integration of the workers with the social structure of the organization.

First, continuous process production increases the interdependence of work activities. The tremendous costs of breakdowns and errors require a high degree of individual and collective responsibility (Mann and Hoffman, 1960). Moreover, automated plants tend to be

based on small team production (Blauner, 1964). This collective responsibility and small team production foster the social cohesion of the work group.

A second characteristic of continuous process industry is that the ratio of managers and supervisors to non-supervisory personnel is lower than in other types of production (Woodward, 1965). There is an increase in interaction and communication between supervisory and non-supervisory personnel. Blauner cites the need for a rapid exchange of information which increases contact and communication; and also a need for close operation at all levels. For Blauner, automated production calls for "consultation with supervisors, engineers, and other technical specialists. . . which. . . becomes a regular natural part of the job duties" (Blauner, 1964:147-8). Mann and Hoffman found an "increase in satisfaction with the amount of communication from the top of the plant organization to non-supervisory employees" (Mann and Hoffman, 1960:64). In short, the increase in interaction and exchange of information between supervisory and non-supervisory levels is another factor which contributes to the integration of the worker in the automated system.

A third factor which affects the integration of the worker in continuous process organization is the status structure, in particular, the career orientation of the worker (Blauner, 1964). The typical production worker in the oil refinery enters the organization as a general laborer, and then the expectation is that he will progressively move up the mobility ladder. On-the-job training is a standard

company sponsored program for workers in the oil industry. This institutionalization of mobility increases the integration of the worker in the company. The technology, the work organization, and the social structure of a continuous process plant allow the worker to be integrated into the company through his being integrated into his work group.

## Chapter V

## ALIENATION AS A PROCESS OF STATUS EVALUATION

Some authors (Browning, et. al., 1961; Shepard, 1972a) view alienation as a process and not simply five or six loosely interrelated but independent phenomena. As Aiken and Hage (1966) point out, alienation is not some free form phenomena which is free of some referent conditions. Many researchers agree with them in that alienation may occur as a result of some objective condition(s). Yet, they do so in terms of different referents from which man is said to be alienated. Man is said to be alienated from society (Nettler, 1957; Seeman, 1959; Dean, 1961; Fromm, 1961); from specific organizational settings (Clark, 1959; Aiken and Hage, 1966); or man may be alienated from work (Blauner, 1964; Faunce, 1965; Shepard, 1972a). This paper is concerned with job alienation from the work situation. As mentioned earlier, Faunce and Shepard treat alienation as being from a status system. This direction of thought will be followed more extensively in this chapter.

Alienation means the social psychological separation of a subject from some referent, as a result of certain conditions (see Petravic, 1967; also, Schact, 1970). This definition seems to be congruent with Aiken and Hage's charge that alienation cannot be conceptualized without some referent from which to measure alienation.

Clark (1959) was the first to relate alienation to an organizational setting. He argued that to measure alienation from a larger

global referent is not as meaningful as that of a specifiable subsystem because, "when viewed from the standpoint of a single organization, the concept of alienation can be examined in an environment about which we are more adequately informed than with the whole of society" (Clark, 1959).

Also, many studies show that persons may be alienated from one aspect of their social life and integrated into others (Hajda, 1961; Neal and Rettig, 1963; Aiken and Hage, 1966). Persons evaluate themselves differently in terms of different status criteria. To be alienated from one aspect of social life need not mean from all aspects. A person's self evaluation is a selective process in terms of what is important to the individual and not a random process. Those social activities (including work) that allow one to see oneself in a favorable light are more likely to be used as referents in self evaluation. It would seem that people are more apt to evaluate themselves in terms of social situations that allow them to confirm their worth (Shepard, 1972). As Shepard and Faunce point out, the worksite is conceived of as being a status system which a person will either want to be evaluated according to its standards, or the person may rather be evaluated for his social worth in accordance to other status criteria in his social life.

Browning (1961) was the first to raise the possibility that alienation may be viewed as a process. For Browning, the process of alienation consists of three stages. The first stage is a "predisposing stage" which involves successive stages of powerlessness,

meaninglessness, and normlessness. The next stage involves the rejection of certain cultural norms, or "cultural disaffection." The final stage is "social isolation." This stage includes several modes of adaptation, one of which is "self estrangement." Similarly, Faunce (1968) and Shepard (1972a) also view powerlessness, meaninglessness, and normlessness as factors associated with isolation and self estrangement.

For Faunce (as well as Blauner), self estrangement and isolation from organizational norms and goals are merely "two sides of the same coin" (Faunce, 1968). Faunce suggests that isolation refers not only to alienation from the society as a whole (as in the context in which Seeman and Nettler used the term), but also alienation from a specific organization or social group to which one belongs. Faunce points out that every social group is a status group, or a "hierarchy of persons based upon the extent to which they are accorded social honor" (1968: 113). High placement on a status structure means that one has been evaluated favorably by others and has acquired certain status recognition. Since one's status recognition actually depends upon evaluation by others in the status structure, it thus gives social support for positive self evaluation. If we assume that for most people, low esteem is something to be avoided, the lack of recognition and the accompanying lack of social support for positive self evaluation will tend to produce social psychological withdrawal of self esteem from the specified status structure. This failure to achieve status recognition and positive self esteem feedback leads to

the abandonment of committment to and participation in that status structure (Shepard, 1972). The worker who has feelings of powerlessness, meaninglessness, and normlessness in the work place is unlikely to be concerned with the goals of the work organization and is therefore isolated or alienated from it. Similarly, Faunce (1968:94) defines alienation as a "disjunction between self esteem maintainance and status assignment systems." He continues: ". . . we are alienated from others or from any organization in which we are a member to the extent that the criteria we use to evaluate ourselves are different from the criteria used by others in evaluating us."

