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DIMENSIONS OF HEALTH IN BLUE COLLAR WORKERS:
AN ANALYSIS OF THE SOCIAL CONSTRUCTION OF HEALTH

by

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DISSERTATION

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PREFACE

I began my doctoral study with an interest in health promotion from the perspective of a health professional desiring a firmer foundation for intervention with clients. My interest in this area evolved within a nursing career focused primarily on illness. After working extensively with patients in intensive care units, and noting the many conditions of illness which seemed to relate to how individuals chose to live their lives, I began to look at the antecedents for those choices and in how those choices could be influenced in a positive way by health professionals. I sidestepped into a vast health promotion literature, much of it outside of the medical domain. I noticed my own conceptions of health and health behavior changing, drifting away from a predominantly biomedical influence. I began to take on a more global conception of health and its influences. I also began to acquire a more expansive view of what influences health and health behavior, and the role of health promotion activities. I began doctoral study with the idea of gaining more understanding of these dynamics.

During the same period, I also began a second area of professional practice, working with a health promotion program in a factory. I began dealing regularly with the viewpoints of a somewhat healthy and verbal lay constituency, who generally had their own ideas of health, their own ideas of what was important for health, and their own agendas for changing or maintaining their status quo. As part of a team whose function was to identify health needs of this working population, I began to see, in vivid detail, several aspects of a social construction of health: the influence of the work culture, the physical interplay of work with the body, the negotiation between medical professionals and workers for ideological dominance, and the processes by which workers changed, or resisted change in their accepted notions of health and health behavior.

My professional views of what individuals ***should*** do for their health became fuzzier the more I interacted with these individuals, who clearly had their own pragmatic views of health. The complexity of individuals' behaviors in the arena of health became abundantly apparent. I gained a profound respect for lay conceptions of health. Attempts of health professionals to impose an external definition and model of health, no matter how well-intentioned, became increasingly problematic. Instead, I began to see the health process as one of continuous interaction and negotiation, highly related to the contexts in which individuals were situated. The more I became intrigued with the process, the more I noted the lack of focus on the views of the worker in the health literature, from either the sociological or health professional realms. My questions changed from "How can I get people to change their behaviors to improve their health?" to "How do these individuals see their health, and how much is it influenced by the context of their lives, especially the workplace?" I set out to explore the individual worker's conceptions and perceptions of health.

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DIMENSIONS OF HEALTH IN BLUE COLLAR WORKERS: AN ANALYSIS OF THE SOCIAL CONSTRUCTION OF HEALTH

by

Sherry D. Fox

ABSTRACT

Twenty blue collar workers in one factory setting were interviewed to determine their conceptions of health, perceptions of influences on health, and the impact of the work setting on health. Data were analyzed using a 'grounded theory' approach, against background quantitative health measures. Despite evidence of some common health problems, this group of workers claimed a 'good' level of health. Such affirmations of health were firmly rooted in the ***experience*** of the individual. Individual health experience was assimilated into a self-appraisal which exhibited characteristics of a 'health identity.' Health identity was determined to be a unique construct for each individual, derived from biographical experience, social comparisons, the lived experience of the body, and objective signs or measures. The resultant health identity represents a vital linkage of the self, the body, and the social world. Although a notable feature of health identity is a tendency toward stability, several factors were elicited which contributed to identity alterations in some workers.

In the face of many potentially detrimental influences on health, health identity was often actively maintained by several strategies which helped to ensure stability. These strategies were most clearly evident in the work setting where the workers shared common, known exposures to health hazards, yet had diverse

responses to those hazards. For the most part, by employing strategies to maintain health identity (including cognitive, personal control and interactive strategies) individuals were able to maintain perceptions of being in 'good' health. Strategies seen in the workplace may well transfer to other realms of threats to health, such as hazardous environments, heredity, behavioral risks, etc., opening inquiry into broader environmental and social interactions with health in order to understand individual responses to health risks and to health promotion efforts.

Individual health conceptions are incorporated into unique, highly individualized frameworks derived from each person's 'lived experience.' The individual applies commonsense notions to choose and to manage those options which provide a sufficient health to fulfill obligations and enjoyment of life. Implications of these commonsense notions for health promotion efforts are explored.

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INTRODUCTION

Health is a central concern in American society, with countless references to it in the popular media. Many popular magazines have one or more sections dealing with health topics; entire journals such as Hippocrates, American Health, and Shape deal with health and fitness concerns; videotapes such as Jane Fonda's extol the virtues of exercise. Over the past decade, a trend has emerged in which health is presumed to be a consequence of personal behavior, achieved through individual responsibility, and a state which should be actively sought rather than taken for granted. A major reflection of this trend was "Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention" (U.S. Dept. of Health, Education and Welfare, 1979). The views of many professionals coalesced and received official sanction in this landmark publication. Former Secretary of the Department of Health, Education and Welfare, Joseph Califano asserted that improvement of just five habits——diet, smoking, lack of exercise, alcohol abuse, and use of hypertension medication——would substantially reduce seven of the leading ten causes of death in the United States (U.S. Dept. of Health, Education and Welfare, 1979, p. 14). Such viewpoints have become widely accepted as the needed focus for health promotion efforts.

There is recognition that health is much more than the absence of disease, and its attainment requires much more than just following doctor's orders when something goes wrong. Individual lifestyle and choice, as well as the social

environment are seen now as more influential to health than medical care (Crawford 1987). Lay writers in popular media, as well as health professionals, have singled-out individual action as a prime target for reform of the nation's health (Castillo-Salgado, 1984). Health professionals have organized information on healthy behaviors and ways of living into a body of knowledge and activities known as 'health promotion.' The emergence of health promotion programs has helped to further organize and institutionalize these concepts. The worksite has become a prominent showcase for such organized health promotion efforts (Castillo-Salgado, 1984).

Health promotion programs are designed to help individuals change unhealthy behavior and lifestyles. O'Donnell (1986, p. 6) proposed the following definition of health promotion:

> Health promotion is the science and art of helping people change their lifestyle to move toward a state of optimal health. The focus of this definition is lifestyle and behavior, because only when people take action, only when their behaviors change, do they improve their health. Health enhancing behaviors include obvious immediate behaviors that affect physical and emotional health, such as exercising regularly, eating nutritious food, managing stress well, avoiding tobacco, excess alcohol, and drugs. It also includes more encompassing behaviors that affect social, intellectual and spiritual health. These include deciding to work in an organization that encourages a healthy lifestyle and provides challenging work; forming fulfilling relationships with friends and families; living in a community that has clean air and food supply; and having purpose in life.

This definition and most others in the health promotion literature emphasize the role of personal choice and behavior as determinants of health, reflecting common usage of the term. The individual is even seen as responsible for 'deciding to work in an organization that encourages a healthy lifestyle and provides challenging work.' Yet many individuals, particularly in blue collar jobs, may not perceive this degree of choice. The question arises as to whether such a definition of health and the way to achieve it actually reflects the everyday usage and meaning of the term,

or whether such a definition is a theoretical ideal, superimposed from outside the everyday experience of the individual. Walsh (1988, p. 571) points out that, because of the importance of social factors in the production of disease and risk, "...placing responsibility for personal lifestyle just on individuals tends to burden them with something that may be less a choice than a response to social constraints." Thus, such encompassing definitions of health promotion may not be congruent with the reality of individual experience, but rather may be superimposed from theoretical or professional viewpoints.

Little attention has been given to the perceptions of the individuals involved in health promotion efforts, to the meanings of personal choice and behavior, or whether other factors related to health are more significant in individuals' conceptions of health. However, an emerging sociological literature emphasizes the need to elaborate lay conceptions (Calnan, 1987; Cornwell, 1984; Herzlich, 1973; Herzlich and Pierret, 1985). Such issues become especially problematic with the trend toward health promotion in the workplace. Research in this area has been scant. Studies which have been done often indicate that workers do not always choose to participate in such programs; those who do may be those who are already predisposed to healthy behavior (Nice and Woodruff, 1990; Conrad, 1987a; Pechter, 1987; Kotarba, 1983). Of those who do participate, it is not clear that individuals actually change health behaviors. Due to the difficult nature of evaluation of health promotion programs, research has left unanswered such questions as who changes health behaviors in health promotion efforts, and why (Kronenfeld, Jackson, Davis and Blair, 1988). Such problems may indicate ideological discrepancies between providers and lay recipients of health promotion efforts regarding health and health-related goals.

In addition to potential discrepancies in health goals, the generic concept of 'health' itself is problematic, with many definitions which reflect diverse ideologies.

Although health professionals may be functioning with individual clarity regarding their operational definitions, still, there is no universal professional or social acceptance of any one definition. In fact, sociological evidence is compelling in pointing out the fluidity of the concept of health, and its contextual and interactional nature (Idler, 1979; Herzlich and Pierret, 1985; Stacey and Homans, 1978; Stacey, 1986; Cornwell, 1984; Calnan, 1987).

Health is a socially constructed concept, and the views and reactions of the individual actors, as well as the social matrix in which the concept is embedded, are critical to the understanding of health in any group. From the paradigmatic perspective of the social construction of health, it becomes imperative to elaborate those views and their relations to the social context.

THE SOCIAL CONSTRUCTION OF HEALTH

Ideas of health have been largely influenced, even overshadowed, by the biomedical definitions of health, which focus on the absence of objective signs or symptoms (Smith, 1983; Crawford, 1987). However, an emerging literature documents the problematic nature of the definition of health, and redirects the focus from biomedical to social considerations (Stacey, 1986; Calnan, 1987, Idler, 1979). Idler (1979) placed the definition of health firmly within a social matrix, emphasizing the interactive and subjective aspects of health which have been ignored in prior perspectives. From a social constructionist perspective, it is proposed that individuals are capable of giving meaning to their own health, apart from professional determinations. The subjective meaning of health is constructed by individuals from their cultures, histories, traditions, and personal experiences (Idler, 1979, p. 730). The definition of health is embedded in the relations between the body, the self and the social group. Moreover, Stacey (1987, p. 148) noted that concepts of health may vary according to the material circumstances of life:

> The extent to which people are dependent on their own physical labour, the extent to which they can command their own daily lives and the lives of others...appear to bear a relationship to what they think health is, as well as the ways in which they think about illness, disease and suffering and what to do about it.

Although several studies have examined health definitions within a social context (see Chapter 3) the work setting has not been examined extensively as part of the context for health. It is the underlying premise of this research that such an examination needs to be the starting point for any approaches to health promotion directed at individual behavior change in a work setting. Such an elaboration is particularly important in a setting in which individuals are faced daily with potential health threats in the work environment itself. Conceptions of health in workers must be considered within the context of work, as an important element in the material circumstances of the workers' health.

THE WORK SETTING AS A MATRIX FOR HEALTH CONCEPTS

Despite the abundant activity in the realm of health promotion in the work setting, relatively few sociological studies have dealt with health and health-related concepts in the work setting (Walsh, 1988). However, linkages between work and health (or disease) have long been recognized. Certain diseases, such as silicosis in pyramid builders and mercury poisoning of hatters (leading to the expression 'mad as a hatter') have been linked with work (Stellman and Snow, 1986; Kahn, 1981). Physical hazards as well as social and psychological hazards have been attributed to the work environment (ILO/WHO, 1984).

Terkel (1974) described an implicitly negative relationship between work and health in the introduction to his book, Working:

> This book, being about work is, by its very nature, about violence——to the spirit as well as to the body. It is about ulcers as well as accidents, about shouting matches as well as fistfights, about nervous breakdowns as well as kicking the dog around. It is, above all (or beneath all), about daily humiliations. To survive the day is triumph enough for the walking wounded among the great many of us. (Terkel, 1974, p. xiii).

Despite the marvels of 20th century progress, the problem of work-related health impairment is probably escalating rather than abating. Ubell (1989) reported that 60,000 to 70,000 deaths per year result from on-the-job accidents or job-related illnesses (1985 figures). In 1987, 1.8 million Americans suffered disabling injuries on the job (Ubell, 1989). Certain occupational groups are known to have excess risk of death, compared to matched cohorts (Ashford, 1976). These statistics may seriously underestimate the enormity of the occupational origin of the American workers' health problems. Many unknown factors, including work stress and the working environment may contribute to a high incidence of cancer and heart disease (Ashford, 1976, p. 12).

Along with evidence of the working environment as a cause of illness and disease, Herzlich and Pierret (1985) noted the trend, which began with increasing industrialization in the 19th century, to identify a person's health and illness in terms of fitness for work. Modern industry has long been involved in the worker's health from many perspectives, including safety regulations, health insurance, and routine medical surveillance. More recently, a new element has been added——actually trying to alter health beliefs and behaviors of individual workers in order to achieve higher levels of fitness through health promotion.

Many of the points of interface between work and health have received intense scrutiny from medical, industrial and social scientists. Notably missing from most studies are the perceptions of the workers, and the elaboration of the nature of the relationship between the workplace and the workers' health perceptions.

STATEMENT OF THE PROBLEM

Within a context of health promotion, much attention has been directed to the health of individuals, promoted by popular media, sanctioned by many health professionals, by government, and recently, actively sponsored by industry. A modest sociological endeavor has focused on these trends. However, a veritable iceberg of human knowledge surrounding the area of health remains untapped and unexamined. The definition of health itself remains problematic. Lay views are relatively unexplored. Medical sociologists have elaborated the concept of the social construction of health, and have begun efforts to explore lay conceptions of health, recognizing the interactive, contextual nature of health. However, the vast literature on health and health promotion in the workplace remains predominantly rooted in professional viewpoints. It is plausible that professionally predetermined approaches to health promotion may not be targeting the perceived health needs of workers at all. However, little is really understood about the perceptions of workers regarding their own health, and how those perceptions may be influenced by and interact with the work setting. Three research questions were posed to open inquiry into this area:

1) Within the context of a specific work setting, how do workers perceive their own health?

2) What do workers perceive as predominant determinants of, or influences on health?

3) Are the workers' health perceptions influenced by the structure of work and the cultural matrix of the work setting? If so, in what ways?

GROUNDED THEORY AND HEALTH

An approach which allows the perspectives of individuals to be elicited and analyzed seems key in the elaboration of health——its definitions, its meanings, and how it actually is experienced in the lives of individuals. Such understanding is

typically gained through a grounded theory approach (Glaser and Strauss, 1967). Theories on health abound in the individuals who live with various states of health daily. Data from individuals could provide important elements which theorists and professionals, from their ideologic frameworks, may not see.

The response of individuals to current health trends may be rooted in how they perceive their own health, yet an elaboration of these concepts has not often been the starting place for health promotion efforts. This study was proposed to explore health conceptions of blue collar workers.

Chapter 2

DEFINING HEALTH WITHIN A SOCIAL CONTEXT

HISTORICAL CONTRIBUTIONS TO THE DEFINITION OF HEALTH

The term 'health' has many connotations, situated in diverse cultures and eras. As a construct which is inextricably bound to the human perception of the body, the body's functioning, and the body's relationship to the environment, notions of health are found in all societies. However, the definition of health varies widely depending on the vantage point from which it is viewed. In this chapter, current views on health will be contrasted with historical conceptions, and with each other, to demonstrate the problematic nature of the 'definition of health.'

Notions of health have typically focused on notions of disease and dysfunction——factors which made health or its absence problematic to the individual and society. However, in the Hippocratic era of Greek culture, health was seen as more than just the absence of disease. Health was the natural quality of the body, the fulfillment of the natural tendencies of human nature. Health was a virtue, a cultural value to be sought and preserved through principles of equality, harmony and symmetry. These principles applied to the physical body as well as to the relationship of the body to the universe (Smith, 1983). The Hippocratic approach to health was holistic——recognizing the interrelatedness of the mind and the body and the external milieu.

Similar views emerged in nineteenth century writings in Victorian England, summarized by Haley (1978, p. 21) in the following definition of health:

> Health is a state of constitutional growth and development in which the bodily systems and mental faculties interoperate harmoniously under the direct motive power of vital energy or the indirect motive power of the moral will, or both. Its signs are, subjectively recognized, a sense of wholeness and unencumbered capability, and externally recognized, the production of useful, creative labor.

This definition implies a mind-body integration which results in socially productive labor, linking health with the social environment, and emphasizing a subjective as well as objective character.

Notwithstanding the pre-existence of such global, inclusive conceptions of health, twentieth century approaches to health have been largely based on narrower conceptions of health rising from a biomedical model. This model of health is incorporated into most theoretical and practical writings of health, either explicitly or implicitly.

THE BIOMEDICAL DEFINITION OF HEALTH

In the biomedical model, health is defined as the absence of disease or disability, as determined by objective measurement of signs or symptoms (Smith, 1983; Engel, 1984)). Within this model, health may be determined variously as congruence with a statistical norm, or as congruence with an ideal of normal function, predicated on scientific knowledge of the optimal functions of the human body and its systems (Smith, 1983).

Originally evolving from the scientific study of disease, the biomedical model employs a reductionist, mechanistic approach to the physical body (Engel, 1984). The body is seen as a machine made up of discrete parts, each of which has definable functions and dysfunctions. Health can be achieved by recognizing signs of dysfunction and applying specific scientific treatments.

The successes of biomedicine in a narrow domain of feared contagious and acute diseases tended to overshadow the significance of other determinants of health and illness such as social, economic and environmental factors (including improvements in sanitation, nutrition, and personal hygiene (Gordon, 1980; McKeown, 1984; MckinLay, McKinlay, and Beaglehole, 1989). For example, the explanatory power of the 'germ theory,' the notable successes of biomedical

science in combating specific diseases with medicines (such as penicillin for pneumonia and insulin for diabetes), and successful surgical techniques led to widespread regard (perhaps even reification) for biomedical approaches to health (Gordon, 1980, p. 5).

The biomedical model dominated medical approaches to health, but in addition, was extended to other domains of life which had not been previously seen as predominantly disease-related, such as birth, death, mental disorders, and problems of social deviance (Gordon, 1980). The process of expansion of the medical domain has been termed 'medicalization' by sociologists (Zola, 1984; Fox, 1984). The implications of such expansion include: an individualistic approach to health despite strong evidence of the social origins of many health concerns; disregard of the views of the individual in the health care system, who is expected to defer to the power and authority of established medical ideology; and increased use of 'biological' justification for exclusion of those who don't fit social norms (Zola, 1984).

Despite the dominance of the biomedical model, its limitations have become increasingly evident, even within the medical care arena where it predominates (Engel, 1984, Gordon, 1980). Engel noted the limits of the reductionist approach in dealing with many health conditions such as diabetes and schizophrenia, which clearly involve psychological and social factors beyond the basic biochemical disturbances:

> ...the existing biomedical model does not suffice. To provide a basis for understanding the determinants of disease and arriving at rational treatments and patterns of health care, a medical model must also take into account the patient, the social context in which he (sic) lives, and the complementary system devised by society to deal with the disruptive effects of illness.... (Engel, 1984, p. 68).

The presumed impact of the biomedical approach to health has been further critiqued through reanalysis of epidemiological data which counters the commonly held assumptions that twentieth century advances in human life expectancy are due to modern medicine (McKeown, 1984; McKinlay, McKinlay and Beaglehole, 1989). Through reevaluation of nineteenth and twentieth century public health statistics, Mckeown (1984) contributed to a growing recognition that modern advances in health *coincided with*, rather than being *caused* by medical advances. He attributed improved health in western society to improved nutrition, a safer environment including regulations governing food and water, and through behavior changes, especially those limiting population growth (McKeown, 1984). Applying a similar analysis to health advancements in the United States, McKinlay, Mckinlay and Beaglehole (1989) re-examined mortality and morbidity data. Based on their reinterpretation, they posed the question whether American health really has improved under biomedical dominance. Life expectancy has increased, but it is not clear that an associated improvement in quality of life has been achieved. People may live longer, but with more disability. Biomedical approaches to major causes of mortality have not addressed the environmental and personal risk factors which many presume are implicated. Cancer and heart disease are examples of health problems which have been unsuccessfully addressed by the limited approaches based on the biomedical model. Growing evidence indicates the multicausal nature of these health problems, which may be related to ways of living, to the complex interplay between mind and body, and to the environmental context (economic, social, cultural) (Gordon, 1980).

In addition, as consumers have become more active and vocal, their viewpoints have become prominent counterpoints to biomedical assumptions (Gordon, 1980). A case in point is the growing feminist critique of biomedical assumptions which have dominated approaches to women's health care in the twentieth century. These

assumptions——about pregnancy, menstruation, menopause, and other health concerns of women——arose in a male dominated arena in which women's views were systematically discounted, medicalized, or trivialized (Ehrenreich and English, 1986).

Illich (1976; 1984) presented another powerful critique of biomedical dominance in health matters. He alleged that twentieth century approaches to health actually have a health-denying effect by expropriating the "...potential of people to deal with their human condition in an autonomous way...." (Illich, 1984, p. 134). Illich presented a definition of health expanding beyond the biomedical definition:

> Health designates a process of adaptation. It is not the result of instinct, but of autonomous and live reaction to an experienced reality. It designates the ability to adapt to changing environments, to growing up and to aging, to healing when damaged, to suffering and to the peaceful expectation of death. Health embraces the future as well, and therefore includes anguish and the inner resource to live with it. (Illich, 1984, p. 141).

Illich charged that these areas are not the concerns of the medical establishment, but are true health concerns which should not be subsumed under the biomedical model.

Mishler et al. (1981, p. 50) charged that the biomedical assumptions about illness (and presumably about health) have totally disregarded the social contexts of patients and their illnesses. Thus, cross-cultural variations in definitions of health and illness have been ignored. In addition, the priorities for health, under this model, have been on curing individuals, rather than on promoting the health and well-being of communities (Mishler, et al., 1981, p. 24).

HOLISTIC DEFINITIONS OF HEALTH

In the second half of the twentieth century, several health theorists elaborated more expansive definitions of health, leading to more 'holistic' concerns. Dunn

(cited in Pender, 1987) coined the term 'high-level wellness,' defined as a state of optimal health, which focused on the human potential for self-actualization. Health was seen as:

> ...an integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable. It requires that the individual maintain a continuum of balance and purposeful direction within the environment where he is functioning. (Dunn, cited in Pender, 1987, p. 21).

In this definition, the individual capability is judged in relation to self-norms, rather than some standard biomedical criteria for normal function. Additionally, health includes a focus on balance and forward movement, within the context of the environment.