According to Faunce, a person is isolated in that they have assigned a low reward value to goals or beliefs that are typically highly valued in a social group or organization whose goals the worker does not share. That activity will be preceived as a means to another end. If one does not share the goals and values of others with whom they associate, that person is not only alienated from the others, but also from one's "self" to the extent that they are "minimizing their investment of self" in that situation. (Faunce, 1968). Since the idea that one may be isolated from others and subsequently alienated from one's self is central to the conception of alienation as used in this study, some elaboration is needed here.

First, as mentioned earlier, people are not alienated from all aspects of their social world. Discussions of alienation by Marx, Durkheim, Fromm, and others have emphasized alienation from other people (social isolation), alienation from norms and values (cultural

isolation), or alienation from self (self estrangement).

But what constitutes a social "self"? The self may be described as an organized set of ideas that people hold about themselves. Humans have the quality of being able to "objectify" themselves and thus have attitudes, beliefs, and opinions about themselves. As in Cooley's "looking glass self," these attitudes and beliefs about one's self come from the perception of how others perceive us.

But, as people move from one social situation to another, different sets of evaluative criteria are used by others as well as by one's self. Different criteria are used to determine if one is a "good father" than are used to evaluate one's worth as, for example, an electrician. As mentioned earlier, the maintainance of one's self esteem is a selective process in that people choose from among their different roles, certain ones in which we need to succeed in order to think well of ourselves. This selection of one set of roles for self evaluation and not another implies that people select differing value systems with which to integrate themselves.

People do not equally value all the social roles into which they step. In those roles where one does evaluate one's self, the individual who is trying to conjecture a favorable image will look to find others whose definition of achievement are the same. People seek out those social situations which confirm their worth if they are desirous of a positive self image.

The work place as an organization has a status structure which may be produced by unequal levels of skill, and the hierarchy of authority as mentioned earlier. Status is assigned by evaluation

according to certain criteria which reflect the values and goals of the organization. These values that are used to assign statuses within organizations reflect the major concerns of that organization. The acquisition of status is reward for certain achievements as evaluated according to the major values of the organization.

If the status criteria of the organization are the same that a worker uses to evaluate himself in a favorable image, he would have a committment to the values for which these criteria are based, namely, those of the organization. Alienation thus conceptualized, means the opposite of committment to, or identification with, those values of the organization in which a worker may be a participant.

For example, a worker on the assembly line who has low occupational status and sees little opportunity for advancement, may adjust to this situation by evaluating himself in exclusively non-work related terms. But when he is evaluated in terms of his own work role by others in the organization, he then is considered as alienated from that organization. Faunce's conception of alienation as outlined above is similar to Seeman's definition of isolation, but is different in certain important aspects. First, a person is seen as being alienated from a specifiable organization and not from all of society. Second, he shows that the reason norms or values may have low reward value is because these goals or values hold little importance to the worker for his self assessment. With such a definition of isolation, the relationship of self estrangement to isolation and their respective meanings may be drawn as follows. Those people who remain in situations

in which the criteria used for assigning status are different from the criteria they use in positive self esteem maintainance will tend to reduce their expenditures or involvement and will also tend to maximize their involvement in activities external to the work situation. The sense that such a person is alienated from the "self" in this situation has no reflection upon what he thinks of himself. He is immersed in future dimensions of time, or those times and situations he is not actually involved in at the time. This writer had these sentiments expressed to him by a worker as such: "that song reminds me of when I lived in Panama City. I guess it does so because that was a different time and space and I'm not too 'into' the present time, space, or place, so that is as good of a place to be as any, I guess." As Faunce contends, within such a situation, alienation from others necessarily implies alienation from the "self" as long as one is involved in interaction with the organization from which one may be isolated. If a worker is not concerned with his placement on the workplace status structure, then he is isolated from it in that he assigns a low reward value to certain goals and beliefs that are typically highly valued within the work organization. As Faunce (1968:116) states,

> Isolation necessarily implies self estrangement because it means that the person is not seeking recognition for what is generally regarded as an achievement by others within the social unit. . . Lack of concern with status within a social unit is therefore evidence that we are not evaluating ourselves in terms of the criteria relevant to that

> social unit. . .During the time we participate in an activity that has no bearing upon our self-esteem we are self estranged. Self estrangement and isolation are simply opposite sides of the same coin and are the two major components of alienation.

Thus, it is contended that the failure to achieve status recognition within a status system will promote alienation from that status structure. In this paper, this withdrawal is measured by the operationalized concepts of isolation from organizational goals and self evaluative involvement. Self evaluative involvement refers to the degree to which a person tests their self esteem in terms of the status criteria of a particular social unit of which they are a member. It is operationalized to test whether work or non-work related activity is the most important in one's self evaluation. Persons characterized by low self evaluative involvement in work evaluate themselves primarily in terms of extra-work criteria.

Isolation from organizational goals is operationalized by items which measure a worker's identification with stated goals of the company and the reward value he pleases to place upon the goals of the organization. Isolated workers will show little concern for the quality of the products, and little concern for the company's reputation in the community.

Chapter VI

# STATEMENT OF HYPOTHESES, METHODOLOGY, SCALES, AND DATA ANALYSIS

The afore mentioned theoretical schema may be presented as in the following model:

| Technology | Social Psychological Experiences Promoting Alienation | Dimensions of Alienation |
|---|---|---|
| Extreme functional differentiation. | Powerlessness<br>Meaninglessness<br>Normlessness | Low self evaluative involvement, and goal isolation. |

This model shows that the degree of functional differentiation (division of labor) is the independent variable. Self evaluative involvement and isolation from organizational goals are the dependent variables, while powerlessness, meaninglessness, and normlessness are the intervening variables. In other words, the relationship between functional differentiation and alienation is mediated through certain social psychological experiences (some of which are powerlessness, meaninglessness, and normlessness). It is expected that powerlessness, meaninglessness, and normlessness will intervene the original relationship between functional differentiation and the two dimensions of alienation (self evaluative involvement and goal isolation).

## STATEMENT OF HYPOTHESES

From this model the following hypotheses are presented:

1. Powerlessness, meaninglessness, and normlessness are positively related to each other.

   1-a. Powerlessness is positively related to meaninglessness.

   1-b. Powerlessness is positively related to normlessness.

   1-c. Meaninglessness is positively related to normlessness.

2. Powerlessness, meaninglessness, and normlessness are related to two dimensions of alienation, self evaluative involvement and goal isolation.

   2-a. Powerlessness is negatively related to self evaluative involvement in work.

   2-b. Powerlessness is positively related to isolation from organizational goals.

   2-c. Meaninglessness is negatively related to self evaluative involvement in work.

   2-d. Meaninglessness is positively related to isolation from organizational goals.

   2-e. Normlessness is negatively related to self evaluative involvement in work.

   2-f. Normlessness is positively related to isolation from organizational goals.

3. Two dimensions of alienation, goal isolation and self evaluative involvement are positively related to each other.

4. Functional differentiation is positively related to social psychological states of powerlessness, meaninglessness, and normlessness.

4-a. Powerlessness is higher among workers in mechanized assembly line technology (high functional differentiation) than among those of craft or automated technologies (low functional differentiation).

4-b. Meaninglessness is higher among workers in mechanized assembly line technology than among those of craft or automated technologies.

4-c. Normlessness is higher among workers in mechanized assembly line technology than among those of craft or automated technologies.

5. Functional differentiation is related to two dimensions of alienation, self evaluative involvement and goal isolation.

5-a. Self evaluative involvement is lower in mechanized assembly line technology than in automated or craft technologies.

5-b. Goal isolation is higher in mechanized assembly line technologies than in automated or craft technologies.

## SAMPLE AND METHODOLOGY

For the present study*, a sample of 294 workers were selected in Seoul, South Korea from an unnamed automobile assembly plant and from the monitors at an oil refinery. Considering the problems of expenses involved and a limited time schedule, self administering questionnaires were distributed to groups of 10 to 15 workers under the supervision of a Korean researcher who visited South Korea for the purpose of the data collection. By this method, a reasonable amount of control over the respondents by the researcher was insured with a minimum expense involved. The translated version of the questionnaire was read and validated by five South Korean scholars involving sociologists.

Of the 294 respondents; 102 were drawn from the automobile factory assembly line workers to represent mechanized production systems. There were about 1500 workers employed there. From this factory was also drawn 92 skilled maintainance workers to represent craft production workers. The other 98 workers were drawn from an oil refinery, which employs about 1000 workers, to represent automated or continuous process production systems.

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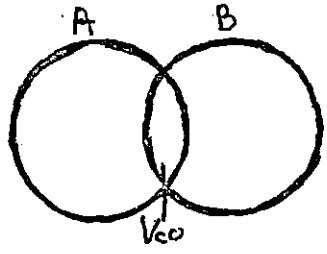
* The sample for the American study by Shepard consisted of 305 blue workers who were drawn from two industries; an oil refinery, and an automobile factory, containing workers in craft and mechanized production systems. Of these 305 interviewed workers, 92 were assemblers from the automobile plant, and 117 were maintainance journeymen selected from the automobile factory for the craft machine-to-man relationship.

## SCALES

The scales used in this study are essentially those used by Shepard in his study. But, factor analysis was used to delete unrelated items from Shepard's scale for powerlessness, meaninglessness, normlessness, self evaluative involvement, and goal isolation scales. Factor analysis is based on the assumption that a set of intercorrelated variables have common factors running through them and that the scores of an individual can be represented in terms of these reference factors. A factor is a construct, a hypothetical entity that is assumed to underlie a set of items. Factor analysis then, is a method for determining certain underlying variables, i.e., factors, from sets of items or measures. In other words, it is a method for extracting "common factor variances" from sets of measures.

Common factor variance is the variance of a measure that is shared with other measures. In other words, it is the variance that two or more measures have in common. For example, if a test measures skills that other tests measure, we have a common factor variance. Figure 1 below represents a visual model of what a common factor variance is. The A and B circles represent the variances of tests A and B. The intersection of A and B is the relation of the two tests, i.e., the common factor variances (designated by Vco).

THE VARIANCES OF TEST A AND B




Factor analysis is based on measures of association, usually correlation coefficients. That is, anything that introduces correlation between variables, creates factors. The major goal of factor analysis is to determine the coefficients that relate the observed values to the common factors.

By such use of factor analysis, it was determined that the reliability of the scales was increased through deletion of two items from the powerlessness scale, two from the meaninglessness scale, one from the normlessness scale, and one from the goal isolation scale . The scales used in this study are as follows:

Powerlessness at Work Scale Items

1. To what extent can you vary the steps involved in doing your job?
2. To what extent can you move from your immediate working area during work hours?
3. To what extent can you control how much work you produce?
4. To what extent can you work ahead and take a short break during work hours?
5. To what extent can you help decide on methods and procedures used in your job?
6. To what extent can you increase or decrease the speed at which you work?