The works of Dunn and others who have found the biomedical definition of health to be limiting or inadequate, have formed the basis for 'holistic' models of health (Pender, 1987). These models typically focus on individual growth and self-actualization, promoting a strong value for the responsibility of the individual in working to achieve health. Unity of body, mind and spirit are recognized. Many holistic practitioners attempt to understand and treat individuals within the context of their culture, community and family. Some holistic models include approaches to change social and economic conditions which impact on health (Gordon, 1980). Such holistic concepts contributed to the World Health Organization's expansion of the biomedical definition of health as "a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity." (Pender, 1987, p. 17) This definition explicitly expands the realm of health beyond the physical, into mental and social arenas. However, such an expansive definition is problematic, lacking a clear delineation of 'complete' well-being.

SOCIOLOGICAL DEFINITIONS OF HEALTH

The preceding definitions of health originate in health-related literature which is focused on health as an individual phenomenon of concern to health practitioners. In contrast with these definitions, sociologists have been more concerned with social definitions of health, and the relationship of health to the broader community. Stacey and Homans (1978, p. 282) emphasized the centrality of health issues to sociological concerns, noting that the way a society handles its crucial health issues tends to reflect, as well as enforce, the major institutions and values of a society. Thus, health connotes social as well as physical and mental dimensions. Sociological study of these dimensions can be quite fruitful in understanding social organization and social interaction and their consequences. Social definitions of health are typically addressed from the broad perspectives of three major sociological paradigms.

Structural/Functional Definitions

The structural functional paradigm focuses concern on ways in which order is maintained in society, through the study of social structures and their functions. The ways in which society deals with issues related to health are seen as manifestations of the social order. The classic work of Talcott Parsons is an exemplar of the structural functionalist perspective on health. Within this paradigm the standard biomedical definition of health is implicitly accepted. However, biomedical health is further defined in terms of social roles and social control. According to Parsons, health is "...the state of optimal capacity of an individual for the effective performance of the roles and tasks for which he has been socialized." (Parsons, 1964, p. 262). Parsons dichotomized mental and physical health, although he noted that in some conditions these types of health intertwined. Mental health pertained to the ability to perform social roles whereas physical health

pertained to the ability to perform necessary tasks in the social order. Illness——the absence of health——is a disturbance of the capacity of the individual to perform expected roles or tasks. Such disturbances can be crucial for a society which is dependent on the successful fulfillment of social roles. Thus, when health is disturbed in the individual, repercussions extend to the social level. Health transcends the individual level, becoming a crucial foundation in the social structure.

Social control of the individual's health becomes critical to the normal operations of society. The social structure must be able to exert control over the health of individuals. Social norms are regarded as important features in such social control. In addition, the physician was seen by Parsons as an agent of social control. As such, society delegates power to the physician to determine what constitutes health and illness. Consequently, designations of health and illness are determined with reference to the standard biomedical definition which is focused on the individual and on specific signs and symptoms of disease, rather than on the possible social origins of health problems.

Critical Perspectives on Health

Critical analyses of social structures and functions veer away from the conservative structural functional examination of the existing social order. Key elements of critical sociology are the presumed historical bases for current social structures, the political and economic determinants of social conditions, and the implications of power in determining social conditions. Issues of health are seen in relation to the dominant modes of production, to social class, to ideological dominance by those in power, and to an illness-producing social environment. (Navarro, 1986; Kelman, 1975; Salmon, 1984; Crawford, 1977).

Marx provided a foundation for many of the current critiques of the structural

functionalist definition of health. Like Parsons, Marx recognized the interplay of social structure with health, but he viewed the effects of social structure chiefly in terms of the impact on the worker. Marx graphically described the links between work and health:

> Factory work exhausts the nervous system to the uppermost; at the same time, it does away with the many-sided play of the muscles,and confiscates every atom of freedom, both in bodily and in intellectual activity. (Marx, quoted by Freund, 1982, p. 130).

Within the Marxian framework, the connection between the social environment and health is painfully obvious. Unlike the conservative view which accepted the natural evolution of health concerns under capitalism and the necessity of social control over the worker for the system to work, Marx took a highly critical view, maintaining that the entire system of production would have to be revolutionized and the controls of capital abolished, to remedy the evils imposed on the worker (and the worker's health).

Building on these concepts, Kelman (1975) explored the problem of defining health in a capitalist economy. Kelman differentiated between 'functional' and 'experiential' definitions of health. Under capitalism, the definition of health focuses on the functional, i.e. the capacity to do productive work. Harmful elements in the environment which would tend to decrease the competitive edge of production if corrected, are not considered as part of the realm of functional health. Experiential health is the individual's capacity for human fulfillment and transcendence of alienating social circumstances. Given the individual's relation with production, which is an alienating process in capitalist society, experiential health will always suffer. The process of alienation leads to the polarization of the experiential and the functional aspects of health, conceptualizations which cannot be merged. Optimal health, under this social definition, cannot be reached until the individual's relation with the capitalist mode of production is radically altered.

Interactionism and the Social Construction of Health

More recently, all of the previous approaches to defining health have been questioned by sociologists in the symbolic interactionist and social constructionist frameworks. Within the interactionist perspective, individuals are seen as creating and recreating society through interaction, including the exchange of symbols which acquire shared meanings. Social constructionism builds on these precepts, explaining knowledge and reality as social products which become institutionalized and habituated through interaction and shared meanings (Wallace, 1988).

An interactionist perspective on definitions of health and illness has been explicated by Idler (1979). As in the critical perspectives, the definition of health is seen as problematic. Health is placed firmly within a social matrix, but Idler emphasized the interactive and subjective aspects of health, rather than the political, historical and economic aspects. Health is a taken-for-granted aspect of everyday life, and is subject to multiple interpretations. Both the structural/functional and the critical theory definitions of health are criticized as remaining firmly embedded in the medical system, restricting the avenues of sociological inquiry. Thus the subjective social reality of health and illness, and lay health beliefs and practices have been overlooked in these paradigms.

From the social construction perspective, individuals are capable of giving meaning to their own health, apart from professional determinations, and apart from material contexts. Subjective reality plays a dominant part in the individual's health. That reality is socially influenced. In addition, the knowledge of the body, as well as individual health beliefs and practices, are social products. The subjective meaning is constructed by individuals, from their cultures, histories, traditions, and personal experiences (Idler, 1979, p. 730). The definition of health is embedded in the relations between the body, the self and the social group.

Crawford (1984) elaborated these concepts, in his "cultural account of health". He emphasized the significance of the interplay of the physical body and the social body, which makes it difficult to know where "nature ends and culture begins." (Crawford, 1984, p. 61). Furthermore, he stated that "Health, like illness is a concept grounded in the experiences and concerns of everyday life..." and as part of everyday life, "notions of health will reflect ongoing, long-term concerns and conventional understandings." (Crawford, 1984, p. 62).

Stacey (1986) likewise noted that concepts of health and illness are socially constructed. Although derived with reference to a common biological base, they are shaped as well with reference to sets of social relationships and actions. Herzlich (1973) also dealt with health concepts as modes of relationship, i.e. equilibrium/disequilibrium between people and environment, human ecological, and social structural factors.

In striking contrast to all the conceptions of health discussed previously, the interactionist/social constructionist paradigm considers the viewpoints of the *individual actors* involved, using interpretive approaches to elicit the meanings underlying health beliefs and actions. Studies utilizing this approach to the study of health and illness have been limited, but highly revealing. A review of important findings from these studies is summarized in Chapter 3.

A review of a variety of domains of literature on the definition of health reveals that any definition is highly problematic. Under the dominant biomedical definitions, the social factors which are integrally related to health are ignored; within the perspective of critical theory, the significance of the meanings of health for individuals are glossed over. Despite much theoretical attention, an 'understanding' of health is not yet fully attainable. A fruitful avenue for exploring concepts of health is the examination of the viewpoints and experiences of individuals, and the grounding of theory in that data.

Chapter 3

EMPIRICAL APPROACHES TO LAY CONCEPTIONS OF HEALTH

In contrast with the proliferation of articles theorizing on ***abstract*** concepts of health, few ***empirical*** studies have been conducted. However, studies of lay aspects of ***illness*** have been numerous. These studies often touch on a few, limited aspects of ***health*** which open the realm of inquiry into health, but often without expanding it. However, in the past decade several studies have contributed significantly to an understanding of lay views of health. In this chapter, studies which have a major focus on health, as opposed to illness, will be reviewed.

INDIVIDUAL MEANINGS OF HEALTH

In an effort to delve into the meanings of health for individuals, Baumann (1961) compared responses of 182 patients with chronic disease and 252 medical students to the question:

> We are trying to find out more about what people regard as "health," or as being "physically fit." What do you think most people mean when they say they are in very good physical condition?

(It is interesting that she used the terms 'health,' 'physically fit,' and 'good physical condition' interchangeably in her interview question. She concluded that the subjects also appeared to see the terms as interchangeable, as only one medical student discriminated among them). Responses were content analyzed with three themes emerging. Both the patients and medical students described health in terms of:

1) a feeling state (a general feeling of well-being)
2) a symptom orientation (absence of illness symptoms)
3) a performance orientation (being able to fulfill everyday activities).

The symptom orientation was mentioned more frequently by the medical students, whereas performance qualities were more frequently mentioned by the patients. There were also indications that the importance of each of these dimensions might vary according to age, education, social class, religion, or physical condition. Most subjects identified two or more dimensions, indicating that health was not seen as one-dimensional. This study provided an exploratory starting point for examining differences in health conceptions between professionals and lay persons. However, definitive differences were not clearly determined, nor were the bases for such differences explored. The multi-dimensional nature of health was an important finding, built on subsequently by other researchers.

Herzlich (1973) explored meanings of health and illness held by lay people in France. She interviewed 80 adults, ages 25 and over, with an equal mix of those under 40 and those over 40, male and female, professional as well as middle class, and primarily urban residents. (She also included a subsample of 12 rural subjects for comparison). Her purpose was to explore linkages between individual experience and social representations. Herzlich maintained that in the realm of health and illness, the experience of the individual and the values and information acquired in social interaction fuse into a single image. By studying the images formed around health and illness, she proposed to understand the development of social representations and their function in the constitution of reality (Herzlich, 1973, p. xiv).

Three major areas were explored:

1) themes, concepts, and constructs which account for the genesis of health and illness in the individual;

2) terms which defined, limited and classified health and illness concepts;

3) accounts of the behaviors of the healthy and the sick, and behaviors which lead up to those conditions (Herzlich, 1973, p. 15).

Data from the interviews were content analyzed with reference to these three areas.

In Herzlich's sample, health was seen as an 'endogenous' attribute of the individual, including one's constitution, temperament and resistance capability. Illness was seen always as 'exogenous' to the individual, an attack resulting from the 'way of life,' which referred primarily to the detrimental effects of urban living. The way of life included the general environment, the rhythm of life and everyday forms of behavior. Work was seen as a dominant determinant of the individual's way of life, by imposing its own unique setting, rhythm and conditions. Her sample viewed the modern way of life as unhealthy and constraining; the individual was seen as passive and powerless in the face of the overwhelming dominance of the external features of modern life. The individual's endogenous ***health*** is thus always in conflict with the exogenous social origins of ***illness*** (Herzlich, 1973, p. 50).

Health was described as complex, denoting more than one type of phenomenon. Herzlich labeled the three dimensions as:

1) "health in a vacuum"——the absence of illness;

2) "reserve of health"——an asset inherent in the individual but evaluated by external comparisons with others;

3) "equilibrium"——an autonomous experience of the individual, and 'normed' to that individual (Herzlich, 1973, p. 55).

Equilibrium is an expression of the ability to maintain a stable relationship with the environment. Themes encompassed by equilibrium included physical well-being, absence of fatigue, psychological well-being, freedom of movement, and good relations with others. Measures or behaviors undertaken for the purpose of health reflected the individualized nature of this realm of health. Individuals may accept some measures and reject others, based on their own sense of need. Individuals in this sample were most concerned with diet and sleep, followed by relaxation and personal hygiene as measures important for health. The choice of health measures

was seen as a personal norm by Herzlich, acquiring personal meaning and mediating between the individual and the illness-causing way of life. Herzlich attributed major significance to the concepts of health and illness, as factors influencing the individual's self perception, shaping behavior, and shaping relations with the social group. In addition, health permits adjustment to the external environment, and makes it possible to participate in society (Herzlich, 1973, p. 94).

The intensive approach of this study permitted a deeper examination of conceptions of health than prior approaches. The open-ended interview format allowed issues of both health and illness to emerge, rather than being predetermined by the researcher. The meanings that people attach to the concepts of health and illness were reconstructed within a context of the language, categories and associations made by those interviewed, to arrive at common shared meanings (collective representations).

SOCIAL CLASS AND HEALTH CONCEPTIONS

Along with the sociological perspective that health and illness develop as collective representations with shared meanings, other evidence emerges which emphasizes the variability of shared definitions, based on factors such as culture, type of work, age, sex, social division of labor, socioeconomic status, access to health care, and other factors.

Blaxter and Paterson (1982) collected longitudinal data on 58 three-generation families in Scotland, exploring health status, health attitudes and utilization of health services. They were particularly interested in patterns of health deprivation in lower socioeconomic classes, the degree of intergenerational continuity in those patterns, and the influence of the cultural environment. Interviews were conducted with individuals and their families within the home setting, over several time intervals, so an ongoing relationship was established with the respondents, and

responses could be interpreted within the context of the family setting and family relationships.

Health was perceived by their subjects as the absence of illness, or as the ability to perform normal functions. In contrast with Baumann's (1961) and Herzlich's (1973) findings, there was little evidence of 'positive' conceptions of health such as feelings of well-being or physical fitness. The norms for health were relatively low, with much acceptance of 'normal' (expected) health problems, such as those perceived to be part of aging, or part of being a woman. Even many chronic conditions were considered 'normal' as opposed to illness if the respondents had become accustomed to their presence.

Health had a strong 'moral' dimension. That is, much of illness was seen by the respondents as hypochondria or weakness which could be overcome by strength of character. Thus few wished to describe themselves as in poor health regardless of the circumstances. Respondents typically rated their health as good or average, despite poor health records.

Blaxter and Paterson concluded from their data that there was partial evidence to support the idea that health attitudes and beliefs are transmitted intergenerationally through families. They also found partial support for the influence of the cultural and socioeconomic environment on health. However, they suggested a much more complex model, one which would encompass more than social class and intergenerational transmission of ideas, is required to explain health and illness beliefs of lay populations. Although their approach allowed a great deal of understanding of the shared meanings of the family, it did not elaborate extensively on the broader context of these concepts, such as interactions beyond the family structure.

CROSS-CULTURAL COMPARISONS OF HEALTH CONCEPTIONS

Williams (1983) linked conceptions of health to social organization in order to examine cross-cultural differences in industrialized societies. He postulated that health conceptions may influence adherence to preventive care. He utilized open-ended interviews (n=70) as well as a randomized survey (n=619) of elderly people in Aberdeen, Scotland. The interviews included individuals from the middle class and the working class. Respondents discussed current health and health history, and attitudes toward prevention or management of illness.

Three dimensions of health emerged from the interviews:

1) health as the absence of illness and disease;
2) health as strength——implying a reserve or resource to be drawn on, a resource which has an achieved quality and which is construed in terms of biographical continuity;
3) health as functional fitness (for normal duties).

Most of the respondents described their health as good, despite the presence of a chronic condition. A single chronic condition which was not expected to worsen did not necessarily affect perceived health. However, if a chronic condition was present, health was rarely rated as excellent. Moreover, as the number of chronic conditions increased, health ratings decreased. Williams interpreted this phenomenon as an indicator that 'absence of disease' was a major element in his subjects' conceptions of health. However, in both the lower and the middle classes, data indicated that perceptions of individual health may also vary independently of disease.

Williams compared his findings with those of Herzlich's (1973) French sample of middle-age, middle-class subjects. Basic similarities were found in the three main dimensions of health, despite the differences in age, social class and nationality of the two studies. However, there were apparent cultural differences in the emphasis

on strength as health, and the relationship of weakness (not associated with disease) to role performance and equilibrium. The Scottish sample appeared to have a more disease-centered conception of illness, with a stronger moral imperative to continue normal duties unless legitimately ill, compared to the French subjects. Williams' comparisons provide evidence for some cross-cultural differences in health perceptions, as well as cross-cultural similarities.

Stacey (1986) summarized many findings dealing with the differences in conceptions of health across societies as well as differences within cultures. For example, she compared Herzlich's findings of a French sample, with Williams' findings of an elderly Scottish sample (Stacey, 1986, p. 14). The French concept of health was more related to balance or equilibrium, whereas for a Scottish community, health was seen as fitness for work. However, within the French community, the working class French held views more similar to the Scots. (This comparison is interesting, given later findings of D'Houtaud and Field [1986] which showed similarities between the perceptions of the elderly and the manual worker, in one setting. Perhaps the differences are not cultural so much as related to age and status within the culture).

STRUCTURAL CONDITIONS AND LAY CONCEPTIONS OF HEALTH

The influence of social status on health conceptions has been suggested by the work of d'Houtaud and Field (1986). They examined lay conceptions of health ("what is health and where does it come from?") obtained from questionnaires administered to 11,002 respondents undergoing a health examination. The questionnaire consisted of closed-ended questions on eighteen themes which were developed from prior open-ended interviews on health conceptions (n=4000). Data were analyzed quantitatively according to age, and to six hierarchical occupational categories which represented socioeconomic strata. Results indicated an interaction

between social structure, social position and health beliefs and practices. Four themes were clearly dominant in top and middle management ("to feel well in one's skin; equilibrium; personal unfolding; not to feel one's body"). Three other themes were more common for manual workers ("not to be sick; top of one's form; good morale"). Manual workers were noted to have fewer resources and to perceive less self-determination for health, compared to management level workers. These data, interpreted by the authors as supporting socioeconomic differences, might also indicate differences in health conceptions related to work contexts which were not explored in this study.

Calnan (1987) used an ethnographic perspective to examine lay models of health and health control, and lay models of illness and illness management. He compared health beliefs of women from professional backgrounds (n=30) to those of women from semi-skilled or unskilled occupations (n=30) to determine if and how social and economic circumstances structure people's ideas about health. The interviews were analyzed qualitatively, with content analysis applied to tabulate common categories of responses.

Calnan began by examining the value of health, how different social groups define health, and what health means to them. He also examined beliefs about susceptibility to health threats, beliefs about disease causation, and beliefs about individual responsibility for health, compared to beliefs about medical and governmental responsibility.

Calnan found that three major groups of elements shape lay beliefs about health maintenance:

1) beliefs may be generated from experience and from folk knowledge;
2) beliefs may reflect a broad socio-political ideology of health;
3) beliefs may derive from expert, professional viewpoints.

These three groups of elements are interrelated, and may be mediated by social structural elements.

Calnan, unlike D'Houtaud and Field (1986) did not find glaring differences between the occupational categories. Both middle-class and working class women defined health in physical terms, although the middle class subjects included slightly more reference to mental as well as physical health. When discussing personal health, definitions in both groups were primarily negative definitions (such as absence of disease) versus positive definitions (such as being strong, active, or having a good outlook). However, the middle-class women identified more positive elements than the working-class women, who emphasized absence of illness and functional aspects of health.

A more marked social class differentiation was found when respondents were asked in the *abstract* about health and ill-health. In this instance, the working class subjects were more likely to use a uni-dimensional definition of health as functional health, similar to the findings of d'Houtaud and Field (1986). Calnan postulated this difference could be an artifact of the interview process, in which middle-class subjects might appear more articulate than workers in responding to a middle-class interviewer.

Both groups identified things the individual could do to maintain health, with diet and exercise mentioned most frequently. However, a lifestyle approach for achieving health was more popular with the middle-class subjects. Working class subjects felt there was little they could do to influence health status. A moral dimension of health was not as prevalent as in previous studies. Although these women felt the primary responsibility for health rested with the individual, there was a strong belief in government involvement. The middle-class subjects thought the government's role was in the area of health education; working class subjects viewed government's responsibility as financial——reducing barriers to obtaining

such things as healthy food, or access to fitness facilities. Subjects in both groups saw a link between occupation and health status. However, Calnan was not specific on the nature of this linkage, nor variations between the groups.

Calnan concluded that lay concepts are complex and sophisticated. The lay person was seen by Calnan as active and critical in the management of health, and not an uncritical recipient of social or medical ideology. Medical ideology has influenced lay conceptions in relation to health as the absence of illness, but only in this one dimension. Calnan's subjects were skeptical of official ideology linking smoking with cancer, or promoting the value of modern medicine. This skepticism was more pronounced in the working class subjects, reflecting social structural influences on health beliefs. Working class subjects tended to assess personal vulnerability to health risks in terms of personal experience, rather than on health injunctions based on statistical or theoretical models. The effects of variables such as gender and age on concepts of health were not determined.

THE SOCIAL CONTEXT AND HEALTH

Cornwell (1984) conducted intensive interviews with twenty-four East Londoners, to study their experience of health, illness and health services. She utilized an ethnographic, case study approach, interviewing at several points in time in natural settings, which allowed her to consider health experiences in the context of everyday lives. She elicited characteristics of the community, work, and family life, examining the consequences of collective as well as personal circumstances. From this contextual base, she explored 'commonsense knowledge' (lay knowledge) about health and illness. The majority of Cornwell's findings related to illness rather than health, reflecting the major focus of her subjects. However, the limited findings on health will be given the major focus in this review.

Commonsense knowledge was defined by Cornwell (1984, p. 21) as "the meaning in common social currency...rather than individuals' ideas...." Commonsense knowledge was seen as deriving from life experiences, and was heavily influenced by the context of those experiences, as well as being influenced by medical viewpoints. Cornwell emphasized the family, the neighborhood and the community as common denominators of those experiences. She also noted the significance of work, but beyond mentioning the working-class origins of her sample and their concern about health as it related to the ability to fulfill one's duties at home or in employment, she did not deal directly with the work setting itself as a context for the construction of commonsense knowledge about health.

An important methodological consideration was Cornwell's finding that her subjects expressed various viewpoints at different times and in different contexts. She noted that in discussing issues in a novel situation, with an interviewer who was unfamiliar and presumably an 'expert,' the participants had a tendency to 'manage information,' in an effort to present a publicly acceptable viewpoint. She labeled this form of presentation 'public accounts.' Public accounts demonstrated an awareness of and concern with viewpoints of professional or medical authority. As subjects became more familiar with the interviewer they discussed issues at a more personal level, relating anecdotes about incidents in their lives. The data or values presented in public accounts would be frequently contradicted by these 'private accounts,' which were more practical and pragmatic than public accounts, based on actual life experience. Private accounts evidenced little concern for the presentation of a 'proper' professional viewpoint. Given such discrepancies in lay accounts of health depending on the context, Cornwell advised caution about making generalizations regarding lay health conceptions derived from interviews in which this phenomena of public versus private accounts may be operative.

Cornwell also noted the importance of considering the context in which meanings of health arise. From her sample, it was clear that work was an important context for health, but there were differences between the way women perceived their work (housework and childcare) and the way men perceived theirs (employment), leading to gender-linked variations in the relationship between work and health. She stated:

> It is not enough to know that health is interpreted as 'functional ability' or 'capacity to work'...without knowing something about the nature of the work people do and of their relation to it. (Cornwell, 1984, p. 145).

However, the interviews were situated in the family setting, and did not actually explore the context of the work setting.

A minor finding, but one which is of interest, was the difficulty her subjects (and those in studies which she reviewed) had in "defining what they mean by 'health' and 'being healthy.'" (Cornwell, 1984, p. 145). Cornwell speculated this was due to lack of clarity by the medical profession in defining health except as absence of disease. This lack of clarity presumably led to a conceptual gap in 'commonsense knowledge' about health. Another interesting finding was that these subjects offered *no* private accounts of health. "People did not spend time recalling periods of their lives in which they knew what it was to feel healthy, or talk about feeling well at all." (Cornwell, 1984, p. 134). Cornwell does not draw relationships between these two phenomena, but it may be that, lacking a clear medical conception of 'health,' and thus lacking clear relevance of health in public accounts, even the subjective experience of health lacked relevance for these subjects.

Cornwell concluded that "The relationship people have to health and illness is governed by commonsense ideas and values which are grounded in their way of life." (1984, p. 203). The fabric of commonsense is woven from the individual's

own experience of illness, medical care, and knowledge of others' experience. Although this is an important and useful study, when dealing with the work context in relationship to health, a more extensive examination of that context is needed.

THE MORAL DIMENSION OF HEALTH

In Cornwell's (1984) study as in Williams' (1973), an obvious moral dimension was attached to health. The 'right' position was basically that of being healthy. Any illness must be legitimated, to avoid the element of moral blame. Given this moral position on the correctness of being healthy, Cornwell's subjects claimed states of good health which seemingly ignored past histories of major illnesses.

Although some medical concepts were readily incorporated into commonsense knowledge, Cornwell's subjects steadfastly rejected medical conceptions which related lifestyle to disease. Cornwell postulated that this phenomenon illustrates an important feature in the process of medicalization. Medicine is seen as a legitimating authority, and to the extent that its precepts *legitimate* the health status of the individual, those precepts are incorporated into the lay stock of knowledge. However, when the message from the medical domain is more likely to place *blame*, rather than legitimate the individual, its precepts are more likely to be rejected from commonsense knowledge. These findings seem consistent with the moral meanings associated with health, and the desire of the individual to maintain an absence of blame regarding health problems.

Cornwell found that the moral philosophy related to health and illness reflected the moral accounts related to work. One's moral reputation depended on being healthy as well as on being able to work. Good health was seen largely as a matter of fate——being born with a sound constitution. In addition, good health could be earned by living a 'good' life of moderation, virtue, cleanliness, decency and hard work. Similarly, one's work was seen to be a matter of circumstance, but given

those circumstances, individuals could make the most of themselves by working hard and maintaining a proper attitude. Individuals may not have much control over the hands they are dealt in life, in work and in health, but how those hands are played is up to the individual. However, in private accounts of work, individuals actually reported having very little freedom or choice, but rather were compelled to make the best of the circumstances by adapting positively (Cornwell, 1984, p. 80).

Crawford (1984) also found a strong moral dimension to health. He interviewed 60 Americans to determine their viewpoints on health——how they rated their own health, their explanations for their state of health, the impact of physical or social environments, perceived threats, and notions about protecting or enhancing health. The majority of the sample was white, middle-class, female and under the age of forty.

Crawford's analysis reflected the moral mandate to be healthy found by others (Cornwell, 1984; Williams, 1973); his data also supported the experiential nature of health. He found, like Cornwell (1984), that although medical views appear in discussions of health, lay definitions are not limited to simply repeating the medical view. He summarized:

> Most people...start off by saying that they are healthy, reflecting in part a strong moral imperative attached to health and to the normality of health.... Health clearly represents a status, socially recognized and admired and therefore important for our identities. Most often, however, people go on to describe their health as variable rather than fixed. Health, in other words, is a state of being that is understood to shift with experience. It is a matter of degree and it is dynamic. Nor is health viewed as simply a physical matter. While many people discuss health in the prevailing medical idiom, most use terms and notions that extend beyond the confines of definition and explanation offered by the bio-medical sciences. (Crawford, 1984, p. 64).

Crawford's sample described health in terms of self-control, indicating a strong moral component. Individuals felt the obligation to be healthy. Moreover, health was something to be achieved through health-promoting behaviors. Similar to

Cornwell's (1984) findings, an "ethic of health" was likened to the work ethic. Attaining health required an active choice, commitment to being healthy, a sense of discipline, setting priorities, and being in control of one's daily circumstances. Crawford (1984, p. 70) suggested, "In an increasingly 'healthist' culture, healthy behavior has become a moral duty and illness an individual moral failing." He linked this mandate for control with the current cultural climate in which notions of self and social reality are increasingly associated with symbols of control.

In Crawford's sample, blue collar workers, like middle-class respondents, spoke of health in terms of discipline, and related health to the work ethic. However, there was less emphasis by blue collar workers on the active pursuit of health. Health was seen as functional, permitting the body to fulfill work roles. Although the internalization of the social demand for control is a largely middle-class phenomenon, Crawford noted the dissemination of this theme to the working-class subjects. Moreover, the experience of work seemed to engender its own mandate for control, in terms of the regulated body movements for assembly line work, or demands on the body for shiftwork. For the blue collar worker, physical control over the body may be linked with job requirements, thus fulfilling the social mandate for being in control. For the middle-class subjects who lacked that element of physical control associated with work, the manifestation of control emerged in other ways, such as the health and fitness arena (Crawford, 1984, p. 100).

Responses in Crawford's study also included an opposing concept——health as release rather than health as control. Crawford described these two dimensions as forming a dialectic, an interplay between the themes of freedom and constraint which are inherent in capitalist societies. Health as release is:

> ...enjoying life without worry and without a self- denying load of constraints. Health is pursuing a free "lifestyle," individually chosen and externally obstructed by no one.... (Crawford, 1984, p. 84).

These two dimensions were not mutually exclusive; many subjects expressed both the belief in the importance of control, and yet a desire for release from discipline.

Crawford analyzed the dimensions of control and release in terms of cultural mandates which are also shaped by the structural conditions associated with the capitalist system. This system extols production on the one hand, and yet demands consumption on the other——one requiring discipline, the other pleasure-seeking. Crawford noted that this contradiction in structure leads to a conflict in experience. Crawford concluded that health is "a metaphor for generalized well-being," with two opposing mandates central to that well-being——control and release (Crawford, 1984, p. 94). However, these cultural mandates do not totally determine notions of health; individuals ***interact*** uniquely with the cultural context:

> Dominant cultural notions shape our concepts of health in complex relations with meanings that emerge from concrete physical-emotional-social experiences.... The body...is also a site for resistance to and transformation of those systems of meaning. Cultural meanings are not only shared or given; they are fragmented and contested. (Crawford, 1984, p. 95).

SUMMARY

The studies presented have covered many aspects related to lay perspectives on health. Similarities and disparities have been noted, between subjects of different cultures, occupational categories, and different ages. A moral mandate to be healthy emerged as an important dimension. Medical knowledge and medical viewpoints were found to play a part in lay perspectives, but were not found to dominate those perspectives. General agreement exists as to the multidimensionality of health, and the importance of considering the context in which health is experienced. Several studies (Crawford, 1984; Cornwell, 1984; Herzlich and Pierret, 1986) mentioned work as an important contextual element, but

none of the studies reviewed have explored the relationship of the work context to lay perspectives on health.

IMPLICATIONS FOR FURTHER STUDY

Clearly many questions need to be answered regarding lay conceptions of health in American people, and how those conceptions relate to the social context, including the work setting. Much of the literature has focused more heavily on conceptions of illness, with much less attention to how people see health and what they do to achieve health. Approaches applied to the study of illness can be adapted readily to the study of health. These issues can best be studied by considering the total context of the subjects' health. In the studies reviewed, age, socio-economic status, the external social structure, culture, and life experiences are just a few of the variables seen as contributory to conceptions of health. Workers' views of health have not been explored extensively. The worksite offers a prime site for examining effects of the external social milieu on conceptions of health, and health status of workers.

Chapter 4
METHODOLOGY

Research on health discussed in previous chapters has indicated the need to explore the health perceptions and ideas of lay people; the potential significance of the work setting has also been addressed. This study was designed to explore the following research questions:

1) Within the context of a specific work setting, how do workers perceive their own health?

2) What do workers perceive as predominant determinants of, or influences on health?

3) Are the workers' health perceptions influenced by the structure of work and the cultural matrix of the work setting? If so, in what ways?

SELECTION OF A SETTING

A specific work setting was selected, in order to present a view of workers' perceptions of health, as seen against a background of similar structural conditions of work——including management, personnel policies, types of work, and a common work culture. A manufacturing plant in rural California was selected. (See Ch. 5 for a full description of the setting). Blue collar workers at this plant were selected for the focus, as prior studies have found these workers to be at potentially the highest risk for health problems resulting from the work/health interface, yet few studies have focused on this population (Fisher, 1985).

The setting selected was one of convenience, a factory which allowed access to a large number of blue collar workers. The researcher had an established professional relationship in the factory, as a registered nurse working with an employee health promotion program. The company was willing to allow access to workers in the setting, permitting the interview of twenty workers. In addition,

several sets of quantitative health and absenteeism data were available on the workers. It was initially anticipated that these data could be correlated with the qualitative responses and integrated fully in analysis. However, as secondary data collected over a two year period for reasons other than research, the necessary controls over data collection methods and bias were not possible. Because of the voluntary nature of many of the measures, data were incomplete on many of the respondents, and self-selection was presumed to have a major effect on the data available. Therefore, these data were used where possible to help *inform* the qualitative analysis, and to give some measure of comparison to other blue collar groups, but were not considered as an integral part of the study.

THE ROLE OF THE RESEARCHER

I was involved with the health promotion program at this plant from its inception, with the title "Health Promotion Nurse." Usually, contact at the plant was one 8-hour day per week. In this capacity, I had contact with many of the employees, ranging from casual encounters to structured classes, meetings, and individual counseling sessions. All contacts were by employee choice, except for an introduction to the program, which was conducted at mandatory crew meetings attended by most employees. The program was totally open to all employees, requiring no initiation or membership fee. The researcher was known to many of the workers at the time of the study; however, many others had no prior contact with the researcher or the other HPP staff.

CONDUCTING RESEARCH IN THE SETTING

Gaining entree to the plant for conducting this research was not difficult, given the established relationship between the investigator and the plant personnel. The personnel director approved the study and granted permission to interview workers

at the plant on work-time, provided that the interviews would not actually interfere with crucial work. This determination was made in each case by the first-line supervisor. For example, warehouse workers could be interviewed at times when the loading docks were not full; assembly-line workers were interviewed during their two hours 'off-line.'

Prior approval for the design and conduct of the study was obtained from the Human Subjects Review Committee of the University of California, San Francisco. In addition, permission was obtained from the HPP director for access to records maintained by the health promotion staff.

QUALITATIVE METHODOLOGY

The grounded theory method of research (Glaser and Strauss, 1967; Strauss, 1987) was selected to explore an area that has been little explored——the subjective experience of health——to begin the elaboration of theory grounded in those experiences. The grounded theory process involves simultaneous data collection and data analysis, with the process of data collection constantly informed and modified by preliminary analytic premises. Analysis proceeds through the process of constant comparisons of emerging data, coding the data, and writing memos describing potential relationships or 'hunches' about the data, as well as generating further questions about the data. These processes, as described by Strauss (1987) involve induction, deduction and verification, eventually yielding one or more core categories which provide understanding of the phenomena of interest.

Sampling

The sampling technique for the grounded theory method is labeled theoretical sampling. In this process, after initial data collection and data analysis, further sampling is guided by the emerging analysis, to test preliminary hypotheses, to

elaborate emerging concepts, or to refine categories. The application of this technique was limited, due to time constraints of the study, and the need to complete employee interviews within a three-month period. Initial selection of the sample employed strategies described by Schatzman and Strauss (1973) known as selective sampling, based on pragmatic sampling decisions made prior to initiation of data collection. Given the desire to know as much as possible about the perspectives of blue collar workers, within the context of work, a single site was chosen which allowed access to a large number of workers, functioning within a common work context. Therefore, one factory setting was chosen which provided access to over 300 blue collar workers.

The workers themselves were ascertained to be the major source for the data needed; a sample of twenty workers was established, a priori, as a reasonable number to begin the process, and a number acceptable to management, who allowed access to the workers on work-time. Given prior knowledge of differences between the different work areas of the plant, (described in Chapter 5) sampling was to be done from each of the areas of production, maintenance, and warehouse. Variation in age ranges, and in gender were part of the initial sampling plan. (Prior studies on general health perceptions have focused more often on female subjects; studies on blue collar health have focused primarily on males). Given the racial homogeneity of the plant, no efforts were made to examine ethnic differences in health conceptions. To allow for differences in conceptions of those who may have been active participants in the health promotion program, workers who had been active were included, as well as workers who had not.

Two workers were chosen as informants to pilot test the interview guide. These workers were known to the researcher and were perceived to be willing to provide feedback on the structure of the interviews. Following positive responses from these two subjects, the next two subjects were volunteers from an idle crew of

warehouse workers. As six of the eight crewmen conspicuously did *not* volunteer for the study, this technique for recruiting subjects was quickly abandoned. All other subjects were selected first, based on theoretical and situational factors described below, and then personally invited to participate. No workers approached in this fashion declined to participate. However, two who were willing to participate were subsequently unable to because of schedule conflicts or unanticipated events demanding their attention on the production line.

As data collection proceeded, sampling was guided by theoretical questions. The trajectory of aging and its relationship with health conceptions was noted early to be of central importance to health conceptions. Thus, age variation in the sample became an even more crucial sampling dimension. Parental status also appeared to have early linkages with how the workers perceived and dealt with health issues. Thus, subsequent interviewees were selected to achieve a mix of single parents and two-parent families, as well as those with no children. Three subjects were selected because of known health problems, to determine potential relationships of known health problems to health conceptions. Others were selected because of their overt attempts to work on their health concerns, compared with others who seemed to not be involved with such concerns.

Within the limitations of time and the number who could be interviewed, sampling decisions made on a daily basis were informed by theoretical decisions, but other factors entered as well. For example, on a given day of interviewing, I would be sensitized to the need to find a female, an older worker, a worker with children, and/or a worker from a specific crew or work area. The workers who were available for interview that day depended on the day's work schedules, and the willingness and ability of the first-line manager to free a specific worker. The first-line managers became useful consultants in the process of sample selection. (This helpfulness was partially established prior to the study, as part of the health

promotion program, as managers were accustomed to arranging times when certain workers could be relieved from work to go to classes or counseling appointments with the HPP staff). Generally, the manager would consult with me, using his crew list for the day, indicating who was 'off-line' at certain times, or who could be relieved for an hour. The manager would often volunteer brief vignettes about the workers, such as "x is in his thirties, and has a couple of kids. I don't think he's been to any of the HPP classes..." From the manager's list of possible subjects, several were selected, contacted and arrangements made between the worker and the manager for a specific time for the interview to take place. Thus, decisions made on a partially theoretical basis were always constrained, in part, by the exigencies of the work situation. This was most overt in the area of production. Maintenance workers were usually autonomous enough to arrange their own schedules around an interview time. Warehouse workers also were able to arrange their own interview times, when no trucks were on the dock to be loaded.

The process of theoretical sampling was facilitated by a mid-point 'stock-taking' (Finch and Mason, 1990) after approximately half of the interviews were complete. Such stock-taking revealed the need to seek more female informants of various ages and parental status, and to get access to more 'hot end' workers.

It should be noted that theoretical sampling in this study was limited to selection of broad types of cases. However, it could never be predicted what type of actual situations (or 'instances') the worker would represent. This phenomenon has been noted by Finch and Mason (1990). The process of data analysis made use of the variability of situations presented by each worker, as a sub-element of sampling *after* interviews had already been completed. For example, as health identity emerged as a central theme, it became important to find situations where workers described their health as being less than 'good.' The interviews were re-analyzed to find the occurrence of such instances, without seeking out more subjects. Similarly,

in examining work context, it became important to examine the relationship of worker's viewpoints (about hazards in the work setting) to their duration of employment. This dimension was not an element of initial sampling, but in retrospective analysis, workers with thirteen years' experience could be compared with those who had less than one year. Thus, the twenty cases fortuitously provided a much wider range of *situational* variation than could have been planned for in the selective and theoretical sampling approaches. (Such serendipitous situational variability is one advantage of the process of unstructured interviews, which allow a large amount of data to be uncovered, which may later turn out to be highly relevant to an emerging theme).

Sampling thus was systematic, theoretically informed, and based on a continuous decision-making process (as described by Finch and Mason, 1990) but partially constrained by situational factors inherent in the work setting, and in time limitations. The resulting sample provided a wide range of variation along several dimensions. Interestingly, the sample also proved to be fairly representative of the blue collar population at the plant (see Chapter 5). The contextual characteristics of the study were further informed by the researcher's prior work experience in the setting, and rounded out by interviews with management and medical/health staff.

Interview Process

Interviews were conducted in three different areas. All but two of the interviews were conducted in a small conference room, familiar to all of the workers. The room was isolated from the main production areas, on the second floor of the plant, in an area used for classes and meetings. Interviews were scheduled on days when there were no other classes or crew meetings in this area, so few people ventured into the area. The room was fully air conditioned, and equipped with a large table and padded arm chairs. The door had a small window,

but interviews were conducted in a corner of the room where the respondent could not be seen from outside the room during the interview. Two other rooms were used for two subjects. One was a small office in the maintenance area, and the other was a small office in the warehouse area. Both of these rooms were quiet and comfortable; however they were not as isolated from the work areas. Each of these offices had windows to the outside work area. However, the windows did not appear to distract the respondents, who were accustomed to functioning in these offices. The workers' responses seemed candid in each setting.

An outstanding feature of the interview, from the workers' points of view, was the fact that it was on work time. Workers whose job functions were scheduled by others were often quite content to let the interview last as long as possible. Those with more autonomy in their jobs, or who felt they were critical for certain functions, often watched the clock, to be sure they were not in the interview for more than the time they had allotted.

At the beginning of the interview session, the study was briefly explained, and a consent form was signed (Appendix A). All interviews were tape recorded, with permission. No workers refused to be recorded, and few seemed bothered by it. In several instances, when discussing highly personal issues or information which was perceived as possibly damaging if management became aware of it, subjects requested the tape be turned off. In one instance, the end of an interview was erased while the employee watched, as he became concerned about the possible implications if anyone else did hear the tape. In general, there was little concern expressed about the interview topics being highly personal or invasive, and little apparent distrust. Most seemed to enjoy having an hour of sitting and an opportunity to talk about their viewpoints.

Interviews were conducted using an interview guide with open-ended questions (Appendix B), with probes used when needed. The questions were derived from

prior literature review of studies on health conceptions and of studies linking work and health. Broad questions, designed to elicit the relationship of health to other aspects of the respondents' lives were used to open the interview.

Midway through the interviews, preliminary analysis indicated some changes needed in the interview format. The interviews often lasted longer than an hour, which exceeded the generosity of the plant in allowing the interviews to occur on worktime. The process needed to be streamlined, to avoid repetitive answers. In addition, it was determined that several of the questions were confusing to the workers, or had little relevance to them. Other questions were deemed to be potentially more productive and were substituted. The following changes were made in the interview format. Both forms of the interview guide are included in Appendix B, under Interview Guide A and Interview Guide B.)

The question (A4) "What determines whether or not a person is healthy?" was rather vague for the workers; some responded in terms of how one could tell if someone was healthy, others in terms of definitions of health. The question was rephrased to elicit definitions of good health, and then to probe into determinants: (B2). "What is good health? (How would you define or describe it?)"; and (B5). "What makes a person healthy?" (B7) "What do you base [your rating of health] on? What criteria do you use to measure health?" was added to elicit more specific descriptions of one's own health rating. This question became useful for analyzing parameters included in health identity.

Questions related to prior health were rephrased to let the respondent place the values on comparisons with prior health, whether it was better or worse, and to eliminate the repetitive responses generated with questions 6, 7, and 8. Therefore, question (A6). "Have you been more healthy than you are now? In what way? What do you think has changed?" became (B8). "How does your health now compare to your health in the past?"

Questions about recent doctor's visits were not highly relevant for this sample. Many could not remember, due to not having frequent doctor visits, or the response alluded to the annual physical exam. The question as to whether they had any health problems seemed sufficient to elicit the most relevant information. This question covered problems of enough concern to require a visit a physician, as well as other problems which did not. Thus, question (A13) "When was your last doctor's visit? What kind of problem was the visit for?" was omitted. In its place a question was asked about the perception of information gained from the yearly physical and Health Risk Assessment: "Have you had the HRA (plant physical) in the past 2 years? Did it indicate any areas you need to change?"

The question on views of others about health ([A26] "Do you think your views about health are pretty much like the views of the people you work with?" was difficult for the workers to answer. Clearly, it was not a topic that they thought about often. It was answerable in terms of work conditions related to health, but usually not to other health conditions. Workers were reluctant to project how others might see things. This question was omitted. In its place, a question on health as a topic of conversation with co-workers was inserted: (B27) "Do you and your co-workers discuss health issues?"

Of course, the interview questions merely guided the process. The workers often generated topics which were of greater relevance to them. The semi-structured guide did help to assure that areas presumed at the outset to be of relevance to the topic were mentioned to each worker for response.

Tapes were transcribed by the researcher. In initial interviews, poor sound quality was a problem. This was corrected by using two recording instruments and an external microphone. Typed transcripts were then coded for emergent themes, using the constant comparative method described by Glaser and Strauss (1967) in a grounded theory approach.

Coding and Analysis

Preliminary coding began concurrently with the interview process, as the researcher interacted with the participant and the emerging data. Notes taken during the interviews were used to remind the researcher of interesting points worthy of follow-up during subsequent analysis. Tapes were transcribed by the researcher, with coding continuing during this process. However, given the amount of time involved in transcription, and the time constraints of the study, interviews were completed before all of the interviews were transcribed. Thus, theoretical sampling was limited to the initial hunches garnered by the researcher during analysis of the full transcriptions of eleven of the interviews. Full analysis of the 450 pages of single-spaced data occurred well beyond the brief sampling time frame.

Initial codes and emerging categories were later refined through ongoing input from the dissertation adviser (Olesen) as well as a qualitative research discussion group. Concurrently, prior research studies were reviewed and reanalyzed as data, becoming an added component in the constant comparative process.