Meaninglessness at Work Scale Items

1. To what extent do you know how your job fits into the total work organization?
2. To what extent do you know how your work contributes to finished company products?
3. To what extent does management give workers enough information about what is going on in the company?
4. To what extent do you know how your job fits into the work of other departments?
5. To what extent are you learning a great deal about the company while you are doing your job?
6. To what extent do you know how your work affects the job of others you work with?

Normlessness at Work Scale Items

1. To what extent do you feel that people who get ahead in the company deserve it?
2. To what extent do you feel that pull and connection get a person ahead in the company?
3. To what extent do you feel that to get ahead in the company you would have to become a "politician"?
4. To what extent do you feel that people who get ahead in the company are usually "just lucky"?

Self Evaluative Involvement at Work Scale Items

1. I would like people to judge me for the most part by what I spend my money on rather than by how I make my money.
2. Success in the things I do away from the job are more important to my opinion of myself than success in my work career.
3. To me, my work is only a small part of who I am.
4. The best description of who I am would be based on the kind of job I hold.

Isolation from Organizational Goals Scale Items

1. The reputation of this company in the community is of little importance to me.

2. The successful competition of this company is of little importance to me.

3. Cutting the costs of this company's products is of little importance to me.

4. The only reason this company's profits are important to me is that they affect the amount of money I make.

5. The quality of this company's products is not important to me.

Each item for the Powerlessness, Meaninglessness, and Normlessness scales could be answered by choosing from 1 (minimum) to 7 (maximum) agreement. All scales were summed and correlated with the totals of the other scales.

The possible responses for the Self Evaluative Involvement and Goal Isolation scale items ranged from 1 for Strongly Agree, 2 for Agree, 3 for Undecided, 4 for Disagree, and 5 for Strongly Disagree.

## DATA ANALYSIS

A fairly simple model has been employed in this study involving the degree of functional specialization as an independent variable, dimensions of alienation as dependent variables, and certain social-psychological conditions of alienation (powerlessness, meaninglessness, and normlessness) as intervening variables. However, the writer is not aware of a simple statistical method for testing this model since there are several intervening variables and more than one dependent variable. Hence, the model has been broken down into a number of hypotheses. By testing these hypotheses individually, an inference concerning the acceptability of the general model can be made.

As for the method of statistical analysis, correlational analysis (Pearson's r) was used. Even though it is recognized that the data were ordinal in nature, it was decided to employ this statistic. While this does violate the assumption that correlational analysis requires interval data, it nevertheless was considered useful to utilize this statistical test in this case to determine the effects of functional differentiation on feelings of powerlessness, meaninglessness, and normlessness, and, mediated through these feelings, its effect on two dimensions of alienation, self evaluative involvement and goal isolation. Since correlational analysis was also employed by Shepard in earlier studies, it was deemed worthwhile to do so in this study also.

## Chapter VII

## FINDINGS AND DATA PRESENTATION

Table I. Zero Order Correlations (r) Among Powerlessness, Meaninglessness, and Normlessness Scales.

| | Meaninglessness | Normlessness |
|---|---|---|
| Powerlessness | .326* | .104 |
| Meaninglessness | | .030 |

*Significant at .148 at .01 level for N=294.

As table I indicates, while powerlessness, meaninglessness, and normlessness are not interrelated, powerlessness and meaninglessness are strongly correlated (r=.326). Further, powerlessness is more strongly correlated with normlessness at work (r=.104) than is meaninglessness to normlessness (r=.030).

In table II the significant relationships between powerlessness and meaninglessness (r=.326) remain for all three types of functional differentiation, with r=.277 for mechanized workers, r=.264 for craft workers, and r=.366 for automated workers. Thus, we see that powerlessness is more strongly correlated with meaninglessness for automated workers than for workers in the other technological settings.

Table II. Correlations Among Powerlessness, Meaninglessness, and Normlessness Scales by Functional Differentiation.

| | meaninglessness | | | | normlessness | | | |
|---|---|---|---|---|---|---|---|---|
| | orig. r | mech. | craft | auto. | orig. r | mech. | craft | auto. |
| powerlessness | .326* | .277* | .264* | .366* | .104 | .236 | .085 | .113 |
| meaninglessness | | | | | .030 | .020 | .233 | -.023 |
| n= | 294 | 104 | 98 | 92 | 294 | 104 | 98 | 92 |

*for n=294, an r of 1.48 if significant for the .001 sign. level.
for n=104, an r of 2.57 is significant for the .001 sign. level.
for n=98, an r of 2.57 is significant for the .001 sign. level.
for n=92, an r of 2.67 is significant for the .001 sign. level.

Table II notes that the relationship between powerlessness and normlessness remains insignificant for all three types of technology. But, for mechanized workers, there is a relationship approaching significance (r=.236). Here a significant correlation is attained with the r=.254. This seems to indicate that the relationship between powerlessness and normlessness is much more salient for mechanical workers than for the other two types. Table II further indicates that the correlation between powerlessness and normlessness for automated workers (r=.113) is stronger than for craft workers (r=.085).

As indicated in Table II, the relationship between meaninglessness and normlessness remains insignificant for all three modes of technology. But for craft workers, the relationship (r=.233), though not significant, is substantially higher than those of the other two modes of production. Could it be that lack of meaning gives rise to feelings of normlessness for craft workers? (This r of .233 approached significance for craft workers since significant relations are reached at r=.254 for an n=98).