The coding process began with 'open' coding, as described by Strauss (1987), proceeding through 'axial' and 'selective' coding, as a core category ("health identity") emerged. Throughout, the coding was guided by a coding paradigm, analyzing each code for conditions (e.g., conditions for development of health identity, for stability and for change), interactions among the actors (e.g. for reinforcing one's health identity, or determining 'normality,') strategies used by the actors (e.g. to process potential threats to health identity), and consequences (e.g. conflict, stability, or restructuring health identity) (Strauss, 1987). As "health identity" emerged as a major analytic category, further coding focused on elaboration of this theme, until the coding resulted in a rather dense explication of the theme, with further analysis revealing no new components, i.e., the point of

presumed "saturation." (Strauss, 1987, p. 35). "Health identity" as a core category met Strauss' (1987) criteria for such a central category, including its centrality in the data, its frequency, its relationship to other categories (such as health conceptions in general, and to health hazards in the workplace) and its implications for more general theory on identity.

Time Frame

The interviews were completed within a 3 month period. (Due to extremely heavy production demands at the plant during the course of the study, no interviews were conducted for a six week period in the middle of the study). Most interviews for a specific crew were done within a 2-day period. This was to eliminate the tendency for crew members to talk with one another, and to spread information about the study questions to others. None of the subjects seemed to have advance information about the study or the format of the interview. The existence of the study did not seem to become a significant topic on the 'grapevine.' The interviews were conducted in as short a time as possible, to prevent changes in the plant or the health promotion program from affecting the subjects.

QUANTITATIVE DATA

The health promotion staff maintained a data file on employees who participated in program offerings. The file included results of psychological and social health assessments and partial results of computerized health risk appraisals which assessed major risk factors for common health problems as well as health-related behaviors. Portions of these data were used in this study to provide background on the population, and to give some measure of comparison to other blue collar groups. Due to the secondary nature of the data, and lack of controls in data collection, these data were not considered as an integral part of the study.

All data used in the study were coded and could not be linked with individuals. For the twenty workers who participated in the interviews, specific permission was obtained to access their individual data and link the quantitative findings with the interview findings. (Consent form is in Appendix A). These data are described below.

Measures of Physical Health

Health risk appraisal data were collected by professional medical staff as part of the plant's optional yearly physical. (Approximately 80 percent of the total plant population participated in the health screenings.) Screenings completed between June 1986 and June 1988 were included in the sample. If a worker had completed two screenings during this period, the earliest screening was used. Physical data included blood pressure and cholesterol, available for 239 employees.

The health risk appraisal tool, "Healthier People," was developed by the Carter Center of Emory University (1988). The public domain computer software is based on epidemiologic data from the Centers for Disease Control, the Public Health Service and many longitudinal health studies. The purpose of the tool is to "identify precursors associated with premature death or serious illness, and to quantify their probable impact for each individual participant." (Carter Center of Emory University, 1988, p. 1.1-1).

Data available from this tool included an assessment of body weight compared to the Metropolitan weight tables, lifestyle recommendations on several health-related behaviors, and a total 'Wellness' score. Lifestyle recommendations included suggestions such as the need to lose weight (if more than 20 percent overweight), to stop smoking, to increase exercise (to achieve at least 20 minutes of aerobic exercise three times a week), and warnings on risks of excessive alcohol consumption (if more than 14 drinks per week) or frequent use of drugs for

relaxation. The wellness score was based on risks indicated by the health history, lifestyle data, blood pressure and cholesterol. The wellness scores ranged from 0 to 100, with a higher score indicating a higher degree of wellness. Records with these data were available for 214 workers.

Illness Days

Attendance records on all blue collar workers for the year 1987 were included as background data (n=331). All absences recorded as illness were counted as illness days. (Extended medical leaves of absence were not included in the total count of illness days, to keep the measure one of day-to-day functionality for work, as opposed to a measure of long-term chronic conditions and to omit pregnancy leaves and leaves for elective surgery). Absenteeism data are typically beset with inaccuracies and bias. Qualitative responses indicated the degree of complexity in acquiring reliable data on actual illness occurrence. Some employees noted they would work, even though ill, or use vacation time when ill, to maintain perfect attendance records, versus others who might use sick days even when not ill. Thus, the illness days data were recognized at the outset to be only a rough measure of illness episodes, which must be considered in the context of qualitative responses.

Data Analysis

Means, ranges and frequencies were calculated for all variables for the total population of blue collar employees. A second calculation was performed for the sample of 20 workers who were interviewed. Cross tabulations were performed on several variables to determine associations among variables. Other than providing background data on the representativeness of the sample for the larger population of blue collar workers, data analysis was not particularly useful in contributing to understanding of the research questions under study. Thus, extensive quantitative

results are not included here. However, a few variables did provide interesting confirmation or contrasts with qualitative responses. These variables are discussed in the qualitative analysis sections. Variables which help to characterize the sample and population are discussed in Chapter 5.

Chapter 5
DESCRIPTION OF THE SETTING AND SAMPLE

In order to consider workers' conceptions and perceptions of health as they relate to the work setting, the context of that setting must be considered. The following section provides an overview of certain key areas of the chosen work setting, presumed at the outset to be important in relation to dimensions of health of blue collar workers.

The data included in the following overview derive from the researcher's experience at the plant over a four year period, prior to and during the time interviews were conducted. Field notes were maintained and interviews were conducted with key staff as part of the current study.

LOCATION

The setting is a manufacturing plant in rural California, employing 400-500 workers, depending on seasonal demands for the product. The employed population is generally stated as 450. The plant serves as the major employer in this rural area. Workers commute to the area from many small towns in the valley or from a larger city (population 60,000) which is one hour away. Given the economy in the area, jobs at the plant are in demand and valued. The turnover rate at the plant is less than 2 percent.

PHYSICAL LAYOUT

The plant is isolated in the middle of farm fields, covering 14 acres under one roof. It lies in sight of a major interstate highway. The grounds are well maintained, with green lawns in front. The plant itself is of plain, 'factory' decor, tidy but not overly attractive. A 'breakroom' is provided for all the employees for

meal and coffee breaks. This area is a central gathering area for employees. Four major work areas are evident: the office area for managers and clerical staff; the 'cold end,' consisting of the major portion of the assembly line; the 'hot end,' containing high tech machinery involved in chemical mixing and heating processes; and the warehouse, where the product is stored until distributed.

THE WORK ORGANIZATION

The plant management prides itself on participative management, and on maintaining a union-free workplace. Within recent years, a profit-sharing plan has been established. Workers have consistently earned substantial yearly dividends from this plan. There appears to be no current movement to unionize the plant, though there have been efforts in the past. For the most part, the workers seem to feel very well paid for their efforts. Many feel involved in areas of decision-making through active task forces. However, some express disgruntlement with the participative management system. The plant is considered by management to have very high productivity, and a good safety record.

DIVISION OF LABOR

The workers are classified as salaried or hourly employees. Only hourly employees were included in this study, from the areas of production, maintenance, and the warehouse. This excluded first-line supervisors and other management personnel, to keep the focus on the blue collar worker.

Production

The majority of workers at the plant are employed in production. There are four crews of approximately 60 workers each. Production is continuous at the plant——24 hours a day, and through all holidays. The four crews rotate on a

predetermined schedule to cover all time slots. The 12-hour rotation consists of 2 or 3 day shifts, 2 or 3 days off, then 2 or 3 night shifts. Every month each crew receives a long break of several days. Though some do not like the 12-hour rotations, the majority favor it over the prior schedule which involved seven day stints on each shift (days, evenings, nights) with one or two day breaks in between each shift change.

Production encompasses the 'cold end,' noted for predominantly assembly line tasks, and the 'hot end,' which involves high temperature processes and work with complex computerized machinery requiring a high degree of training and vigilance. Cold end workers comprise the bulk of the production staff, in a job category known as 'inspector/packer.' Their main responsibilities are to remove 'bats' of the product from the assembly line, inspect it for quality, and 'bag' the bats for shipping. This job is broken down into several discreet tasks, which are rotated among the workers every two hours. In addition, these workers may have many different tasks throughout the 12-hour shifts that do not involve assembly line work, such as 'clean up.' Generally, they are 'on line' (the assembly line) for 2 hours, take a 20 minute break, and then have an off-line job until the next 2 hour time period is up, when they go back on-line for 2 more hours. The inspector-packer job is not highly technical. It is usually the point of entry into the plant. Almost all workers in other areas started out there and moved up. The job is characterized predominantly by tedium, though it can be physically demanding. Workers are on their feet for long periods of time, doing repetitive movements, and moving bags which weigh 50 to 70 pounds.

Hot end workers work in the hottest area of the plant, around molten compounds and hazardous, noisy machinery. The area is isolated, and entry is restricted. Anyone walking into the area must wear double hearing protection and hard hats. These can only be removed by the hot end worker when inside two small

glassed-in offices. Here, the workers can monitor the machines and computer equipment visually. The offices are air conditioned and quiet enough for conversation. When out with the equipment, workers must primarily communicate by hand signals. Unlike the cold end workers, hot end workers are highly trained specialists. They have specific functions which they perform throughout the shift. The job is considered to be challenging, and workers here feel there is a lot to learn about the machines. However, when everything is functioning normally, the monitoring functions may become tedious. Every two hours, hot end workers may leave the area for short breaks. High prestige is accorded to the hot end jobs by many at the plant, due to the extensive training required, and higher pay. However, it also is considered by many to be more hazardous.

Production workers are paid for the full 12 hours of their time at the plant, with lunch break occurring on paid company time. Consequently, these workers cannot leave the plant on their breaks, even to walk outside on the grounds. They must be in the break room for the major part of their breaks, or within hearing of paging speakers and emergency alarms. When any problem occurs on the assembly line, all workers are needed immediately to help correct the problem, so even on breaks, they are 'on-call' to the assembly line.

Maintenance

The maintenance department is one crew, of about 60 workers. They maintain the machines, implement engineering changes, and maintain the general operations at the plant. Many of the workers in this area were previously inspector-packers, but have moved up by virtue of mechanical skill or specialized training. Some jobs in the maintenance department do not involve direct maintenance or a high degree

of mechanical training; these 'utility' jobs keep the machine environment clean. These are considered 'dirty' jobs, but many of the female workers gravitate to them because of the desirable hours.

The maintenance department does not work on weekends and does not rotate shifts. They work day shifts only, five days a week. Maintenance workers have a great deal of mobility throughout the plant, are involved with many different aspects of plant function, and have a job that is variable from day to day. Stressful times occur when a major machine is malfunctioning, leading to a cessation of production. At those times, pressure is on the maintenance team to restore production as quickly as possible. At other times, the pace of maintenance workers is more self-determined and does not appear to be stressful.

Maintenance workers have more freedom to determine their daily activities than other workers. Breaks are taken at their own convenience. Unlike the production workers, they are able to leave the plant during breaks. Thus, in contrast with production workers, these workers have a standard day shift, regular sleeping hours and fewer constraints in the work environment.

Warehouse

The warehouse is located away from the central manufacturing area of the plant. The warehouse consists of a loading dock and a huge storage area for the products to be shipped. There is a central office and breakroom for the warehouse workers in their work area. This permits them to stay away from the central plant operations. Thus, they have minimal interaction with the rest of the employees and the actual manufacturing processes. The warehouse crews load and unload trucks, 24 hours a day, five days a week. The workers are permanently assigned to one of three crews which rotate to cover all the work periods. For about two years, the warehouse has been on rotating 12-hour shifts, from 8 A.M. to 8 P.M., and 8 P.M.

to 8 A.M. The 12-hour shift and the pattern of rotation was decided on by an employee task force and then voted in by the workers.

Warehouse workers attain their positions after several years of working at the plant in other capacities. The job is considered the best in the plant by these workers, who have experienced most of the other job categories. Job turnover here is very low. The job is physically demanding and tedious at times. Slack periods occur when no trucks are at the dock, counterposed with stressful periods when there are many trucks with anxious drivers waiting to be loaded. With a recent sustained increase in production, and an aggressive sales and marketing campaign, the slack periods have occurred less often. The warehouse workers have consistently broken their own monthly records for amount of product loaded, with no additional staff.

The absenteeism in warehouse has decreased over the past year, while that of the rest of the plant has increased. The decrease in absenteeism has been attributed by management to the heavy workload over the past year. An absence of one worker results in a heavier workload for the others; thus each individual considers himself a vital part of the crew and is less likely to call in sick unless truly ill.

Employee Health

Employee health falls under the responsibility of the employee relations department, with a small medical staff consisting of a registered nurse and a part-time physician. The medical department provides onsite first aid and medical consultation for minor acute illness. Yearly pulmonary function screening and hearing testing are conducted for certain workers. Employee assistance referrals for drug and alcohol problems are handled as well.

The Health Promotion Program

Two years prior to this study, management established a contract with a health agency outside the plant, to establish a health promotion program at the plant. It appears this move was predominantly at the instigation of the personnel director, who was concerned with the number of stress-related problems which weren't being handled effectively through existing mechanisms. The program selected was based on a multidimensional model, which included health risk appraisals, an extensive physical, and on-site specialists in nutrition, exercise, relaxation techniques, stress management, and counseling. The mode of delivery was through group classes and individual counseling. Health promotion staff maintained their offices and records in the sponsoring hospital, spending two days a week in the plant.

During the first two years, classes were conducted on healthy eating, getting started in exercise programs, relaxation techniques, stress management techniques, adjusting to 12-hour shifts, dealing with depression, effective communication, smoking cessation, and maintaining a healthy blood pressure. Many of the classes were offered 4 times a day, 4 days a month, to cover all crew rotations, and all break times in the plant. Almost all were offered on regular work time. Workers signed up in advance, and if the work scheduled allowed, the supervisor released the workers for a specific class time. Efforts to increase employee interest and involvement outside of structured classes consisted of blood pressure screening in the breakroom, distribution of a weekly bulletin on health related topics, a weight loss contest, a blood pressure contest, cholesterol screenings, and a raffle for a no-smoking promotion.

This program is not typical of many worksite programs, by virtue of its heavy involvement of blue collar workers, who usually are poorly represented in worksite programs (Pechter, 1987). A major element is the ability of the worker to

participate on work time; another factor is the availability of HPP staff and classes in areas frequented by the blue collar workers. This avoids the 'carpeted floor' syndrome where blue collar workers feel uncomfortable venturing into the pristine realms of management, leading to low levels of blue collar participation in some programs (Pechter, 1987).

HEALTH AND SAFETY

Like most factories, the plant in which this study was conducted must deal to some extent with the health and safety concerns of the workers and regulatory agencies. Management efforts to safeguard the workers are quite apparent, and perhaps more overt than in most companies, due to recent litigation against the parent company for worker-related disease caused by another product which is not manufactured in this plant.

Work Hazards

The manufacturing process in this plant involves: work with large, automated machines, high temperature processes, the use of chemicals, by-products of fumes, dust and air-borne fibers; work in extreme temperatures; the use of motorized vehicles to move large bags of the product from the production line to the warehouse and to loading docks; jobs characterized by repetitive motions of lifting and twisting; noise from machinery; a machine-paced production line; and rotating 12-hour shifts for most workers. The product itself carries potential, though as of yet uncertain, long-range hazards. It definitely causes skin irritation in some workers. Speculation on pulmonary effects such as lung cancer or pulmonary fibrosis has surrounded this product. In addition, one must assume the typical stresses found in work settings, between workers and supervisors and amongst co-workers.

Management Approaches to Work Hazards

Management approaches to these definite or possible health concerns are multiple, including education and training, and regulations.

Education

Information is managed through many routes. New workers are given a two-week class-room training period, in which pamphlets are distributed containing information about the potential hazards and safeguards necessary for the product. Management periodically shows video tapes produced by the parent corporation which discuss research findings on the health hazards of the product. The presentations note concerns with ***potential*** hazards of the product, and summarize findings from laboratory research. The general conclusion presented is that there is no ***definitive*** evidence of substantial risk from the product, and that research continues. The videotapes emphasize that the research has been conducted by independent researchers, as opposed to company scientists. Safety precautions are explicitly outlined.

Communication

Each crew attends mandatory monthly safety meetings to discuss current plant concerns and problems. As part of participatory management, the workers are included on the safety committee, which analyzes plant problems and procedures. The plant manager holds monthly meetings with employee representatives, where concerns may be expressed. The plant manager answers employee questions in writing, displayed on a central bulletin board. The plant keeps tallies of the number of injuries resulting in lost work time, crew by crew. These are recorded each week in the plant newsletter. Safety problems and critical injuries occurring in

sister plants are also posted, frequently along with proposed changes in policy or procedure to prevent such injuries from occurring in this plant. The results of plant testing for air quality, water quality and many other safety parameters are posted as well, along with the company's steps to resolve problems which are apparent on inspections. The central bulletin board also contains procedures by which an employee can report safety violations and concerns about work hazards.

Regulations

Precautions, warnings, and restrictions are clearly posted in employee work areas. For example, protective eyewear must be worn at all times in the working areas of the plant; signs are posted prominently. The workers themselves are vigilant in reminding visitors walking through the plant to put on safety glasses. Receptacles with fresh ear plugs and masks are evident at many work stations. When entering the 'hot end' where double hearing protection, hard hats and masks are required, large signs warn of the danger and forbid entry without the appropriate safety apparel. There are regulations concerning the type of shoes that must be worn, to avoid foot injuries.

In recent years, the company began an intensive campaign to increase the employees' awareness of safety concerns. A large sign is posted at the plant entrance and in various places throughout the plant, expressing the management's philosophy of safety:

> We believe everyone is responsible for their own safety and the safety of others. Accidents are preventable when people are alert to the hazards of the workplace. These hazards can be effectively safeguarded. It follows that preventing accidents must be everyone's primary responsibility. Vigilant leadership coupled with high plantwide involvement will result in a truly safe workplace.

The safety director described management's concern and approach to plant safety over the past few years, describing a proactive response to employee

concerns by encouraging them to speak up about safety problems. In some instances, machinery was shut down in response to employee concerns, enhancing management's safety image of being concerned about safety.

The plant recently received an award from the parent company for achieving 500,000 man hours without an injury leading to lost work time. Although the safety record has deteriorated since then, management's feeling is that 95% of the accidents now are due to "a person just not thinking about what they're doing. It's not the machinery." (This type of injury is referred to as 'dumb injuries' by both management and workers).

Types of Injuries and Work Risks

According to the safety director, the incidence of injuries does not show any pattern of occurrence that can be attributed to shiftwork, or to the recent conversion to 12-hour shifts, which some felt might lead to more fatigue-related injuries.

The most common types of injury that are considered work-related are musculoskeletal: neck, shoulder and back problems from lifting and twisting; and tendonitis and carpal tunnel syndrome, related to repetitive folding motions. The back injuries are seen by management as potentially preventable, if training were increased enough to actually change workers' habits. A specialist has been engaged through the health promotion program, to work with individuals in their work areas and work groups, to identify poor body mechanics and to determine alternate motions to perform specific functions with less risk of injury.

The risks of hearing damage in the hot end are of major concern to the safety director. The plant has regulations more stringent than those required by the parent company, requiring ***double*** hearing protection in the high risk areas. However, the safety director feels that workers are not as aware of that risk, as the damage may take a long time to develop. A few workers, however, did note concerns with the

risk of hearing loss. The medical department conducts yearly surveillance of workers' hearing.

An uncertain health outcome of working with chemicals involved in the manufacturing process is postulated to be respiratory disease, including the onset of asthma, pulmonary fibrosis, and cancer. During the time of this study, media reports focused on respiratory hazards, though noting the inconclusiveness of research reports. Those reports were highlighted by the recent development of restrictive airway disease in three workers in this plant. Two were labeled as work-related. The third case was equivocal according to the plant physician, and difficult to differentiate from similar occurrences of mature onset respiratory problems in the population at large. However, these cases have received much concern and discussion on the worker grapevine, and increased vigilance and examination of the chemical fume problem by management. An element of uncertainty surrounds the attribution of the problem as work-related. Alternate hypotheses were offered by the plant nurse who noted that the recent cases of airway disease occurred in two workers who were smokers. Two of the workers were not happy working at the plant, and had an associated history of other problems with illness or depression. She implied an interaction between job satisfaction and the incidence of work-related illness. The safety director noted the possibility of reaction to many of the different chemicals used in the process, but is not certain these elements could actually cause respiratory disease. He pointed out that probably two thousand people have worked around these substances at the plant with no problems.

Risks Related to Work Areas

The areas of greatest potential hazard are noted by the safety director to be the 'hot end' and the warehouse. The hot end is of concern due to the potential for getting caught in moving machinery. Despite the proximity of large gas burners

and molten compounds, burns are not really considered a major problem. Most burns are minor, requiring first aid only, and no lost-time injuries have occurred for burns. (Workers themselves mention burns as only minor concerns).

Despite the apparent higher risks in the hot end, workers do not generally turn down a chance to work there, with its higher pay, and more challenging, non-assembly line work. Workers may choose to "get out of the [product]" on the assembly line to avoid the itching and skin irritation it causes. Once they have achieved hot end positions (offered on the basis of seniority), few leave to go back to the assembly line, even if health problems develop. The safety director notes there are people who probably shouldn't be working in the hot end because of problems such as asthma. They adapt by using inhalers to control the symptoms. The plant is instituting stricter respirator protection for hot end workers, and increased testing for workers prior to being assigned to that area. Workers with a history of respiratory problems are no longer offered assignments there.

The general consensus on risks in the plant is that the hot end is subject to fumes, the cold end to fiber dust, and the warehouse to physical hazards. According to the safety director, the cold end is not perceived by management to be at particular risk for breathing problems from the dust, and workers are generally safe without masks, which are not required on the cold end. The warehouse poses risk because of overhead lifting while loading trucks. The warehouse workers experience the highest proportion of work injuries, compared to other areas of the plant.

Mental Health Concerns

The greatest health concerns at the plant, in the view of the safety director, are not in the production process itself, but in the "emotional, stress area," attributed to a large increase in production demands without a concurrent increase in staff. In

addition, the company has major plans to renovate one section of the plant, which will cause temporary lay-offs during the renovation, as well as a future decrease in manpower needs as production will be more automated. Many workers have concerns about their future for employment, and many workers with seniority will have to assume less desirable jobs.

The director of the health promotion program sees the primary health problems of the workers as related to stress issues. Workers feel 'stuck,' depressed, and experience problems with identity and self esteem. Even physical problems such as back problems are seen as linked to the job environment and associated with stress.

Personnel Policies Related to Health

The plant does not hire smokers, and does not hire applicants who test positive on pre-employment drug screens. No other explicit restrictions on hiring were reported. In the year prior to this study, all smoking was banned on the plant premises, based on the confirmed increased risk for cigarette smokers to develop work-related respiratory disease. Some workers have quit smoking on their own or through company sponsored cessation programs. Some workers manage to smoke only on their time away from the plant. Others continue to smoke at work in secrecy, despite great risk to their job.

CHARACTERISTICS OF THE BLUE COLLAR POPULATION AND THE SAMPLE

Given the availability of several quantitative measures of health collected by the health promotion staff, it was possible to describe the characteristics of this population on several objective measures, and to ascertain the representativeness of the interview sample.

The twenty workers who were selected for interview reflected a mix of

convenience sampling as well as limited selective sampling. At the outset no effort was made to acquire a random sample from the worker population. Attention was given to achieving a mix of male and female workers, a broad age range, and representatives from each of the three main work areas of the plant. Twelve workers were from production, four from the warehouse and four from maintenance. Fifteen males (75%) and five females (25%) were interviewed (See Table 1). The mean age was 35.6, ranging from 21 to 56. One Hispanic and one black worker were interviewed. (The overall population is fairly homogeneous, with only 15% Spanish surnamed and .01% black, reflecting the composition of this rural community). Although the sample was not selected to be a random sample, the demographics of the sample were compared with the overall blue collar population of the plant, to determine the degree to which the sample could be presumed to be representative of the population. Comparisons are summarized in Table 1. Essentially, the male and female composition and the age ranges of the sample were comparable to the larger blue collar population at the plant. The sample had a slightly higher percentage of young workers, and a slightly lower representation of older workers.

Several objective health measures, such as blood pressure, cholesterol, weight, and number of illness days were also compared for the sample and the population. These data are summarized in Tables 2 and 3. The interview sample had a slightly higher mean number of illness days. Qualitative data from the interview sample indicate that the meaningfulness of illness data in general, as an objective measure of health status, may be highly suspect. Workers indicated instances where they came to work despite illness, in order to maintain perfect attendance records, as well as instances when they claimed illness to attend to family problems etc., which were not illness-related.

TABLE 1

DEMOGRAPHICS

		POPULATION *n*=331		SAMPLE *n*=20	
		n	Percent	*n*	Percent
SEX					
	MALE	258	77.9	15	75
	FEMALE	73	22.1	5	25
AGE CATEGORIES (years)					
	19-29	91	27.6	7	35
	30-39	133	40.3	8	40
	40-63	107	32.1	5	25
AGE (YEARS)					
	MEAN	35.9		35.6	
	RANGE	19-63		21-56	
	S.D.	9.49		10.09	

TABLE 2

ILLNESS DAYS FOR 1987

	POPULATION *n*=331	SAMPLE *n*=19*
MEAN	1.95	2.47
RANGE	0-22	0-8
S.D.	2.66	2.39

*One interview respondent was not employed for the full year.

TABLE 3

PHYSICAL HEALTH MEASURES

	POPULATION	SAMPLE
SYSTOLIC BLOOD PRESSURE (mm/Hg)	*n*=237	*n*=15
MEAN	126.7	122.6
RANGE	97-166	110-153
S.D.	12.99	12.25
DIASTOLIC BLOOD PRESSURE (mm/Hg)		
MEAN	79.4	75.4
RANGE	49-110	49-101
S.D.	11.25	12.6
INCIDENCE OF HYPERTENSION		
SYSTOLIC > 140mm Hg	*n*=44 (15.7%)	*n*=1 (6.7%)
DIASTOLIC > 90mm Hg	*n*=40 (13.9%)	*n*=2 (13%)
CHOLESTEROL (mg/dL)	*n*=239	*n*=15
MEAN	198	186
RANGE	109-319	111-263
S.D.	38.8	43.1
INCIDENCE OF ELEVATED CHOLESTEROL		
240-299 mg/dL	*n*=23 (8.8%)	*n*=3 (15%)
>300 mg/dL	*n*=4 (1.7%)	*n*=1 (5%)
INCIDENCE OF OVERWEIGHT		
OVERWEIGHT (20% above recommended)	*n*=165 (62.2%)	*n*=8 (57.1%)

Physical Health Measures

Physical health measures were collected as part of the voluntary yearly physicals offered at the plant. These data were available on a majority of employees. Because of missing data on some parameters, total numbers on each measure vary.

Blood Pressure

In the interview sample, blood pressure data were available for 15 workers. Their readings were similar to those of the population. The incidence of hypertension in this population was similar to findings in several studies, where ranges of 12.5 to 25.7 percent of workers were reported to have hypertension (Harris, Collins and Majure, 1986).

Cholesterol

Cholesterol readings were similar between the sample and the population. The incidence of cholesterol readings over 300 mg/dL were similar to those reported for other working populations (Harris, Collins and Majure, 1986).

Weight

Sixty-two percent of the population and 57 percent of the interview sample were reported to be twenty percent or greater above their desirable weight, based on the Metropolitan Life Insurance weight tables (Table 3). The weight measures in the population and the sample fit within ranges reported by Harris, Collins and Majure, (1986), although on the high side. Thus, this group may be more overweight than other working populations. As many of the workers, including females, are doing work that involves muscular development, the high percentage of overweight workers may be related to dense musculature as opposed to fat. Thus, comparisons with other groups of workers may not be valid for this parameter.

Health-Related Behaviors

Fifteen percent of the workers were smokers; 31 percent of the subsample were smokers. Novick et al. (1985) reported 41 percent of blue collar workers were smokers. Byrd (1989) reported that 21.3% of Californians smoke. The relatively smaller percentage of reported smokers in this study could be attributed to the smoking ban on the plant premises. Some workers quit smoking after the ban; those who continued may not be willing to reveal continuation of the habit out of fear for their jobs, even though they are only restricted from smoking at work. Both factors are probably operational in the relatively smaller number of reported smokers in this group of workers. Data from the interview sample indicate that several workers did quit smoking after the smoking ban.

Over half of the workers (54.8%) in the plant population who participated in the health risk appraisal do not exercise regularly at least three times a week, compared to 69% of the sample. Novick et al. (1985) reported comparable findings of 69% for their blue collar sample. Byrd (1989) reported that 53.2% of Californians do not exercise at least three times weekly. The qualitative responses provide some understanding of the lack of exercise in blue collar workers. Many of the workers in this sample consider the physical exertion in their jobs to be adequate for good health, and express little motivation for exercise outside of work. Others are quite active in their leisure lives, but do not necessarily consider their activities as exercise, and thus may under-report their exercise levels. Shift-workers indicated they found it difficult to incorporate regular exercise in a schedule shifting from 12-hour days to 12-hour nights.

DISCUSSION OF QUANTITATIVE FINDINGS

Findings from this study are not markedly different from findings of other studies of employees, indicating that this working population is not notably different

in terms of objective measures of health. Findings on the most objective measures——high blood pressure and severely elevated cholesterol——fit within ranges of several studies reported by Harris, Collins and Majure (1986). The blue collar workers as a whole, as well as the interview sample reflect a rather typical picture of the 'healthy' worker.

SUMMARY

The preceding extensive elaboration of the work context provided data which were critical in guiding qualitative analysis. This plant provides a circumscribed context for exploration of workers' conceptions of health. However, within that setting are several subcultures and diverse work areas that provide comparisons of certain factors, such as work constraints, shiftwork, and selected work hazards. Workers share exposure to common potential hazards to health, but the degree of exposure, the perceptions of exposure, and the potential array of responses to risks vary by work areas, and sometimes by crew.

Sub-research questions formed portions of the analytic process in dealing with the interaction of the work context with the workers' conceptions of health. These questions are listed below:

1) Given the different types of work, the different degrees of exposure to diverse hazards, differences in working conditions (such as shift rotations and differential forms of stress), and different work cultures on each crew, are there notable differences in health conceptions related to work area?

2) How have workers who have been working at the plant for many years approached the problem of work hazards, compared to newer employees?

3) How do incidents of work-related illness and injury affect a worker's perception of health and risk for potential health problems?

4) How do workers who choose to work in more hazardous areas of the plant approach the problem of potential health hazards?

5) How do the plant's policies and communications related to health, and the health promotion program's offerings affect conceptions of health?

6) Objective data on health measures indicate some health problems in workers, including hypertension, obesity, high cholesterol, smoking, and lack of adequate exercise. How do such findings relate to conceptions of health?

7) Given the many elements of social and physical constraints in the work setting, do the workers express concerns about social control in relation to their health?

A variety of health concerns emerge in the context of this specific plant, from the perspectives of management, medical personnel, and health promotion staff. The focus of the current study was the perceptions of blue collar workers in this setting, on health in general, and health as it relates to the work context. These issues were explored through in-depth interviews with twenty workers. Results are discussed in the following chapters.

Chapter 6
DIMENSIONS OF HEALTH

Interview responses of twenty workers were analyzed to provide insights into the ways in which blue collar workers perceive health. The research questions which guided data analysis were:

1) Within the context of a specific work setting, how do workers perceive their own health?

2) What do workers perceive as predominant determinants of, or influences on health?

3) Are the workers' health perceptions influenced by the structure of work and the cultural matrix of the work setting? If so, in what ways?

Current health literature offers a multitude of definitions of health, with definitions varying depending on the professional paradigm and the context (reviewed in Chapter 2). The viewpoints in this blue collar population reflect a similar diversity and multiplicity, with individuals often focusing on different dimensions of health, varying by phases in life trajectories or context of the discussion of health. Health, as perceived by the lay person is not a clear cut, unitary or static entity, as some more formal or professional definitions might indicate. Multiple factors are seen as influences on health; however, individuals perceive a great deal of control over many of these factors, or their responses to them. Moreover, health conceptions are highly interactive with the context of work. In this chapter, definitions of health provided by the workers are discussed, including variations between discussions of personal health versus general, abstract health definitions. The emergence of a key category, "health identity," is explored.

DEFINITIONS OF HEALTH

In the twenty interviews, definitions of health ranged from very broad, holistic definitions to narrow, specific ones. For example, a young production worker's definition embraced multiple themes in health:

> I think if you just talk to a person you can tell if they're healthy. Just their personality, their activities, if they have any. If they do have any, what they are. The way they look——appearance definitely. And of course, by if you get any physical results, any kind of testing, that'll tell you right there. [He discusses many physical attributes related to his conception of health——being in good shape, body building, regular exercise, but balances that view]. I've been talking a lot of physical, but I think it's a lot of——you have to be healthy mentally too. You have to have a good lifestyle, and friends and family. Social life is very important. That's healthy.

In this worker's elaboration of multiple components of health, it is clear that physical, mental, and social aspects are all integrated into his conceptions, exemplifying a mind-body-society perspective on the broad category of health. Health in others can be inferred from what they say, how they look, from their social relations and from what they do.

In contrast, another worker addressed health primarily in terms of not catching colds or flu very often, and being free of symptoms:

> I think a person is healthy if they're——like I know people, they have colds all the time, they get the flu constantly.... And I don't think a generally healthy person, you know, maybe like once a year gets the flu, like everyone else, and you know, maybe a cold every now and then or something. {Interviewer: So being healthy is pretty much not catching everything that comes along?} Yeah, [and] if you want to go for a walk, or something, you don't come back wheezing and coughing and gagging, because you smoke or whatever.

His views focus primarily on symptomatic (biomedical) criteria, with an allusion to behavior (not smoking) as the main way to tell if a person is healthy. In this case, health can be inferred from one's ***condition***, i.e. absence of symptoms, and ***what one does***, e.g. behavior related to health. This worker expressed rather minimal

criteria in describing health which seem most consistent with a 'functional' definition of health. The other eighteen respondents provided a range of responses in between these two examples. Most included mental as well as physical attributes as central to health.

No standard, all-inclusive criteria emerged for a definition of good health in this lay population. Despite presumed exposure to current fitness trends in the media, the dominance of biomedical views in the health care system, an active worksite health promotion program, as well as a common work culture, no uniformity was evident in conceptions of health. The workers appear to incorporate concepts from these many exogenous sources in varying degrees, constructing their own ***personal*** philosophies. These lay conceptions or philosophies of health may encompass all the elements about which professionals painstakingly theorize.

None of the subjects were at a loss to define health, though some tried to clarify what the ***interviewer*** meant by health. However, none indicated that defining health and describing its determinants was out of their domain of expertise. The 'lived experience' (Schutz and Luckmann, 1973) of health seems to provide its own expertise. (Note: The term 'lived experience is applied from Schutz' elaboration of the subjective experience of "the temporal, spatial and social stratifications of the life-world" [Schutz and Luckmann, 1973, p. 99]. Individual experiences are bound to situations and incorporated into an ongoing biography, based on an individual's 'stock of knowledge.' The flow of experience in turn, is incorporated into the stock of knowledge, contributing to further construction of the stock of knowledge. Experience and knowledge are reciprocally interactive).

It is possible that workers who have been active in the health promotion program would incorporate some of the health promotion staff's terminology or broad conceptions regarding health. Purposive sampling was used to obtain responses of workers with no contact with health promotion activities, who had

little awareness of the program or its philosophy, as well as workers who had participated actively. Active participants would likely have been exposed to general holistic health definitions by health promotion staff, or through classes and health bulletins. However, there seem to be no differences between the definitions of those who have participated in the health promotion program, and those who have not. Because there are no differences based on health promotion participation, and because the descriptions of each individual were rather unique, it appears that concepts of health are internalized, lived experiences. To the extent that health concepts derive from a ***common*** stock of knowledge, individuals assimilate that knowledge by a process of ***selective*** integration. Individualized notions of health become personalized and developed beyond a common stock of knowledge, although they may incorporate common information.

ACCOUNTS OF 'GOOD' HEALTH

The questions——"Have you been more healthy than you are now? How did that feel?"——elicited distinct accounts of health which had great relevance for a few individuals. The descriptions flow with the positive descriptors of the ***experience*** of health. For example,

> ...at one point, I was running almost 6 miles a day... and I could run 6 miles in almost 35 minutes. That's not too shabby for someone who's really not trying to, uh, to set world records, and I felt great! ...I was very lean and fit. I was very low stress....

And:

> Ten years ago, I weighed 185, 190, had no back problems, no knee problems. Had no problems with my health. Of course, I was single.... It tends to make a difference in your eating habits.... Oh, that felt great compared to the way I feel now. [Interviewer: Like in terms of...what differences are there between that state of health and this state of health?] Confidence. OK. When you feel good and you look good, you tend to have more confidence in yourself. And I've lost some of that. I doubt myself more now than I used to.

In these examples, accounts of 'good' health were readily recalled as part of a 'lived experience,' of health. Experience of 'good' health reflects the individual's actual performance, subjective feelings, and objective conditions of the body, such as weight, and absence of signs or symptoms. The presence of such accounts appears in striking contrast with the responses in Cornwell's (1984) sample, in which she found no such accounts of 'health,' only of illness. She suggested that perhaps the concept of 'health' was not clearly elaborated by the medical domain, consequently lacking relevance in the personal lives of her subjects. Clearly that conclusion cannot be applied in this sample. Health was a concept with a distinct meaning, not necessarily linked with illness. However, there was no indication that the respondents in this study had any clearer guidelines from the medical community regarding broader delineations of health, nor were their conceptions necessarily reflective of the health promotion staff's. Descriptors were indicative of ***personal*** experiences, as perceived by the individual. The difference in findings between this study and Cornwell's (1984) may reflect cultural differences (British versus American), rapidly changing trends in the relevance and language of 'health', or other variables not yet identified.

THE LANGUAGE OF GOOD HEALTH

The language used to define good health incorporates many variables which are dimensions of health. Health language includes descriptors which variously imply that good health is a ***state of being*** or a ***set of processes*** (i.e. health-related behaviors) leading to or causing good health. In addition, the language of health addresses ***consequences*** of good health, as well as ***potentials*** inherent in good health.

Good Health as a State of Being

Good health is often characterized by subjective descriptors based in the individual's experience. Terms such as 'feeling healthy,' or 'having a good feel in your body' are reflective of these highly subjective terms. Having a good attitude, a good outlook, being happy, being confident, and having no pain or medical problems also reflect individual states of being associated with health. A few mentioned a healthy appearance and 'not being fat' as attributes of good health, also reflective of states of being. (An interesting gender-linked difference was evident, with women more often concerned with 'being fat' as related to health; for men, good health was more often equated with muscle strength and less with body fat).

Processes for Achieving Good Health

More than describing a static state of being, the language of good health also includes those things a person does to ***achieve*** good health. For several, part of the definition of good health included descriptors of behavioral attributes seen as contributing to good health. Thus, eating a good diet, lowering stress, not smoking, not drinking, and getting enough exercise were included in definitions of good health. A person who engaged in those behaviors would be considered 'healthy' by the definition of several of the workers.

Consequences of Good Health

In addition to health as a state of being and as an active process of things one does, the language of health includes ***consequences*** of having good health. Such consequences of health included 'not getting sick,' 'not missing work,' and being 'able to do what you want.' This domain of language incorporates the concepts of absence of disease and pain as well as the idea of being able to function in daily life. Functionality implies being fit for role performance, such as not missing work

or meeting family responsibilities. However, functionality additionally is seen by this sample as providing freedom of choice. For example, a middle-aged worker speaks of his health in terms of what it permits him to do: "I think my health is good. I can do what I want to do, I guess." Several workers speak of health in terms of being able to do what they want in leisure time, such as participating in their sports or hobbies without suffering from muscle pain or endurance problems.

Functionality in this sample has a much broader interpretation than in prior studies in which functional health has emerged as a category, but was applied specifically to role functions. For example, Blaxter and Paterson (1982) noted the dominance of functional descriptions of health in their sample of Scottish working class women, where "to be healthy is to be able to carry out one's normal roles" (p. 27). Similarly, Baumann's (1961) sample ascribed a performance orientation to health which mainly alluded to the ability to fulfill usual role obligations. 'Functional fitness' in Williams' (1983) Scottish sample referred to the ability to perform 'work'——paid work, or work in home or garden.

The findings in this sample are reminiscent of the findings of Herzlich (1973), in which one dimension of health was described as "equilibrium," comprising several themes, one of which was "freedom of movement and effectiveness in action" (p. 60). A respondent in that study gave a response very similar to several in this sample: "I'm in good health when I am in equilibrium, when I feel myself capable of doing what I want." (Herzlich, 1973, p. 61). Her sample was comprised of professional and middle class French respondents, in contrast to the blue collar status of this sample; it is noteworthy that more similarities in the functional description of health exist between this sample and Herzlich's (1973) middle class French respondents than between this sample and working class respondents in other studies (Cornwell, 1984; Blaxter and Paterson, 1982). Thus, the differences in health conceptions between this sample and others do not appear

to be related to social status, but may be influenced by culture or other factors.

Crawford's (1984) American sample of professional and blue collar workers gave responses regarding health similar to this blue collar sample, which Crawford summarized:

> [Health is]...pursuing a free 'lifestyle,' individually chosen and externally obstructed by no one: "Ideal health is being able to do my own thing." Or again, "Health is being able to do what you want to do when you want to do it." (Crawford, 1984, p. 84).

Such examples of highly expansive consequences of the functionality provided by health, going well beyond typical role functions elaborated in other samples, may reflect particularly democratic ideals of freedom of function emphasized within certain political and social environments. Therefore, the broader social context can be seen as interactive with health concepts.

POTENTIALS INHERENT IN GOOD HEALTH

Having good health also is associated with a reserve, or health potential, which implies the ability to maintain a healthy state despite exposure to disease and stress. (This concept is similar to that elaborated by Herzlich, 1973). The language of 'resistance' to illness or to stress is incorporated as an attribute of health. For example, being healthy was seen as 'not catching everything that's going around,' or not getting sick very often. One's reserve can be actively constructed or augmented, especially for dealing with common life stresses. For example, a female worker described the process of building up her resistance by developing stronger coping abilities for dealing with stress, as a way of improving her health. An older worker implied a reserve of health when speaking of the improved immunity he had acquired through his life experiences, enhancing his resistance to disease and health problems.

Another important potential inherent in good health was the expectation of, or hope for longevity. One worker relied on this factor to the extent that she felt one couldn't really judge good health until the end of life, when one's longevity could be assessed. (It is interesting that this worker gives anecdotes of experiences in her own life of three close friends or relatives dying prematurely of cancer or accidents). She attributes one's longevity to inborn characteristics, or predetermined factors (such as fate or God's will), leaving little room for individual influences on health. Her own criteria for the best possible health emphasized longevity: "...just that I live a long life. Don't die before I miss out on everything (sic)."

Another worker also equates longevity as a potential consequence of good health:

> I mean, everybody has to look at themselves as "I'm here, I'm alive, and I want to be healthy and live a long time...."

All of the responses for defining good health could be subsumed under these four dimensions of health (state of being, processes, consequences and functionality). All of the workers viewed health as composed of more than one of these dimensions.

COMPARISONS OF CHANGING CONTEXTS OF HEALTH: ABSTRACT, PERSONAL, AND IDEAL DOMAINS

In the interviews, responses were elicited regarding definitions of health in general (abstract), descriptions and discussions of one's ***own*** health (personal), and descriptions of what the individual perceived as the best possible personal health (ideal) (See Appendix B). These questions shifted the context of health slightly, with notable differences in the terms the workers used to describe these various domains of health. The descriptors of health as states of being, processes, conse-

quences and potential (described above) were utilized by the workers in each of the three domains of health, but the emphasis and the language changed, depending on the domain of health being examined. The same variables appeared in a listing of terms used in all three domains, but the descriptive terms did not appear with equal frequency or with the same emphasis across the domains (Table 4).

The language of ***abstract health*** revealed respondents' attempts to categorize (subdimensionalize) health, or attempts to elaborate a global, overriding descriptor of health. Discussions of ***personal health*** employed highly specific descriptors of states of being and of functionality, placing much less emphasis on processes associated with health. The language of ***ideal health*** invoked much more 'process' terminology, with an emphasis on behaviors which an individual 'could' or 'should' incorporate into their lifestyle. Terminology associated with a 'moral' imperative for health (e.g., norms for what society expects the individual to be held accountable for regarding health) becomes most evident in this domain.

The variations in dimensions of health across the three contexts was strikingly obvious when tracking the dimensions discussed by a single individual (see Table 5). For example, one worker emphasized attitudinal and mental health attributes when discussing health in the abstract. His terminology in discussing health in general reflects awareness of and assimilation of a common stock of knowledge and an ideology of health emphasizing mind as well as body. When discussing his personal health, he mentioned the same attributes, but also introduced the notion of not being sick or absent from work. When the context shifted to his picture of the best possible health he could achieve, he introduced the notions of health-related-behaviors (the need to increase exercise), and desirable outcomes such as feeling less tired, and having increased vitality. Similar variations in health conceptualizations as the focus changed from abstract to personal to personal ideal health were noted in all the responses.