Table III. Correlations Among Powerlessness, Meaninglessness, Normlessness and Dimensions of Alienation Scales.

| | Self Evaluative Involvement | Goal Isolation |
|---|---|---|
| Powerlessness | -.062 | -.010 |
| Meaninglessness | -.116 | .017 |
| Normlessness | .065 | .064 |

N=294, for this size N, a relationship is significant at .148 at the .01 significance level.

In table III, it can be seen that none of the intervening variables are significantly related to the two dimensions of alienation, self evaluative involvement and goal isolation. The theoretical framework, however, hypothesized that each of the independent variables would be correlated with self evaluative involvement. Although powerlessness (r= -.062) and meaninglessness (r=.-.116) are not significantly correlated with self evaluative involvement, the relationship between meaninglessness and self evaluative involvement is approaching significance, suggesting that meaninglessness might be more related to one's involvement in the status criteria of work than either powerlessness or normlessness.

The data in table III also suggest that neither powerlessness, meaninglessness, nor normlessness were positively correlated with goal isolation as was hypothesized. Powerlessness has, in fact, a slightly negative correlation with goal isolation (r= -.010). Powerlessness and normlessness, as well as meaninglessness and normlessness, have rather weak positive correlations with goal isolation (r=.017 and r-.064 respectively) but both are far from significant.

Table IV. Correlations of Powerlessness, Meaninglessness, and Normlessness Scales with Dimension of Alienation Scales, by Functional Differentiation.

| | self evaluative involvement | | | | goal isolation | | | |
|---|---|---|---|---|---|---|---|---|
| | orig. | mech. | craft | auto. | orig. | mech. | craft | auto. |
| | r | | | | r | | | |
| Powerlessness | -.062 | -.009 | -.033 | -.038 | -.010 | -.135 | .077 | .170 |
| Meaninglessness | -.116 | -.016 | -.191 | -.052 | .017 | -.062 | .059 | .176 |
| Normlessness | .065 | .113 | .034 | .010 | .064 | .001 | .106 | .037 |
| N= | 294 | 104 | 98 | 92 | 294 | 104 | 98 | 92 |

As shown in table IV, controlling for functional differentiation has no effect on the relationships of powerlessness, meaninglessness, and normlessness with self evaluative involvement and goal isolation. All relationships hold at about the same level. But when examining the correlations of powerlessness, meaninglessness, and normlessness to goal isolation within each of the three variant technologies, some major differences are noticed. For automated workers, the correlation between powerlessness and goal isolation is r=.170. This is much stronger than the relation for craft workers (r=.077); and much juxtaposed to that for mechanized workers (r= -.135). Also, for automated workers, the correlation between meaninglessness and goal isolation (r=.176), is much stronger than for either craft (r=.059( or mechanized production (r= -.062). But for craft workers, the correlation between normlessness and goal isolation is much stronger (r=.106) than that for workers in either automated or mechanized technologies (r= -.037 and r=.001 respectively), but this is not close to nearing significance levels.

Table V. Correlations of Two Dimensions of Alienation.

| | Goal Isolation |
|---|---|
| Self Evaluative Involvement | .190* |

*Significant at .148, .01 significance level.

As seen in table V, goal isolation and self evaluative involvement are positively correlated (r=.190), but interestingly, as seen in table VI, this positive correlation disappears for mechanized workers and automated workers.

Table VI. Correlation between Two Dimensions of Alienation; by Functional Differentiation.

| | Goal Isolation | | | |
|---|---|---|---|---|
| | orig. r | mech. | craft | auto. |
| Self Evaluative Involvement | .190 | .092 | .331 | -.067 |
| N= | 294 | 104 | 98 | 92 |

for n=104, a significant correlation exists at r=.254 at .01 sign. level.
for n= 98, a significant correlation exists at r=.254 at .01 sign. level.
for n= 92, a significant correlation exists at r=.267 at .01 sign. level.

In fact, for automated production workers there is a negative correlation between self evaluative involvement and goal isolation (r= -.067), though it is not significant. This seems to indicate that for the South Korean worker in automated production as well as mechanized, the extent to which a worker evaluates his self esteem in terms of the workplace has hardly any relation to the extent he has integrated organization goals. A worker may be integrated with organizational goals yet evaluate his social worth in terms of other status criteria. But for craft workers, as hypothesized, these is a strong correlation between the extent one evaluates himself according to workplace criteria

and the degree of integration with organizational goals.

It was hypothesized also that feelings of powerlessness would be more prevalent in workers involved in mechanized production. As shown in table VII, this is borne out as workers in a mechanized system have a mean score for powerlessness of 3.13. Here, the lower score indicates lower degrees of perceived control over one's work environment, thus higher feelings of powerlessness. Automated process monitors were second in perceived control with 3.48 and craft production workers were lowest in feelings of powerlessness with a mean of 3.67, thus ranking first among the three types of functional differentiation in terms of perceived control over one's work environment.

Table VII. Mean Scores for Powerlessness, Meaninglessness, and Normlessness Scales for all Three Types of Functional Differentiation.

| | mech. | | | craft | | | automated | | |
|---|---|---|---|---|---|---|---|---|---|
| variable | mean | SD | cases | mean | SD | cases | mean | SD | cases |
| powerlessness | 3.13 | 1.09 | 104 | 3.67 | 1.06 | 98 | 3.48 | 1.00 | 92 |
| meaninglessness | 4.97 | 1.18 | 104 | 5.46 | 1.09 | 98 | 5.29 | 1.17 | 92 |
| normlessness | 4.18 | .97 | 104 | 3.78 | .74 | 98 | 4.01 | 1.63 | 92 |

The theoretical framework of the present study also hypothesized that workers in a mechanized sociotechnical environment would show greater feelings of meaninglessness than workers in either a craft production system or an automated sociotechical environment. Again, this proposition is supported, since workers in mechanized production exhibit the lowest mean score for feelings of meaninglessness (4.97).