TABLE 4

DESCRIPTORS OF HEALTH DOMAINS

	NUMBER OF REFERENCES		
	Abstract	Personal	Ideal
STATE OF BEING	21	17	5
Mental attitude	8	2	5
Subjective feeling	5	2	3
Happiness	3	1	2
Weight	2	2	2
Stress	1	1	1
Physical condition	2	4	2
Age comparison		5	
PROCESSES	8	9	18
Eating right	3	3	2
Not smoking	1	2	2
Not drinking	1	1	1
Exercise	3	1	5
Social life	1	1	1
Active	1		
Sleep			1
Build muscle			2
Lose weight			3
CONSEQUENCES	6	11	7
Longevity	2	1	1
No medical problems	1	6	1
No aches/pains	1		
Freedom	2	2	
Endurance		2	1
Energy			4
FUNCTIONALITY			
Not sick	3	6	
Able to function	2	3	

TABLE 5

INDIVIDUAL DESCRIPTORS OF HEALTH ACROSS DOMAINS

	ABSTRACT	PERSONAL	IDEAL HEALTH
A Female in Mid-twenties	"...the first thing you think about is not being fat. ...not being stressed is really important. ...and eating right, because a lot of my problems was the foods I was eating and I was smoking and drinking alcohol."	" [Health is] probably fair. ...like if I was to have to walk up a couple of flights of stairs, I would never make it. You know, but then, as far as doing my job, the physical part of it, I'm ok, and my arms——I'm pretty strong in my arms and my back's in good condition. I have no back problems at all... Overall, I don't have a lot of pain like some of these people do. So, it's basically, my body's in good shape, musclewise, but I just don't have much breath when it comes to going up stairs or...having to hurry somewhere."	(Gives elaborate description of need to control weight and mental attitudes, to feel good about herself.)
A male in mid-fifties	(Gives an elaborate description about having a good outlook, joy in life, self-confidence, good values and a good mental attitude).	Identifies his own health with all above attributes, and describes himself as 'healthy,' including "I'm hardly ever sick. I never miss a day's work.... I don't care about a days' pay or using sick leave...but I just hardly ever get sick. I don't hardly ever have a headache or any of that kind of stuff.... I **feel** pretty healthy. I usually feel pretty good."	"Oh, I think I could be a little healthier. I know I don't exercise enough.... I would hope that it would maybe make me feel a little bit less tired at times...or maybe a little bit more vitality...I do get so tired sometimes."
A male in mid-thirties	{Int.: What determines whether a person is healthy?} "Whether he's happy. That would probably be the most important."	"I'm in good health, I'm not in excellent health, I'm in **good** health.... I have a herniated disc in my back. I've got a weak knee.... I'm overweight.... I do tend to drink too much."	"Ten years ago, I weighed 185, 190, had no back problems, no knee problems, had no problems with my health....uh, that felt great compared to the way I feel now. [Int.: In terms of ?] Confidence...when you feel good and look good, you tend to have more confidence in yourself."

In moving from abstract to personal health, general references to signs, symptoms, and medical problems became very specific. For example, respondents would invoke specific objective measures such as their own cholesterol or blood pressure readings to characterize personal health. 'Endurance' became a key factor in discussing ***personal*** health, but was not mentioned at all in reference to ***abstract health***. Most noteworthy was the emergence of age as a topic when discussing personal health; age was not mentioned at all in the abstract definitions of health. Seven of the twenty respondents discussed their personal health in terms of age, using age as an important norming criterion. (Further coding of age as a variable in personal health is elaborated later in this chapter). The occurrence of these discrepancies in terminology reflects the significance of the individual's ***experience*** in establishing what is truly relevant in the individual's personal health conceptions. Such experience becomes the basis for defining personal health, apart from the common stock of knowledge applied to more abstract conceptions of health. A difference is evident in how people ***think*** about health, versus how they actually ***experience*** it. Thus, these dimensions are not always congruent.

Considerations of ***ideal*** health shifted the dimensions of health to another level of abstraction——the personal domain of health, extrapolated to what the individual has constructed as an ideal self-image of health. As most of the respondents already considered themselves in good to excellent health, clearly the factors discussed under ***ideal*** health were not considered essential for the declaration of good personal health. This domain reflects the individual's attempt to relate social norms for good health to personal assessments of the person's actual expectations and capabilities.

When discussing ideal health, behavioral factors predominated, expressed in terms of what the individual ***should*** be doing. The language of 'should' and 'could' dominates this category ('I could lose about 30 pounds,' or 'I should exercise

more'). Although only one individual commented on fatigue when describing ***personal*** health, several noted that in their ***ideal*** state of health they would be less tired, or would have more vitality. Again, in this domain, one's ***thoughts*** on health, such as aspirations or dreams or conjectures about health, are contrasted with what one actually ***does*** or experiences in the here and now.

HEALTH IDENTITY

The striking inconsistency between descriptors used for health definitions in general (the abstract domain), and personal health became an intriguing point of departure for thematic analysis. Often, the abstract criteria used by the individual for ***defining*** health were totally or partially disregarded when the individual discussed his or her ***personal*** health. Despite the fact that most of the workers considered themselves in good to excellent health, their criteria for this assessment rarely matched up with the criteria they had already used in describing good health in general. Several workers overtly identified the inconsistency, volunteering they didn't do any of the things they regarded as definitive of good health, yet believed they were healthy. Such assessments of personal health were often based on more pragmatic criteria than those used to define health, including 'not being sick,' 'being able to do what one wants,' or 'feeling good.' The question arose as to why such an inconsistency was so prominent. If a worker considered that good health was a composite of certain criteria, why would these criteria be disregarded in whole or in part when discussing personal health? Cross-comparative analysis was applied to explore this phenomenon of inconsistent descriptors between abstract health definitions and personal health criteria. However one might see health in the ***abstract***, the pragmatic, lived experience of ***personal*** health was based on a more limited, perhaps more personally relevant set of criteria. These criteria seem to be individually constructed by the individual to validate his/her perception of personal

health status. A major theme emerged from this analysis, which was labeled 'health identity.'

Individual reference points for personal health are related to an implicit individual 'health identity' which is a core construct of the individual's self-appraisal of health. This appraisal incorporates awareness of the physical body as well as others' appraisals of the self. The resulting appraisal is totally unique to the individual. Even though the individual has a broad knowledge or awareness of health concepts or beliefs about what constitutes good health, these are often abstractions which may go beyond or be superimposed on the core health identity. That is, the knowledge of health in general, may not be incorporated into one's ***experience*** of health. Those elements which one selects from the total stock of knowledge and experiences as contemporally relevant to the self, comprise the health identity. The existence of an implicit, highly personalized health identity was apparent in every respondent. An exploration of general identity theory was undertaken, to facilitate the elaboration of this theme.

IDENTITY CONCEPTS

The term 'identity' emerged as a psychological and sociological concept in the 1940's, built on the concepts of 'ego identity' developed by Erik Erikson (Weigert, Teitge and Teitge, 1986). The concept quickly became a central concern to sociologists in the symbolic interactionist tradition. Identity theory is based on the premise that humans are socially defined, within the context of their place in time and culture, and by the extant meanings and symbols of that context. As the concept became further associated with the social construction of reality framework described by Berger and Luckmann (1967), identity was described as a socially constructed meaning, but with the unique quality of "being anchored in an individual's body" (Weigert, Teitge and Teitge, 1986, p. 17). The result is a

dialectical relationship between the individual's body and social meanings (Weigert, Teitge and Teitge, 1986, p. 17).

Identity is established through social relations which 'situate' the individual, designating the individual as a social object (Stone, 1981, p. 188). Identity also is constituted by self-appraisals, appraisals by others, and by experiences acquired over one's lifetime (Strauss, 1959). The 'self' is a sense of individuality developed by a self-aware being. Identity is a socially expressed dimension of the self, with multiple identities constituting the social self (Weigert, Teitge and Teitge, 1986). A temporal dimension is evident in identities, imposed in part, from the objective nature of socially defined stages in the life course (Strauss, 1962). Based on these premises, identity is defined as "a typified self at a stage in the life course situated in a context of organized social relationships." (Weigert, Teitge and Teitge, 1986, p. 53).

Types of identities explored in sociology are most commonly those associated with established roles, such as gender, family, religious, race and ethnic, occupational, etc. The specific term 'health identity' has not been widely elaborated, although it has surfaced in a few sources (Beraldo, 1985; Twaddle, 1979, p. 316). Other terms related to health identity have been described, such as a "health self" (Olesen, Schatzman, Droes, Hatton and Chico, 1990), and the "self-identity" as a " 'well person'" (Kotarba and Bentley, 1988, p. 552). Others refer to ***illness identities*** (Charmaz, 1990) and an "impaired-health identity," (Nuttbrock, 1986) which imply the pre-existence of some type of health identity, though this concept is not explicitly elaborated. Health identity is often implied as a residual category, e.g. that which existed ***before*** illness intervened. As an implied category, its dimensions have not been fully explored.

Twaddle (1979) described several factors influencing health identity, including norms based on age, sex, marital status, social stratifications, and organizational

context, describing the presence of illness or disease as leading to a redefinition of health identity. He also emphasized the need for analysis of health identity, apart from an examination of disease processes.

Beraldo (1985) described an overall quality of health perceived by a sample of healthy men (n=8), which she labeled 'health identity.' This identity was seen as a trait which was stable over time, and built from past experience and current feedback on health indicators. The process of "identifying with health" was seen as dependent on how one defined health which, in turn, determined the types of health indicators which would be relevant to the individual in perceiving his own health. Thus, one's health definition would set the parameters for health identity. Moreover, Beraldo postulated a reciprocal relationship, such that a change in health identity would also change one's health definition. (It is interesting that such reciprocity is not evident in the current data; individuals seem quite comfortable with lack of congruence between health identity and health definitions. They do not feel compelled to match themselves to their abstract conceptions of health or ideal health).

Olesen et al. (1990, p. 450) described a 'health self' as "a cognitive attribute of person which assesses contemporally the status of body as health 'condition'." Their analyses delved into the relationship of the mundane ailments of everyday life to the "evolving view of self." They elaborated on the concept of a "physical self" which was likened to other types of identity, but linked with the experience of the body. Their exploration of the physical self resulted in an important theme labeled "health biography", defined as a "conception of the body and its parts having a history of susceptibilities, potentialities and immunities or vulnerabilities to afflictions" (p. 451). The relationship of the individual with his or her body and ailments was seen as a significant element which shaped the self and its other

concurrent identities. Presumably, other aspects of health not related to illness would also contribute to one's health biography.

The contribution of such other aspects of health to health biography is supported by the empirical data of the current study, in which aspects of illness were secondary to other aspects of health. Data from the current study are presumably important to a broader delineation of 'health identity'.

Analysis revealed the construct of health identity centers around a core of self-defined, minimal essential criteria for health, which become the implicit reference points for rating one's own health, regardless of other dimensions of health which the individual may consider important for good health in general, or in abstract terms. The core dimension is usually described in terms of current ***state of being***, rather than in terms of ***processes*** leading to health. Even though certain health-related behaviors are often listed when ***defining*** good health or in conjecturing about ideal health, these typically are not referenced in evaluating one's ***personal*** health. In fact, subjects will often rate themselves in good health, while pointing out they don't do the things they think are determinants of good health. There is a quality of 'good enough' applied to this core health identity. Moreover, the 'experience' of feeling healthy is dominant over abstract beliefs about health, no matter how incongruent experience and beliefs may be. The health identity reflects one's actual 'lived experience,' what one actually feels and can do, in the here and now, rather than how one might conjecture or philosophize about health as an abstraction.

For example, a 28 year old male defined good health (abstract) in behavioral terms, emphasizing both mental and physical aspects:

> Basically it goes back to all the things that you guys [health promotion staff] talk about...it's good diet, trying to have some kind of regular exercise program. It doesn't have to be a rigorous one, but a regular one. And attitude is real important. In fact, I'd say of the three, that's probably the top.

However, when asked to describe his *own* health, the criteria used in his prior definition of good health do not enter into his self-rating. He noted that he does not adhere to his prior definition of healthy behaviors as much as he "could or should," but nonetheless he considered himself in good health: "I'm not sickly, or I don't get sick that easy, and all my body parts work fine." In contrast to his abstract criteria for good health which included lifestyle and attitude attributes, the qualities he invokes in describing his own health are absence of disease and a functional body——qualities derived from personal experience, in interaction with his body. That is, he has a health identity of being in 'good' health, but it does not necessarily derive from the fact that he eats a good diet, exercises, and has a good attitude. The 'nitty gritty' aspects of his self-defined health are how his body functions——he doesn't get sick, and his body parts work. What is relevant for him in the here and now, are those aspects of health, even though he is aware of other possible qualities which he may or may not possess at present.

Another worker's description of criteria for her personal health exemplifies the highly specific descriptors applied to the self, again reflecting experiential dimensions of health identity rather than abstractions:

> I'd say it's [health] pretty good for my age. I'm overweight, yes, but I understand that my cholesterol level is about 150, I understand that my heart rate and blood pressure is normal. Other than being overweight and I have some tissue damage, but that usually has to do with age and tendonitis, and the kind of work we do out here.

This description of her own health, in contrast to terms used in discussing health in the abstract, has a quality of a 'lived experience,' situated in the life cycle (age), interactive with the work setting, and reflective of objective biomedical measures which have been incorporated as personal indicators.

The individual discussions of health are highly personalized. The criteria for personal health are readily accessible and clear cut to the workers, and highly

pragmatic, presumably derived from the experience of that individual. The perception of being in good health is derived from something other than the 're-ceived' ideas or common knowledge of criteria perceived to be indicative of health, although this knowledge may inform the self-appraisal. One's experience in one's body becomes a key modulator of received health knowledge. Once formed, the individual health perceptions appear to be quite stable. Starting from the premise that a health identity does exist as an individual construction, dimensions of a 'health identity' were elaborated. (It should be reiterated that this construction is an 'implied' theme; no worker used the term 'health identity' in describing the self, but analysis of the way workers spoke of personal health seemed consistent with identity theory specifically applied to health perceptions).

DIMENSIONS OF HEALTH IDENTITY

The elements which were commonly used to describe personal health were elaborated into four key categories of health identity——biographical, phenomenological, objective and socially comparative. The biographical dimension of health identity is based on one's life history of health experiences and perceptions, which help to form a durable self-image of health status (such as 'I've always been healthy'). A subjective realm of health identity, labeled "phenomenological" encompasses the feelings associated with health ('I feel good;' 'I felt healthy'), or the personal experience of critical events or illness/injury and the meanings associated with those events. Objective data incorporated into health identity include observable measures or signs. Data such as biomedical criteria (blood pressure, cholesterol, signs and symptoms, results on screening tests) or observable visual cues (such as the presence of a 'spare tire') or signs of aging are examples. The last category is social comparisons——active comparison with peers, family, health promotion staff, etc. as normative standards for how one's health

could be. Such comparisons can lead to the formation of individual expectations or norms for one's own health.

These categories, derived empirically from the data, were later discovered to be quite similar to categories described by Fabrega (1974) in a model of ***illness*** behavior. He identified four interconnected systems through which individuals monitor illness data——the biological system (which involves the chemical and physiological processes of the body), the social system (including interactions with others), the phenomenological system (involving awareness and self-definition) and the memory system (the unique history of the person). (His term, 'phenomenological' was adopted as a label for the 'subjective' category of health identity).

Biographical Aspects of Health Identity

In many instances, identity evolves through one's life experiences related to health. For example, the ***biography*** of the individual is frequently accessed when talking about present health (see Olesen, et al., 1990). An individual's past history of health provides a significant component of health identity, either being incorporated fully into one's current health identity, or providing a background of contrast with one's current identity. Body constitution, or heredity factors are part of this aspect of health identity, along with patterns of resistance to illness ('I don't get sick'). The role of the family, as part of life experiences and in terms of hereditary characteristics is included as part of biography. Interaction with other identities of the self, such as parent, breadwinner, or worker, may alter or constrain the biographical health identity. In addition, an expected trajectory of health, based on stages in the life course, is part of the biographical dimension of health identity.

Several of the older workers in the sample draw on their life history freely when discussing their health, demonstrating a sense of an enduring health identity, firmly rooted in life's experiences. A 53 year old production worker who looks

much younger than his years, says of his own health——"I'm not in bad shape for my age," and in fact, sees himself in "better shape than most [people his own age] have ever been." He describes a long pattern of health:

> Fortunately I've been pretty healthy...to be unhealthy, I could not really relate to you how it would feel because I've been healthy most of my life, and I've never really had any major——nothing ever broken, my nose and stuff like that, like having a crippling disease, or something like an arthritic problem that would bother me.... I may be one of those people that are fortunate, that don't age, don't show their age...I don't know whether it's heritage or what. I think it's——some people are very unfortunate——I think it has to do a lot about what you've done with your life, what strenuous and stimulating things that you've had in your life, what stress and what depressions you've been through. I think it all is a factor in aging you or keeping you young. I think attitude. Basically, if you have a very poor attitude in life, you're usually not going to look too well. Or enjoy yourself or feel too well. I think without joy, without laughter, you go quick.... I'm as healthy now, as I was in the past.

He sums up the source of his own long-standing pattern of good health as "Good marriage, good sex, good laughter, good joy, and a lot of tears."

Another of the older workers has a similar biographical perspective on his health, emphasizing the centrality of his mental attitude, which has been built over a lifetime of experiences:

> Well, I think health——of course, you can have some little thing wrong with you, like a bad muscle, like I've got a bad finger right now, or something——but you can overcome those things. But I think a lot of it is kind of——you've just got to have a good outlook out here. Life is good. The joy of life is great, and I think it's helped my wife and I both to stay healthy. Because we are very healthy people, or appear to be, or always feel like it, you know. And a lot of that is because I think we put things in their proper place—— have a good set of values.... What certain things are important, and not getting stressful and worried about money or stuff that hasn't happened yet, or may not happen, and a lot of that is just——maybe over the years you build up a sort of...self-confidence. Yeah, we can do it. And self-confidence has helped us. I think a lot of it is mental. Good mental health.

He sums up his lifetime of health: "I was healthy then, I'm healthy now."

It is perhaps noteworthy that these elaborate biographical descriptions were elicited from older workers, who have a greater store of lifetime experiences from

which to gain a perspective on health and their own relation to it. The value of a good mental attitude, forged out of life experiences, is salient in both these biographical descriptions. Although not as elaborately descriptive, evidence of a long-standing biographical continuity in health identity is evident in younger workers as well. A worker in his thirties rated his health as:

> Good, good. With a few recently discovered considerations——that blood pressure——it's all right.... **I've been basically this way for several years, as far as I can remember....**(emphasis added).

For this worker, despite the fact that he smokes and would like to quit, has borderline high blood pressure and complains of chest pain which might be stress-related, he readily draws on his ***long-standing*** health identity when discussing his current health. Thus, problems which might be considered by health professionals to be health problems which could threaten a perception of being healthy, do not really affect this individual's current health identity. He acknowledges the medical problems, but does not incorporate them into his health identity. They are superimposed, or superficial to his core of health. These conditions may be seen as part of the 'self,' but not necessarily as that part of the self that is the result of assessment of health. Aspects of health which are kept on the periphery of health identity, rather than being incorporated into it, were apparent in several of the respondents. (Characteristics of a sphere of conditions which surround and potentially interact with the health identity are described in Ch. 7). The same worker goes on to describe a long-standing sense of biographical health which acquires the quality of a taken-for-granted condition. He sees himself as healthy because he has never had to focus on ***not*** being healthy. The signs and symptoms that he currently experiences have not yet led him to question his longstanding sense of being healthy:

> I didn't ever dwell on not being healthy. I didn't have to concentrate on it. I'm one of those fortunate persons that didn't have to think about it very much....

The aspect of good fortune, and not having to worry about health, recurs in those who have a long-standing healthy identity from childhood. If good health has resulted from no overt conscious choices in the person's biography, it is perceived as good fortune, or good genetics. The family history of health, such as having healthy parents or grandparents are invoked as well, as part of the genetic cards the individual has been dealt. These were elaborated as subcategories of the biographical dimension of health.

Another male worker in his mid-thirties rated his health as excellent, also building on a biographical theme:

> I could probably be in better physical shape...but healthwise...I'm not sick very much.... **I've been pretty healthy all my life** as far as not being sick and having a lot of things. I never missed a lot of school being sick. I never have missed work being sick. [emphasis added].

A major factor in his biography of health is resistance to illness. However, he does attribute a portion of his current health to lifestyle:

> ...how you take care of yourself. What you eat and the things you do, you know, like alcohol, tobacco, drugs.... I've always been busy. I'm not one to sit around.

A history of lifestyle practices which the individual associates with health and with a pattern of resistance to illness are often components in the biographical realm of health identity.

Aging and Biography

For some, maturity is a positive feature in the health biography. Workers talked about increased immunity and resistance to disease, and better coping skills which accrue through time and life experience. This was particularly true of the

older workers, who may even develop a more positive health identity as they age. For example, one of the older workers, in his fifties, considers himself healthier now than in the past,

> ...because I can get over things quicker because my immune system is built up a little stronger.... Also, when you're younger, things upset you more, and I think it can affect you on various things. Stomach problems, stuff like that, which I don't get upset that much anymore, and I don't let too many things get me upset.

(An interesting corollary to the conceptions of these older workers is the number of illness days of workers in this factory, broken down by age. Workers over the age of 40 experienced the least number of illness days, while those under the age of 30 experienced the most. The quantitative data tend to lend support to the qualitative responses. However, other factors such as commitment to work and family demands of younger workers may also play a part in the differences in utilization of illness days. Several responses of workers indicated that sick days are not used exclusively for illness, but often are used for other reasons. Conversely, some workers may continue to work when ill, so absence of sick days does not necessarily reflect absence of illness).

Biographical Continuity versus Discontinuity

Although the current descriptions of personal health frequently reflect a ***continuity*** with the past health biography, in some cases the biography provides a backdrop of contrast, against which current health is ***discontinuous***. A young production worker rated his health as fair, based partially on resistance to colds and flu. He feels he is at his healthiest point in his life now, contrasting it with his childhood. "I was real sick as a kid. Allergic to everything....nothing bothers me now." This level of health, a health identity seen in contrast to his former experiences of illness, persists in spite of his own perception of not living a

particularly healthy lifestyle: "I don't eat good, I don't exercise, I don't do nothing."