Here again, a lower mean score indicates greater feelings of meaninglessness. Automated workers with a mean score of 5.29 were second and craft workers as expected, show the highest amount of perception of interrelations of jobs at work with a mean score of 5.46.

It was further hypothesized that mechanized workers would exhibit greater feelings of normlessness in the work situation. Again this proposition is supported as mechanized workers exhibit a mean score for normlessness of 4.18. Here a high score indicates a greater degree of perceived normlessness. Automated workers once again place second with a mean score of 4.01 and craft workers rank third with a score of 3.78.

Table VIII. Mean Scores for Self Evaluative Involvement and Goal Isolation Scales for all Three Types of Functional Differentiation.

| | mech. | | | craft | | | automated | | |
|---|---|---|---|---|---|---|---|---|---|
| | mean | SD | cases | mean | SD | cases | mean | SD | cases |
| Self Evaluative Involvement | 3.25 | .67 | 104 | 3.08 | .74 | 98 | 3.08 | .58 | 92 |
| Goal Isolation | 2.82 | .49 | 104 | 2.67 | .60 | 98 | 2.60 | .40 | 92 |

Self evaluative involvement was expected to be lower for workers in mechanized production than for those involved in craft or automated production. This hypothesis is upheld, as shown in table VIII, workers in mechanized production systems show relatively lower degrees of self evaluative involvement in work with a mean score of 3.25, than do employees in the automated and craft industries, each having a mean score of 3.08. Here a higher score indicates lower involvement.

Finally, mechanized workers further were hypothesized to exhibit

lower degrees of integration with organizational goals. This proposition also is supported as mechanized workers show a relatively higher mean score of 2.82. Here a higher schore indicates greater isolation from organization goals. Automated process workers exhibit the higest degrees of integration with organizational goals, with the lowest mean score for goal isolation (2.60). Craft workers rank between automated and mechanized employees with a mean score of 2.67. (A lower score indicates greater integration with goals).

Chapter VIII

# SUMMARY

As noted earlier, many studies have examined the alienating aspects of work. Writers such as Marx (1963), Mills (1956), and Fromm (1965) have dwelled upon man's alienation resulting from numerous causes. Walker and Guest (1952), Chinoy (1955), Friedman (1955), Blauner (1964), Kornhauser (1965), and others have described the boredom and alienation of assembly line workers. Goldthorpe et. al., (1968) has demonstrated that automobile workers are not involved in their work as work simply provides income to support a certain level of life style.

Earlier studies by Shepard, upon which this study is based, have shown that worker's relationships to technology influenced their degree of job-related alienation in a predictable way (Shepard, 1972a,b.). Shepard (1970) also found a positive correlation between the three intervening variables used in this study, as well as a negative relationship of these variables to dimensions of alienation. Shepard found that feelings of powerlessness, meaninglessness, normlessness, and job related alienation tended to be lower among craftsmen, reached a peak among mechanized assemblers, declined to a level below that of either craftsmen or assemblers, and declined to a level below that of office workers. This held true for all dimensions except powerlessness which appeared higher among automated men than among craftsmen (Shepard, 1972a).

This position has been criticized by others who attempt to explain variations in job related alienation by factors outside the

the sociotechnical environment of the workplace. MacKinney, Wernimont, and Golitz (1962) take the position that is prominent among psychologists and management, that worker responses such as alienation and dissatisfaction are best accounted for by focusing on individual differences, and not job specialization. Goldthorpe (1968) has maintained that the prevalence of an instrumental orientation toward work,which is characteristic of mass production workers, can be attributed to prior work attitudes brought into the job rather than to the nature of work that might foster such instrumental attitudes.

But these studies and their surrounding controversies and differences are based upon research conducted in the United States. The theoretical framework used by Shepard and adopted to a great extent in this study is based upon western definitions of alienation and ideas concerning work ethics and motivations. Thus, powerlessness, meaninglessness, and normlessness fall into neat positions with worker alienation.

Ours is a society based upon certain ideas of freedom, autonomy, and rebellion. The Protestant Ethic is probably an overworked explanatory tool in modern social science, but be that as it may, it has some place in our system of values here. The concepts of private property, the right to direct and control one's own destiny and environment are ideas our people are taught and usually have integrated fairly thoroughly (whether they exist in reality or not is another question).

The dream of owning one's own small business and making decisions affecting one's life are dreams that many people acquaintd with this author still nurture. Chinoy (1955) reported that many of the assembly line workers often thought about owning their own small business or becoming farmers. It is felt here that ours is a society of egoists, of self-centered, self-seeking, individualistic people(no connotations of good or bad intended here). Here the rebel is glorified to some degree. Movies are full of those who "buck the system and beat it." Our youngsters' school books are filled with stories of people who refused to bend to social pressures and won. Ours is a history of people who fought against tremendous odds for the purpose of personal freedom and dignity. In our schools, rote memorization is frowned upon as a sole means of learning while divergent thought is encouraged in our schools (at least many of our schools). Teachers=to-be are taught in college to encourage divergent thought among students. The student who learns to do this may carry these values to other areas of life.

As Adams (1965) points out, workers enter a workplace role with certain past experiences and values that comprise certain expectations which, when not met by the social reality of the workplace sociotechnical environment, will produce feelings of inequity, or alienation from that social environment. Many workers here in the United States bring these values or expectations to the workplace and when met by a dominating sociotechnical environment which stems from funtional differentiation of the workplace, the worker may

actually perceive that he has little or no control.

But one must remember that these feelings are based upon cultural values relevant to our society and level of industrialization. For another culture, these feelings of autonomy and freedom may not be quite so relevant. For example, the eastern cultures are much more oriented toward group identity (Sarachandra, 1965). In our custom of splitting a deceased person's property among the individual members of the family we show an individualistic orientation toward that property. But in oriental cultures, this family property is an abstract entity which exists, as it were, apart from actual physical bodies or immediate family members. Loyalty has been demanded by by custom to the continuity of this family concept and the socialzation of the children has been intended to insure this. Thus loyalty and devotion to the group is fostered (Sarachandra, 1965).

At this point, it is appropriate to mention a limitation of the present study. First, materials concerning Korean workers and related industrial life are almost non-existent as far as this author could determine. Several days of search in many university libraries turned up almost no empirical data concerning industrial life in South Korea. Many abstracts of international journals of sociology and general international journals of sociology were searched (those printed in English) as well as all social science indexes for the last ten years. Nothing short of governmental propaganda concerning the "happiness" of the South Korean worker was found. Some relevant materials concerning Japanese workers were found however, and after

long and careful consideration, it was decided to make guarded inferences as to the South Korean work scene. South Korea entered its industrialization on a heavy basis after the Korean War. Many studies were conducted of Japanese workers during the 1960's, or about the same number of years after U.S. economic takeover as has passed since the Korean War and our entrance upon the scene there. Thus Korea now would be relatively close to the same level of industrialization as Japan was at the time when many of the references cited here were written. This stage of industrialization is important to consideration of worker alienation and integration with organizational goals as will be shown later. But at the same time, the writer is aware (vaguely) of a great deal of cultural differences which have existed historically between Korea and Japan for hundreds of years and thus recognizes that these cultural differences may render these inferences as useless. But due to difficulties of finding materials on South Korean workers it was decided to make these inferences from Japan. But it is done with recognition of possible fallacy in stereotyping one "oriental culture" in this way. With this in mind, attention will now be turned to possible reasons why feelings of powerlessness, meaninglessness, normlessness, and isolation are shown to exist at such lower degrees among South Korean workers than among U.S. workers.

Bairy (1969) has pointed out that a well known principle or oriental life is a solidarity between man and his physical environment. For example, the household, situated in a definite place, concretizes

the sense of relationship between nature and man. It is felt that a living reciprocity relation of gifts exists between them and binds them both in a common destiny: nature gives life and man receives it, but man must work the natural setting in order to do so. There is a vital obligation on both sides. Attachment to the physical environment and its accompanying social structure is thoroughly imbedded into the individual through the socialization process beginning with early childhood. Now, it would not be entirely proper to assume that all aspects of social relations of the feudal period have survived intact in the present patterns of industrial relations, but as Takezawa (1968) has pointed out, the comtemporary patterns of industrial relations which have emerged are from an interaction between the social forces of today and those of old. Thus, the industrial revolution in Korea may have served merely to shift this focus for loyalty from the land as the environment to the industrial worksite of today, because the loyalty was (and possibly still is) to place of work. As Ballon has pointed out (1969), in the mind of the oriental worker it is not the occupation that one holds that really matters, rather it is the place of work. Occupational pride is slight but company identification is strong. Whitehead and Takezawa have found (1968) that the worker does not answer the question of "what do you do for a living?" with an occupational name, but with the name of the organization or his production team's work name which offers no description of the actual kind of work done. Bairy (1969) has also stated that while the workers pay little attention to job duties,

since they are desirous of work, they are satisfied to do what is asked of them and have a great interest in the objectives of the firms that employ them. As an extension of the feudal value system, it is felt that just as the field must be nurtured and cultivated and will produce in return, the organization must take care of its workers and the workers must serve the growth of the organization.

Due to the nationalistic movement which has followed the Korean War, there most certainly has been given a clear priority to the so called "public interest" over that of the private life of the working class. Due to threats of invasion as well as to the promotion of the interests of certain elites within the society, a massive propaganda campaign has been waged which promotes the idea that selfish aims are to be achieved only through complete submission to the goals and interests of the corporation and of the nation. Given this propaganda drive and the collectivistic orientation of the Korean value system which is enhanced through the educational system and socialization of children, South Koreans have possibly come to regard work almost unconsciously as a highly favored and valued component of life with no status considerations involved. Satisfaction, as pointed out by Bairy (1969) has a different meaning in Eastern cultures than in western ones. In western culture, satisfaction may involve pleasure in having accomplished a promotion of personality and an affirmation of independence, while for the South Korean worker, satisfaction in performance is pleasure in having accomplished whatever was established as goals for the group or organization of which he is a member. Thus

Whitehill and Takezawa (1968:68) state in a comparison of Japanese and American workers, "the most basic factor to be mentioned is the strong collective orientation which underlies motivation of the workers in Japanese industry. The individuals occupy a secondary role to that of the work group and the organization." This could very possibly explain the greater extent of the South Korean's integration with organizational goals as well as the higher degrees of integration with organizational status criteria.