Whether a reflection of continuity or of discontinuity with the biography, the health data acquired through life experience with one's own body and mind, seem a key aspect of one's current health identity. The biography contributes a ***defined past*** and an ***expected trajectory***, marking posts against which to gauge current health.

PHENOMENOLOGICAL ASPECTS OF HEALTH IDENTITY

Subjective feelings play an important part in health identity. Feelings, though socially learned and expressed, become the possession of the individual. They may be expressed socially, but essentially, they are the individual's own, part of the 'lived experience' of health and are totally unique to that individual. These phenomena are powerful determinants of health identity. In some cases, the ***feeling*** of being healthy seems sufficient to define oneself as healthy, regardless of any other evidence to the contrary.

A young male production worker describes his best state of health:

> Well, when I was 18 I went in the service, and basic training put me in better health than anything (laugh). I hated it, but as far as all the exercise and stuff we had to do, it helped me a lot. I **felt good**....

One of the older workers in production also relies heavily on his feeling state:

> I **feel** pretty healthy. I usually feel pretty good. I do get tired easier now. (He discusses the effects of the 12-hour shift). I'm trying to figure if it's just age...but I find a lot of these young people that act like they're more tired than I am.

Although his feeling state predominates in his categorization of his current health identity, the linkage of subjective feeling with social comparisons is also evident.

He compares his feelings of fatigue with the younger workers, to validate its normality and to reassure himself of the stability of his identity, despite the onset of fatigue.

A young warehouse worker attempts to define good health by contrasting it with his health identity ('not healthy'), which he describes in terms of how he ***feels now.***

> Oh, myself, I don't really **feel** healthy right now, so I would think it's [health] just an everyday feeling of being comfortable physically, and it has to do with mind too...you could be down in the mind and that can affect the way you feel everyday. But I think as long as everyday you **just felt good all the time**.... When you go out and do something physical, the next day you go, "Oh I feel so sore." You might only been doing it for 15 minutes. Those people are not healthy, and I'm one of those....

This worker expressed a strong biographical contribution to his health identity, which incorporated 'being healthy' for most of his life. However, his current ***feelings*** now provide enough of a contrast to his health biography that he no longer identifies himself as in good health. Thus, the phenomenologic realm provides a powerful determinant of current identity, despite a long biography of 'good' health.

The trajectory of aging, discussed as part of the biographical dimension, affects the phenomenological dimension as well. Health becomes more salient with age, based on the ***feelings*** associated with aging, which may modify the health identity:

> Our age...you do get to feel some stuff...you don't have the stamina, or if you sit wrong for a long time, your legs do this, and you find you can't do some of the things you used to do, and that's to be expected....

The expected trajectory of age prevails over the phenomenological realm, establishing expectations for how the body ***should*** feel. Even though the decline with age could negatively influence health identity, it seems not to, since such decline is in line with expectations. Even though health may decline, the health identity may remain fairly stable, to the extent that biographical expectations of

aging are incorporated. As Strauss (1962, p. 82) noted in discussing transformations of identity, a "prefigured life cycle...not only actually minimizes crises but obscures those changes that occur and aids in explaining them away." This attribute of identity theory is quite congruent with the empirical data on health identity from this sample.

OBJECTIVE ASPECTS OF HEALTH IDENTITY

Objective indicators figure prominently in health identity. Such indicators may be data from medical testing, from interaction with medical or health promotion staff, or from one's own observations. Objective indicators share the attribute of commonality——they can be seen or measured and validated by others. Many of the workers have participated in health risk appraisal screening and have received extensive feedback on objective medical indicators such as blood pressure, laboratory tests, pulmonary function tests, etc. These data may well become part of their health identity. For example, a worker who is quite content with his current level of health, applied terms related to health behaviors (processes) to describe how he sees health in the abstract, but finds it not relevant to his identity as a healthy person. Instead, the terms of ***medical discourse*** emerge to dominate his health identity:

> To me health is mainly mental. If you want to be healthy, you eat the right foods, you exercise right, you get enough sleep, you do what you feel all is necessary to maintain your health standards. **Myself**, as long as I come in here once a year, and take that physical, and they tell me, "There's nothing on your chest, your hearing's ok, your lung capacity's fine," you know, I'll keep doing whatever I'm doing..... When I come in here and blow on that pipe every year [refers to pulmonary function test], and they say I'm doing just as good if not better than the year before... Now if they start telling me, "Hey, you're fifty percent lower than you were," then I would start thinking about correcting that aspect of my lifestyles. You know what I mean? Quit the damn cigarettes and my lungs would get better. But as long as they keep telling me, "Hey, for as old as you are, and what you do to yourself, you're in good shape," I just let it ride. You know, I don't want to be any healthier.

He uses the biomedical physical standards as his key index for a minimal essential standard for his *own* health, even though he lists other criteria for health in the abstract. With this reliance on the power of biomedical indicators to gauge the state of his health he is able to relegate much of his awareness of health to a 'taken-for-granted' realm, which does not require much conscious effort. As long as health remains non-problematic, he does not have to make any adjustments in order to maintain his health identity. Even though the medical criteria are not all-encompassing of optimal health, they indicate a state which is 'good enough' for him to claim good health. For this worker, the objective medical criteria seem to play a powerful role in defining his level of health. However, the medical criteria are not an ***exclusive*** determinant of his identity. In addition to medical indicators, this worker mentions the ***temporal*** aspect of health identity, i.e. that it is age-dependent. He also alludes to the socially comparative nature of health identity, incorporating assessments by his peers that he is 'in good shape.'

The adoption of medical discourse and medical markers to define one's own health is reminiscent of Cornwell's (1984) findings related to 'commonsense knowledge' about health. Health conceptions of her lay sample were informed by, but not necessarily dominated by medical conceptions. Evidence of medicalization can be seen in the terminology of these factory workers, and in some cases, become strong components of health identity. However, as in Cornwell's findings, many other sources of knowledge are incorporated. Aside from medical measures, objective data in this sample included observations that an individual could make for him or herself, such as the appearance of a 'spare tire,' changes in one's weight on the bathroom scales, or how far one could walk or run.

In some cases, the medical measures of health are acknowledged by the workers, but are interpreted as irrelevant to health identity. For example, the conclusions of the company doctor were frequently questioned and disregarded by

workers when his conclusions conflicted with their personal interpretations of the significance or meanings of physical complaints. High cholesterol readings could be discounted by emphasizing a history of parents or grandparents who ate bacon and eggs every day, yet lived to ripe old ages.

The process of discounting is exemplified by a female worker with an extensive family history of health disease, high cholesterol, a history of smoking, and current circulation problems requiring surgery. She felt her health was quite good for her age. She was able to discount the medical indicators, as well as much of the family patterns, by noting how different she was from her siblings——she could still work, and was not incapacitated like they were. Thus, objective measures can be interpreted in a context for comparison which makes them less relevant for the individual's perceptions of health.

The fact that objective measures such as blood pressure and cholesterol varied from one reading to the next was interpreted by some workers as evidence of unreliability, and as reason to avoid reliance on objective medical data. Although not every worker relied on objective indicators such as medical data, when these measures were incorporated into health identity, they often had a powerful effect.

SOCIAL COMPARISONS

Many individuals explain their self-ratings of current health in terms of external social criteria, typically, comparison with their peers, people their own age, or family. Health identity follows an expected trajectory that takes into account the effects of age, work environment, and family characteristics, which cannot be gauged without recourse to the experiences of others. In the process of making social comparisons, the individual applies qualifications to his/her health identity, which situate health in the social context and in expected trajectories. Such qualifications include terms like 'I'm in good health for my age', or 'for the kind

of work I do.' These types of comparisons demonstrate the socially interactive nature of health identity, forged from active exchange of symbols with others in the social environment.

The work context is the dominant aspect of the social comparisons made in this sample. There is much comparison of one's own aches and pains with co-workers; a consequence of these comparisons is that typical workers' complaints become a normalized aspect of the health identity, rather than a threat to one's perceptions of good health. For example, in another context, the sore backs or complaints of tendonitis might be seen as highly problematic and of enough concern to call one's health into question. However, in this social context, they become taken for granted; even though they are acknowledged as part of the physical self, they are 'normalized' and have little consequence for altering health identity.

The identity of being a worker interacts with health identity——establishing baseline expectations for functional health, such as not missing work because of illness, and of being able to perform the heavy physical tasks associated with the job. For a few, attendance history at work, especially perfect attendance, was proudly alluded to as evidence of their good health. Ability to lift heavy bags of the product, particularly for females, also is included as a dimension of current health. A young female worker explicitly incorporated the work aspects into her description of her current health:

> ...as far as doing my job, the physical part of it, I'm ok, and my arms——I'm pretty strong in my arms. And my back's in good condition.... Overall, I don't have a lot of pain like some of these people do. So, it's basically——my body's in good shape musclewise.

The worker identity is highly dependent on day-to-day social comparisons, which can occur continuously in this highly social work setting, with its active communication systems, and the open work areas in which the functional abilities of many co-workers can be observed. The work identity also presents expected

limitations for health, such as 'I'm as healthy as you could expect, working with all these chemicals.'

COMPARISONS WITH PREVIOUS STUDIES

The discrepancies between descriptions of health in general and personal health in this sample are reminiscent of Cornwell's (1984) findings. Her respondents described health as 'good,' despite much physical evidence to the contrary. However, Cornwell's conclusions about the discrepancy do not fit the data in these interviews. She labeled her subjects' different versions of health and illness as 'public accounts' versus 'private accounts' (See Chapter 3). Public accounts reflected the dominant biomedical/professional views; private accounts reflected the pragmatic, actual experience. She attributed the discrepancy to the phenomena of image management. She concluded that her subjects would not present private accounts until they got to know the interviewer better and felt comfortable with revealing their true thoughts, or would reveal them unwittingly through telling anecdotes. This might be the case in interviews conducted over time where increased trust and comfort may develop between the interviewer and the subject. However, that explanation does not fit with the one-time interviews conducted in this study. Many of the subjects had an established rapport with the interviewer, and a context was established for a trusting relationship. However, some of the subjects had no prior close contact with the interviewer, so no prior trust was established, except perhaps by reputation of the health promotion staff. The presence of an established relationship with some workers and not others seemed to make no difference in the interview process. That is, all the workers interviewed, regardless of their familiarity or lack of familiarity with the interviewer, seemed to relax in the process, and appeared quite candid. The interviewees readily mentioned many aspects of their health behavior or work behavior which would not

be mentioned if they were actively trying to present the 'correct' attitude to a stranger or to someone from a perceived position of authority or 'higher' class. Workers volunteered information regarding illicit drug use, smoking on plant premises (which could be grounds for termination), negative opinions about plant management and policies, and information about personal health behaviors commonly assumed to be high risk, such as heavy drinking, smoking and lack of exercise. Cornwell's interpretation of public accounts versus private accounts thus did not seem congruent with the context of this work place. The discrepancy between health in the abstract and personal health seemed much more explicable by applying concepts relevant to identity formation and maintenance. Thus, it is concluded that the current sample truly assess their health as 'good' despite perceived health problems, because such problems did not necessarily alter current health identity.

Findings from this sample differ in several ways from the examples given by Conrad (1988b) from his study of 35 participants in a corporate health and fitness program. Conrad's sample consisted of men and women, median age 36.5, predominantly college educated, who enrolled and participated in a New England corporate wellness program with an onsite fitness facility. His interviews dealt with reasons for joining the wellness program, not with definitions of health per se. However, he discussed findings on definitions of health. He concluded from his analysis of health definitions that most of the participants held more of a 'fitness' orientation than a 'health' orientation, and that some described health precisely in fitness terms, for example: "I think health is just being in the best shape you can. That is, low fat on your body and breathing, aerobic type, for your age." (Conrad, 1988b, p. 547). Conrad speculated that the strong fitness orientation of his respondents reflected the physical fitness boom of the 1970's, and its adoption by middle-class professionals. He also found an obsession with losing weight and

staying young and attractive. He classified his sample's health goals as limited——"trying to stay in shape and get more out of life with fewer calories" (Conrad, 1988b, p. 549).

In contrast, the present sample of blue collar workers, in roughly the same age range, seems to have a broader conception of health than Conrad's respondents. Topics of weight loss, staying in shape, and staying young occur in my sample, as in Conrad's, but these topics do not dominate their discussions of health. Such topics appear primarily as subdimensions when participants discuss their ideal or optimal health. The importance of 'mental attitudes' as a health attribute seems as prominent in this sample as the 'fitness' orientation emphasized by Conrad.

Conrad attributed the fitness focus of his sample to a 'middle-class orientation,' which may differentiate his sample from this working class population. Another difference may be the lack of an onsite fitness facility in this plant. It may be that the physical presence of an entire facility for fitness and a full-time fitness director on the premises (as in Conrad's population), may encourage an exaggerated focus on fitness, to the exclusion of other dimensions of health.

In another sample of Americans, Crawford (1984) noted differences in the ways blue collar workers and white collar workers discussed health. Crawford described a moral mandate for health which involves an element of 'control.' In his discussions with white collar workers, this dimension was often manifest in terms of the compulsion to exercise as a form of discipline and control over the body. He postulated that workers whose jobs make physical demands on their bodies do not share this manifestation of control; as their work exacts other manifestations of bodily discipline and control, the blue collar worker may be less likely to pursue physical fitness activities outside of work. His findings seem valid for the current sample of blue collar workers, who do not emphasize the role of exercise in maintaining their personal health. Some workers justified their lack of leisure time

exercise by noting the heavy physical toll of work on their bodies. Exertion at work was either considered exercise enough, or at least was the cause of fatigue which mitigated against further exercise. As one worker noted, "I figure throwing wrenches around all day is enough exercise for me." The quantitative data provided confirmation that the workers do not get the minimal exercise recommended for health maintenance (twenty minutes, at least three times per week). Sixty-nine percent of the sample who participated in the Health Risk Appraisal, reported they did not exercise regularly, three times a week.

SUMMARY

The blue collar workers in this sample were at no loss to describe health and its components. They offered descriptions in abstract terms, as well as descriptors of their own personal experience of health. In all cases, health descriptors were multi-dimensional, incorporating many components of health, but also expressing holistic terms which tied many subdimensions together. Descriptors applied to health varied, depending on whether discussions were on health in the ***abstract***, ***personal*** health, or ***ideal*** individual health. From these discrepancies, it appears that the lived experience of health contributes to the ways individuals perceive and evaluate their current personal health, constructing an implicit health identity. Differences were found between conceptions of health in this study compared with others. It is not clear to what extent these differences are cultural or based on different social status.

In the face of multiple definitions of health and multiple factors impinging on health, the individual makes his/her own sense out of the morass of health factors by the lived experience relating to health. Health has an inherent subjective quality which is accessed in forming the health identity. The workers who responded to the question "How do you rate your health?" experienced no hesitation or difficulty in

putting a label on it, and elaborating their criteria for the label. The identity, unlike definitions of health and optimal health, is a lived, known quantity. It is an individual construction for each person, whether or not it fits with the professional or popular definitions of health. Few of the workers noted, and none apologized for apparent inconsistencies between their abstract notions of good health and their own ratings of good health.

Most of the workers rated their health as good, despite a large list of minor or major physical complaints or insults to the body. Several considered their health to be excellent. Even acute problems which cause pain and disability were not likely to alter an individual's health rating. It appears that health identity in the working adult is rather resistant to alteration from acute insults. Likewise, repeated insults or chronic problems may be ***incorporated*** into the health identity, or simply accommodated, without necessarily ***altering*** the overall identity. For example, the changes which occur with aging are noticed, and become a part of the identity, but they are often expected and accepted as normal, and not a consideration in changing a 'good' health identity to 'fair.' In the face of relatively stable, 'good' health identities in this work setting, the question arises as to what factors might influence perceptions of health and health identity. Such factors and cases of alterations in health identity are discussed in the following chapter.

Chapter 7
STABILITY AND CHANGE IN HEALTH IDENTITY: PERCEIVED INFLUENCES ON HEALTH

Analysis in this chapter focuses on workers' discussions related to the research question:

> *What do workers perceive as predominant determinants of, or influences on health?*

In Chapter 6, discussion centered on workers' broad conceptions of health in the abstract as well as personal health conceptions. Personal health, construed in terms of a 'health identity,' generally focused on more pragmatic, individually relevant dimensions, generated from one's experiences in health, rather than from abstract conceptions. However, although the health identity narrowed the dimensions of health to those that are highly relevant to the individual, it is clear that the individuals remain aware of many aspects of health outside of their central health identities. This is evident from their discussions of general health definitions, and their reflections on qualities of ideal health. They hold a large stockpile of information about health, with which they don't yet necessarily 'identify.'

In this chapter, a tendency toward stable health identity is described, as well as the workers' perceptions of influences on health. Conditions under which these influences become part of, or remain outside of the health identity are explored. Strategies to maintain, to strengthen, or to reconstruct health identity, are outlined. Given the prominence of the work setting in the sphere of health of these workers, a more focused analysis of the interaction of the work setting with health is discussed in the following chapter. Thus, work influences on health will only be briefly alluded to here.

STABILITY OF HEALTH IDENTITY

Despite the presence of muscle and back injuries, ulcers, high blood pressure, high cholesterol, use of tobacco, lack of exercise, and being overweight, health identities tend to remain stable, at fairly 'good' levels in this sample. Such stability might relate partially to the very common nature of these conditions in this plant culture, so these are not perceived as highly abnormal, but rather part of the course of being a worker. In fact, the incidence of these problems is typical of the American population at large (validated by the quantitative data), providing another source of social comparison for these workers to establish 'normality,' and thus to claim good health. Twaddle (1979, p. 317) noted:

> ...perfect health is something that people are oriented toward but do not achieve. Further, since not everyone is thought to be sick, most people must be in a state of less than perfect health defined as normal.

In addition, health problems which can be adapted to may actually be assimilated into the health identity without altering it, if activity (ability to function) is not markedly disrupted. For example, chronic back pain resulting from the heavy overhead lifting in the warehouse is not seen as a health problem, and doesn't alter a worker's perceptions of good health, because "I can get around it. It's not like a pain that's going to kill me." Many such problems were acknowledged by the workers, as incorporated into identity, without altering their overall health perception, because they 'could live with it', could 'cover it up,' or 'get around it'.

Identity theorists note the importance of maintaining continuity of personal identity across time and across situations. Given the transient nature of the modern social world, stability of identity becomes even more crucial, yet harder to maintain. How an individual is able to maintain a sense of a continuous self is not easily explained. Weigert, Teitge and Teitge (1986, p. 60) noted that "organic continuity and a continuous memory are required." A sense of organic continuity

must be inherent in health identity, with its crucial linkages between the body, the self and society. Thus, a strong feature in continuity of ***personal*** identity may, in fact, be based on a continuous ***health*** identity. A disruption in health identity may have profound consequences for other realms of personal identity.

Strauss (1962) noted that changes which occur through life must be perceived to be important and relevant, to be taken into account as features of identity. The interpretations of the individual become key features of determining whether identity remains continuous or becomes discontinuous. Strauss noted:

> The subjective feeling of continuity turns not merely upon the number or degree of behavioral changes, but upon the framework of terms within which otherwise discordant events can be reconciled and related. (Strauss, 1962, p. 84).

Consequently, multiple changes may occur in one's life, but may be interpreted in such a way by the individual that identity is not altered. In fact, changes which might cause alteration in identity may be disregarded, or kept from the realm of awareness. If such changes were to be recognized, a great sense of uneasiness, disappointment, or frustration could result (Weigert, Teitge and Teitge, 1986, p. 61). These identity concepts help to explain the persistence of stable health identities, even in the face of deterioration in some aspects of health.

PERCEIVED HEALTH IDENTITY AND CONDITIONS OF HEALTH

Construction and maintenance of a stable health identity, based on an individual's ***selective perceptions*** imply that an individual's self-rating of health, based on a long-standing health identity, may not be reflective of an actual health reality. However, other empirical findings belie this premise. Goldstein, Siegel and Boyer (1984) reported findings from many studies indicating that perceived health status, aside from sex and age, was the strongest predictor of mortality even

when measures of objective health status, life satisfaction and income variables were taken into account. These researchers investigated factors which led to a change in self-ratings of health, over the course of a year (n=903). One third of the sample reported changes in health over a year. However, ***acute*** health problems were not associated with a change in ***perceived*** health status, even if professional assistance and activity restrictions ensued. The researchers concluded that perceived health status may reflect an individual's sense of ***chronic***, rather than ***acute*** conditions. These findings may be interpreted in terms of identity theory. Chronic conditions are likely to become incorporated into identity, entailing some sort of reassessment of the self, but acute conditions which might cause sudden, threatening alterations in health identity may not be incorporated as part of the self.

Williams (1983) discussed findings from his Scottish sample which have similar relevance to the present discussion of health events in the broader sphere surrounding one's health identity. In his sample, if chronic conditions were present, the respondents were 'cautious' in using terms like 'excellent' to describe health, but most perceived 'good' health. The number of chronic conditions and the associated prognosis and threat were important considerations. If an individual had a single chronic condition, or conditions which were not expected to get worse, perceived health was not affected.

Williams found that ***disability*** was powerfully associated with self-ratings of health. In addition, ***pain***, even if it was not disabling, was associated with a poorer perceived health status. In contrast, in the current study, the aches and pains associated with ***work*** did not seem to become part of one's health identity; rather they were factors found in the broader sphere of health for most of the workers. However, pain which was ***not*** work-related, and which was ***disabling*** and highly distressing led one worker to describe his health as poor; this worker's identity seemed integrally related to his chronic pain condition. The difference in these two

types of pain is possibly the characteristic of pain as a normal, expected consequence of the work setting as opposed to an unexplained individual affliction. In the former case, health identity is not reconfigured by pain; in the latter case, lacking a normalizing social comparison, health identity is altered by the pain.

If acute conditions occur, they become part of the biographical experience, and are incorporated into the sphere of health surrounding the health identity, but not necessarily incorporated into the core identity. They don't necessarily become part of the individual's self. However, the stable health identity remains grounded in the relationship with the body, and even though acute conditions may be disregarded, the long-standing health identity is highly reflective of the individual's objective health status.

Health identity may be stable for most, but stability is not an invariable feature. In a few workers, evidence can be found that identity can become problematic, if current perceptions differ markedly from some ideal or from individual expectations. Health identity may be a 'conflicted' identity; in some cases, it may even become 'reconstructed.' Conditions under which health identity may ***not*** be stable and continuous are developed below.