Another finding which seemingly contradicts the theoretical framework as outlined earlier is the low degree of self evaluative involvement in work, but yet with low degrees of goal isolation for mechanized and automated workers. As shown in table VI, craft workers show a strong positive correlation between goal isolation and self evaluative involvement. This was expected for all workers and with the limited data computations available, an explanation will not be attempted as to why craft workers exhibit this hypothesized relationship while mechanized and automated workers do not. However, one possible reason for the low degree of correlation for these two groups may be in that, as Bairy (1969) has pointed out, the oriental worker is integrated with organizational goals for reasons outlined above. But for the oriental worker, the status criteria evoked for self-esteem evaluation is that of the family and not the organization. For Bairy, the workplace for the oriental worker is not a basis for status evaluation as is for the American worker. Specific job duties are not used in evaluation of one's status. The worker is accorded certain status recognition for his belonging to a certain organization and not

his specific duties. Bairy feels that the most important status criteria called upon are those of the family. The worker can judge himself favorably according to his family's status criteria because his membership in and identity with the organization affords this favorable status. According to the theoretical design presented earlier, this is not possible since one would necessarily be isolated from the workplace goals if he does not evaluate himself by status criteria of the workplace. Could this really be pointing to the cultural biases of our concepts of alienation? The Protestant Ethic is often invoked to explain attachment to work in western societies. It is hard for American and western theorists to conceive of man not being attached to his work role. However, it would seem that it only points to the need of our theoretical frameworks for certain adaptations and considerations of cultural divergences rather than destroying the worth of the theoretical approach as a whole.

Concerning the lack of support for the hypotheses concerning the intervening variables, many other factors may enter into this psychological stage which predisposes a worker to feelings of alienation. Again the cultural bias of the scale items may enter the picture. As mentioned earlier, a worker brings certain expectations to a workplace. The South Korean worker may not expect the same degree of control over his environment that an American worker does. James Abegglen (1958) has called attention to what he terms a "tendency of moderation among Japanese which sometimes caused them to not answer as strongly as they feel" (1958:67). If this applies to South Korean workers, it can be

determined only by further study. Also, what may be considered as restricted choice in work process techniques by American workers may not be considered as restrictive by the South Korean worker. Form (1973) has proposed that things such as concern about work satisfaction and considerations of dehumanizing or unfulfilling work are characteristic of more fully developed industrial societies. As Form feels, probably the less industrialized a society (as South Korea is in comparison to the U.S.), the less salient are factors such as loss of control and job satisfaction to industrial employees; the more industrialized, the more the workers look for these other intrinsic attributes of the work situation.

Another consideration which may be connected to this issue is the time period during which this questionnaire was administered. As Korea is probably to a great degree influenced by economic conditions of the U.S. market as well as others in the western world, the summer of 1976, when this instrument was administered, was a time of higher unemployment and job uncertainty than when Shepard administered it to American workers (1966). For workers who might have problems finding jobs elsewhere, they might tend to think of their job in more contented terms than if other jobs were open which might appear more attractive, and make the present job look less attractive. The year 1966 was a good year for the corporate biggies of our nation as they were busy producing war materials and jobs were plentiful. The same study conducted here last year might have produced indications of much lower worker alienation as a worker might tend to find more positive aspects about their job when faced with fewer opportunities for other, maybe

better, employment. For a boom period in South Koren, worker feelings of powerlessness, meaninglessness, or normlessness might prove to be stronger.

One other factor which might be relevant is that South Korea is under a dictatorship which might prevent workers from expressing feelings of powerlessness, meaninglessness, and normlessness. However, to dwell upon the failures of the interrelatedness of the "processual variables" to occur is to detract from the more central focus of this paper--the relationship of man to machine, or machine to man. The relevance of a worker's relation to his technological environment is still borne out in this study. As Shepard proposed (1972a), and as was stated earlier in this paper, man's relation to his technology affects his feelings of powerlessness, meaninglessness, and normlessness. Dimensions of alienation were highest among workers in a mechanized assembly technology; were lowest for automated process monitors; and were almost as low for craft workers. The only exception to this trend was that automated monitors were somewhat more powerless with respect to work (Shepard, 1972a).

Even though this paper has mentioned many superficial factors which could have affected the correlations found, there are many others which have not been considered but which would clarify many points of confusion concerning the effects played by cultural divergences. Factors such as managerial practices, which are much more paternalistic than found in American industry, can contribute to worker feelings of integration and isolation. Suh (1969) has

proposed that management in South Korea is more humanistic and this allows some form of security and a lifetime committment of the worker.

In this study we see a similar trend. Feelings of powerlessness were stronger in mechanized assembly production. This also held true for meaninglessness and normlessness as well. The major difference here is that automated workers were stronger in feelings of powerlessness, etc., than those in factory work of craft nature. But the mean scores for automated workers and craft workers ran very close to one another. It was also seen that the correlations between types of functional differentiation and dimensions of alienation were intervened by feelings of powerlessness, meaninglessness, and normlessness. But what are the implications here? Seeman (1971) and Form (1973) have suggested that the thinking about man-machine relationships from Marx to Marcuse needs a thorough re-examination. This writer would hope that these men do not mean to scrap the groundwork established by by Marx in considering certain relationships of man to machine. As mentioned earlier, Marx showed modern researchers the need to look to certain relationships that man stands involved in; the tools of, control of, and benefit from his productive endeavors, to study worker unhappiness, unproductivity, and other related maladies.

The factor that stands out above anything else in this paper is that the relationship of man to technology does affect worker alienation, and in a more or less predictable way. Any study of worker alienation which dismisses these relationships of man to machine can never begin

to understand worker alïenation and dissatisfaction. This test needs to be taken into consideration in the future design of industrial worksites in order to improve work conditions in the industrial sphere.

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