THE PERIPHERY OF HEALTH IDENTITY

Beyond the central health identity are factors which are supplemental to good health, but not essential to an identity of good health. These factors form a 'sphere of health', a context which includes those dimensions interactive with, or supplemental to one's core health identity. This sphere of health surrounding health identity links personal health to ideal health, incorporating one's total stock of knowledge of health. Health identity can be influenced positively or negatively by the attributes in the sphere which include behavior, environmental risks, or the acquisition of knowledge about health. The sphere of health surrounding the health

identity includes acquired conditions which occur through the process of living and working, such as wear and tear on the body, injuries, stress. A person can have such wear and tear, or even specific injuries which temporarily affect functioning, and yet which don't alter the central construct of that individual's health identity.

Many workers describe the typical problems which they accommodate and accept as part of the normal wear and tear of life and work as nuisances, rather than health problems, and as things they 'can live with' which do not seem to alter health identity. For example, a worker in his late thirties had been bothered by a recurrent back problem, which at the time of the interview was causing a moderate amount of pain, and resulted in time spent in the plant nurse's office receiving heat treatments. He nevertheless considered himself in good health:

> My back——that's not health. That's more of an injury. ...it's just a momentary thing. Like I say, after 3 or 4 days, I'll be able to handle it again, and I'll just go on like nothing ever happened, until the next morning when I reach for my shoes in a funny way, and it goes out. [A health problem for him would be] something that I figure I won't be able to work with, or live with. But this, I know I can live with it.

His back problem is one which is peripheral to his health, something to be considered and attended to from time to time, as an accepted part of his life. However, because he can ***work*** with it and ***live*** with it, it does not disrupt his health identity——he sees himself as a healthy person. He has a condition which can be accommodated.

A SPHERE OF HEALTH

For all of the workers, evidence of a stockpile of knowledge, peripheral to health identity was found. Analysis indicated this stockpile was part of a 'sphere of health,' surrounding and interactive with health identity, but not necessarily incorporated into it. The fact that workers have a large stock of knowledge about health and things which influence it, yet don't necessarily incorporate this

knowledge into their health identity raises many questions for analysis. These are also the questions that frequently stymie health care workers and health policy analysts. Much time and effort are expended in health promotion efforts involving education of individuals about factors that are presumed to affect health, yet often with no observable impact on health behavior. Inconsistencies between knowledge and behavior abound. For example, if an individual has the knowledge that smoking is bad for health, how is that knowledge reconciled with the act of continued smoking? One possible avenue for understanding such disjunctures could be through analysis of the interaction between one's health identity and one's broader stock of knowledge about health.

If the health identity reflects a rather stable constitution of the self, the outer sphere of health reflects the domain in which changes can be made in one's health identity——the 'reconstitution' (Corbin and Strauss, 1988) of the self. The outer sphere is quite fluid and interactive with the physical and social environment. Events or acquisition of knowledge developed in the outer sphere can also become an integral part of the person's health identity. The individual can influence and improve on the health identity, by adopting desirable health behaviors, or desirable mental attitudes or coping skills. This sphere is frequently referenced when defining good health in general (the abstract), and when speaking of the individual's picture of optimal health.

ELEMENTS IN THE SPHERE OF HEALTH

The stock of knowledge in the sphere of health contains several major elements including knowledge related to potential environmental health risks, behaviors presumably related to health (as postulated by health professionals, the media, or folklore), personal experiences which have not been incorporated as part of health identity, and observations of experiences of others (Figure 1). Other identities of

the self, such as worker or parent are often part of the wider sphere of health, potentially interacting with health identity. These elements are discussed in the following section.

Potential Health Risks

The workers maintain an extensive stock of information about risks to health which are based in medical research, and about behaviors presumed to alter those risks. Such knowledge was evident in the workers' discussions of health and ideal health. The health promotion program was mentioned as a major source of such knowledge, as well as the popular media. To a less extent, such information was gained from medical professionals, or was part of a system of 'folklore,' derived from family, friends, or individual theory.

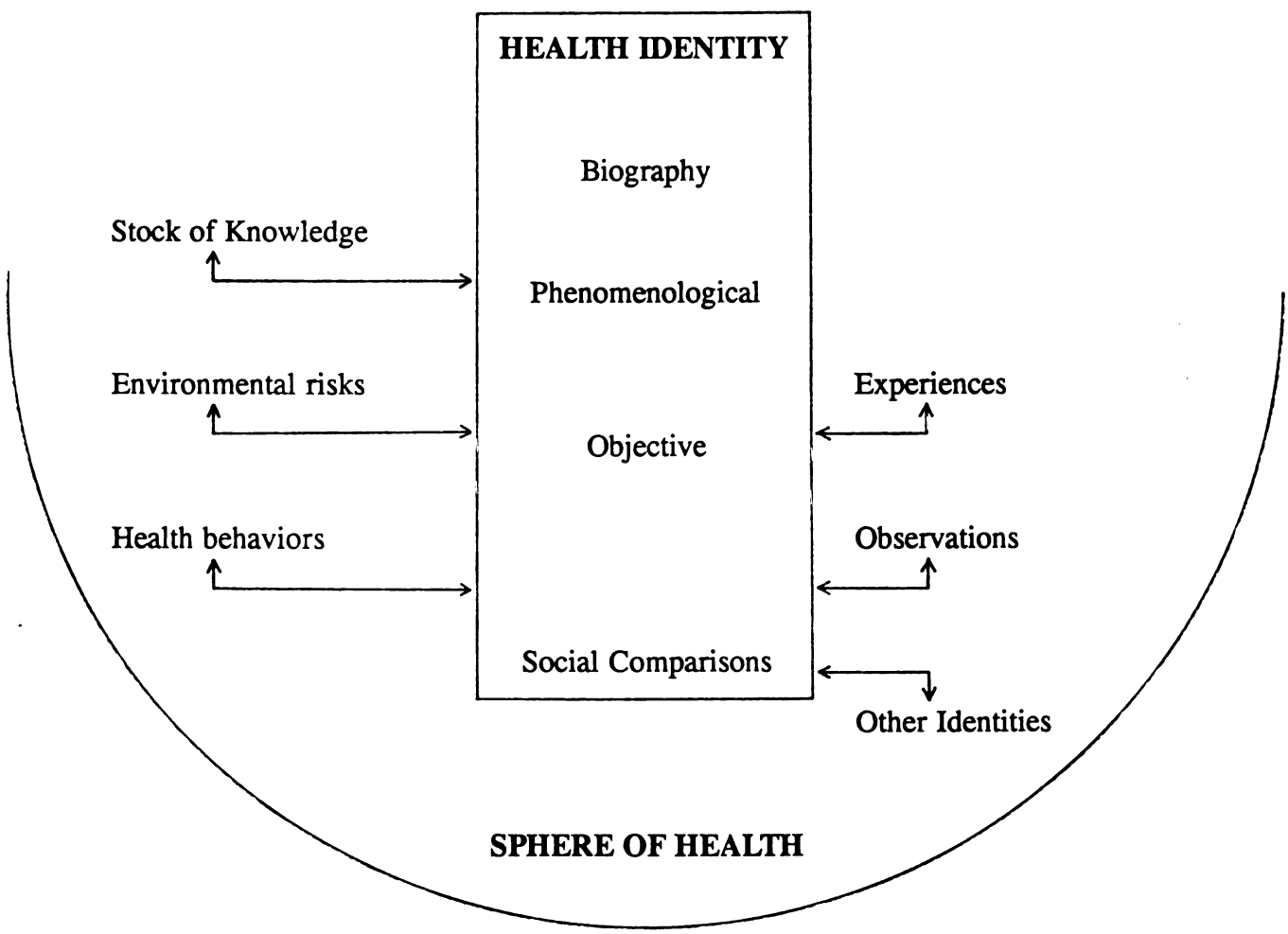
For many workers, this knowledge was incorporated into their health identities, but for others, it remains peripheral. The information seeps into awareness, the worker makes an assessment of whether or not it's relevant (whether he or she should pay attention) and adds the information to a stockpile, to be reassessed from time to time when circumstances change. For example, a young worker who reports that he doesn't ***do anything*** to maintain his health, and rarely thinks about it, notes he is thinking about it more as he ages, and becomes "not quite as lean and firm as I was when I was younger." He notes that he hasn't really been involved in the health promotion program, except for storing information for the future (presumably when his health becomes more salient):

> The information I get is the most valuable thing. And mostly I've learned about...you know you're just more aware of, you know, cholesterol, and blood pressure, and the information you [health promotion staff] give us about it, and...where we can get our fiber, and this and that. To me, I like that kind of stuff, that kind of information. [He describes information he has taken home for his wife but does not indicate that the information has become incorporated into their lifestyle].

Figure 1

The Interaction of the Sphere of Health

with Health Identity



For young workers, the information received is attended to, but most commonly stored away, rather than being acted on, revealing the centrality of temporality to health identity:

> I don't know if it [health information] has any influence. It makes you think about it a little more. [Interviewer: So the information from having a health promotion program makes you a little bit more aware, but you're not actually changing anything based on that?] No, but it might, later in my life. I feel like I'm young yet. I don't need to worry about it.

Another worker describes the assimilation of information which is highly salient to him because of his family history (part of his health biography).

> My father passed away. I've got two uncles that passed away——all three heart attacks. When you guys [health promotion staff] mentioned history, of parents with blood pressure and this and that, I thought I'd better pay attention. Although I was a lot more active then than my Dad or my uncles.

An aspect of his health biography contributes to a feeling of vulnerability as he acquires information about health risks, contributing to a heightened sense of attention. However, also evident is an immediate 'discounting' process which tends to minimize the threat to his own health identity. To the extent that he can separate himself from his family history by emphasizing his own greater activity levels, he can minimize the threat from health knowledge, and may not fully incorporate it into his identity. He thus has knowledge about risks, but does not necessarily have to identify himself as 'at risk.'

Almost every worker mentioned the actual or potential influence of work and the work setting on health, as part of the knowledge related to potential health risks. However, the workers also were aware of factors in the greater environment which could affect health, primarily in a detrimental fashion, such as drinking water

contaminated by agricultural chemicals, food preserved with artificial chemicals, air pollution, etc. Unlike responses to work influences, knowledge about the environment was a concern which usually did not generate action. It seemed removed from the immediate health identity. For example, a young production worker with an identity of being in 'good health,' and who actively worked to maintain his health, identified a major environmental concern. However, as he talked, he realized that this concern was not actually incorporated into his actions:

> In this valley, I think the air's real clean, but I don't believe the water's clean. Too many chemicals from all the agriculture, put into the ground, that I just don't think the water's clean. [He responds to the interviewer that he doesn't drink bottled water, but he wonders about the water]. I've never had it tested and I ought to or I ought to just get bottled water. I don't think it's clean, but here I am drinking it. [laughs]...here I am saying the water's not clean, and here I'm drinking it.

His discussion demonstrates awareness and concern, but no real commitment to change his behavior. This concern does not seem central yet to his health identity. For this type of knowledge, a time element seems important for action. These threats are somewhat vague and remote, not presenting an immediate threat to the self, but over time, they may become more intrusive. The following example demonstrates strategies for dealing with such remote threats. They are discounted due to the uncertainty of the data, but over time, may gain enough credibility to 'wear down' one's self-protective strategies.

> I get tired of hearing, every time you read the paper, coffee's bad for you, coke's got this, cyclamates. I get tired of hearing it. I want to yell out to these people, you know, "let it lie!" If four pounds kills a rat, let's don't worry about it and make a big national front page issue of certain things unless they're sure. Because the more you get bombarded with it and it turns out it's not that bad, then the less you're going to pay attention to it. But then the overall effect, after it's beat down to me long enough, I do respond. Sooner or later.

Uncertainty is a major factor in keeping the health identity protected from threats by new knowledge. However, even with uncertainty, such knowledge can

eventually penetrate, given time. Another young worker is extremely concerned with his health, as a result of the environment around him. This worker takes all precautions possible at work, and has made many lifestyle changes to try to build his defenses up against unseen or unknown hazards, but the knowledge remains threatening, and in this case, seems to become a part of his overall health identity:

> We don't really understand the chemicals we're using or the materials we're going to be using and...we don't care.... We don't care that we're polluting the rivers and other things. And that's got to affect all our health. And so, in a way, I kind of feel like other people are killing me, because there's no way I can really avoid a lot of it....

Another young worker describes a trajectory of awareness, which is influenced by age, and by proximity of the presumed health threat.

> ...when I was younger, I always used to take that stuff [health risks] for granted. I guess it's the immortal syndrome teen-age kids have, or something. As I get older, though, stuff like that I see in the news or whatever, I'm starting to think about it more and more. You know, like drinking water, I always used to hear all the problems they were having.... Some of that stuff really hit close to home. And now I've been thinking, I want to buy a water filtrator for water coming into our sinks, so we could have fresh water coming in there. [He is willing to make changes] when I can see real evidence of something, especially something right in my own life.

Temporality, immediacy of threats, and health as 'taken-for-granted' are major themes in examining perceived influences of the environment as potential health risks, and the responses to those influences.

Knowledge of Health-Related Behaviors

Potential risks to health through one's own behaviors, such as smoking, poor eating habits, lack of exercise, excessive alcohol consumption or use of drugs were described, as well as potential benefits of health-producing behaviors. The workers are well versed on the general health promotion 'partyline,' though it may not be

incorporated into their own identities. For example, a young worker extols the virtues of exercise, even though he does not incorporate exercise into his own life:

> Yeah, exercise is gotta be a biggie, you know, with everything that's being said about it today. It could do so much. It could bring your blood pressure, down, help your health, your cholesterol level, and all those things have to do with, like heart disease. And maybe you wouldn't feel bad if you'd go and do something. It's terrible, especially not even 30 years old and you can't even go out and play a game and not feel hurt and sore or exhausted the next day.

Family patterns inform this knowledge of healthful influences, that may become part of the sphere of health, to be incorporated into health identity years later. For example:

> My mom tried to instill all the good habits [eating vegetables,and wheat bread], whether or not I took to them.... I'm starting to come back around.

PERSONAL EXPERIENCES WITH HEALTH

Experiences with the medical care system and transient experiences with injury or illness become part of the stock of knowledge, but, again, not always incorporated into health identity. A striking example is of a worker with two work-related problems (carpal tunnel syndrome and dermatitis) which were transient. However, in speaking of his current health, these problems do not surface. They are not part of his current health identity. In speaking of these disorders, they are seen as isolated incidents, and he reaffirms his long-standing health identity.

> But I've never, ***ever*** been and still ***not***, allergic to anything. Never had dermatitis before, don't have allergies, and the same with the carpal tunnel. I've never had any problem with any of my parts of my body.... I've been real healthy all my life. The dermatitis I know was caused from here....

A major insulator in protecting his health identity as stable is the ability to attribute transient problems to the work area. They relate, not to his health identity, but to his work identity. By keeping these events compartmentalized, he can maintain a stable health identity.

Minor disruptions in health that can be seen as temporary, or that can be overcome (perhaps by tapping central reserves from the core of health) are not identified as detracting from the individual's personal health rating, thus presumably do not alter health identity. For example, an ulcer is acknowledged, but minimized:

> I'm getting an ulcer, but I can live with that. That's not bad.... [she discusses her current stress, but notes that she is learning ways to deal with it]. And now I'm bringing it out, trying to deal with it and stuff, and it [health] might be a little worse, but eventually I think it will be for the better.

Thus, the ulcer is part of the self and life experiences, and interactive with her health identity, potentially altering it. However, the implementation of coping strategies is seen as a factor which helps to minimize long-term changes in health identity. Coping strategies allow her to accommodate the problem. Another worker, experiencing an acute flare-up of back pain, separates this problem from his central health identity:

> My back——that's not health. That's more of an injury. [Interviewer: That's not really a health problem?] No, to me, it's just like a car. If it isn't running good, you take it in and fix it. That's what doctors always go for... I'm just like a digit in a wheel. I've been working for a factory for so long, that's all you can consider yourself, you know what I'm saying? To me if I've got a sore spot, go get it fixed. [Interviewer: Except you're not having too much luck getting this one fixed?] Well, I haven't really tried. It usually goes away after three or four days, you know. ...It's just a momentary thing. Like I say, after three or four days, I'll be able to handle it again, and I'll just go on like nothing ever happened, until the next morning when I reach for my shoes in a funny way, and it goes out.... You know, if I was hacking or something, had something wrong with my lungs, or had an ear going out that I couldn't hear out of...you know, that's a health problem to me. More than a recurring injury. But this, I know I can live with it. [Later, he concedes] It *is* a health problem though, but, like I say, I've lived with it for so long, I don't consider it a problem anymore. It's just a nuisance.

This worker has accommodated a recurring problem in his greater sphere of health, without really allowing it to alter his conception of his health identity. The back pain is not problematic to his identity, even though it is temporarily highly problematic to his current ability to function. Another interesting phenomenon is the interaction of his identity as a worker with his back injury. Perhaps to the extent that he sees himself as a repairable machine, health identity can be further shielded from alteration by work injuries.

Another worker is clear in his self-rating of being in good health, despite 'external' physical problems attributed to work. He feels like he's breaking down at the physical level, with a bad back, painful shoulder and elbow, yet has an identity of being "healthy":

> ...but I feel like I'm healthy——my blood pressure is good, my heart rate is good, my nose doesn't work, but it hasn't worked for a long time.... But I think...by all tests, I'm healthy. But I still have my pains, which I think are work-related rather than anything else.

The structural physical problems associated with work are construed as not critical to his health identity, because of their rather mundane nature: "I mean, I'm not going to die from a sore shoulder or a bad back, as opposed to kidney failure or lung disease or something."

If events arising in the sphere of health can be dealt with, they don't alter health identity, but become part of the knowledge of potential risks to health. An important feature of 'dealing' with such problems is based on one's resistance, or coping ability. Such ability is perceived to decline with age, as several workers noted increased concern with risks as they grew older and felt more vulnerable.

Observations of Others

Observing the health status and actions of others can be a vital source of knowledge about health, sometimes incorporated into one's own identity, and

sometimes not. Observations of others are incorporated into health identity when the individual sees major personal characteristics similar to those he or she is observing, and thus begins to feel vulnerable or at risk for the problems the others experience. For example, a young single parent observed the decline of a friend, which she saw as a fore-runner of her own potential decline:

> Well, me and this other girl, we used to hang around together all the time. [She discusses circumstances of this friend's decline——a failing marriage, getting into drugs, 'partying', and neglecting her children]. She was just losing it totally. And I think it just disgusted me to the point where I just decided to change ***me***.

Alternatively, watching the experiences of others may become information ***stored***, but not ***acted on***:

> At the plant, I think I'm probably worse off as far as healthwise [compared to others]. You see a lot more people doing, if anything, a little exercise.... People are really psyched up about this health thing, this health club here, but, uh, you know, I couldn't go play basketball tomorrow. I wouldn't even think about it. I could go and shoot the ball but I wouldn't be able to play in a game. I could go run down the dock and be worn out bad by the time I got to the other end.

This information about the exercise others are doing helps to reinforce his current identity, e.g., that his health ***isn't*** great compared with others; the observations become part of his stock of knowledge of what may be possible for him, but he does not yet identify with the experience of others of being part of the "health thing."

HEALTH AS 'TAKEN-FOR-GRANTED'

It is noteworthy that individuals can hold expansive levels of knowledge about health and its influences, and yet not identify these parameters as part of their health identities. The concept of health as "taken-for-granted" emerged as a very important part of the process of stability or change in the health identity.

Good health was acknowledged as very important by all workers interviewed. Despite its importance, for many, good health remains a 'taken-for-granted' concept. Even though these workers could clearly describe their own health, and indicated its importance in their lives, many also described the lack of daily consciousness of health.

Extending Schutz' phenomenology to the human experience of health, Idler (1979) characterized "taken for grantedness" as the typical attitude most people have toward their health. She noted:

> A healthy body functions to the full extent of its capacities, free from limitations of pain or illness. It does not demand one's conscious attention; it allows consciousness to focus fully on the external world (Idler, 1979, p. 726).

Such a taken-for-granted attitude toward health was quite apparent in several respondents, regarding either their current or past situations:

> The thing that comes to my mind right off——I took it [health] for granted. I've been basically pretty healthy all my life, no major illnesses, no major accidents, and you have a tendency to take it for granted.

Idler (1979, p. 727) noted that, "In the context of illness, health loses its taken for granted status." Responses from these workers indicated many other conditions besides illness under which health may lose its taken for granted status. Seventeen of the workers described conditions under which health became more salient in their lives, as a topic which they often thought about or worried about, or as a condition which they were purposefully trying to alter. For some, health was something which they thought about every day. Responses were analyzed to determine factors which influence the salience of health.

SALIENCE OF HEALTH

Health became increasingly salient for workers under several conditions, including emerging concerns about aging (temporality), with family concerns, when work conditions were perceived to impinge on current or future health, when critical incidents such as illness of self or others made health problematic, and with awareness of discrepancies between abstract and ideal conceptions of health and health identity.

It is noteworthy that illness was ***not*** a major factor in salience, for most of these workers. Few considered themselves as ill, or as having conditions which made them question their health. Several in the sample had perfect attendance records; the annual average number of work days used for illness was 2.47. The types of illness experienced by these workers were considered minor, and easily normalized without causing undue concern about health.

The Temporal Dimension of Health

The dimension of time is important in how these workers conceptualize their own health and the influences on it. Health identity, compared to conceptions of abstract or ideal health, is most frequently addressed in the language of temporality, reflecting a very dynamic quality to 'lived' health. Personal health is expressed in terms of peaks and trends, normed to expectations according to one's age and to the expected trajectory of aging. Personal health also is evaluated in terms of the here and now, compared with what has been in the past, as well as with expectations of future health.

One's age, and the inevitable progressive aging process are abundantly evident in discussions of personal health, surfacing in seven interviews. For example:

> Getting close to that age 40, my concerns are changing, I'm starting to worry a little about retirement. I realize——you know one commercial that hit me really well was the one on smoking, where the guy said, 'You know I'm a 40 year old male adult with good health,' and he goes, 'now is the time to quit.' And that made a lot of sense to me, which was in conjunction with my own thoughts at the time.... You've gotta do something while you've still got it.

Another worker, also in his late thirties describes a similar age awareness which influences his health perceptions:

> ...like I used to play a lot of softball,and once I got 34, 35, and I couldn't beat out them little in-field hits like I used to——I lost a step. I didn't feel any worse, any slower or anything, it's just that it was catching up with me. You just start losing steps and things like that. But I expect all that, see. As far as I'm concerned right now, I'm halfway through my life at 38.... I've got to start working towards the end now. Cause middle done come and gone.

Another worker recognizes the temporality of health, but nevertheless attributes continuity to his own health: "I was healthy then, I'm healthy now." He explicitly recognizes the usual expectation that health varies by age, but has not incorporated that temporal expectation into his own health conception:

> ...your age...you do get to feel some stuff...you know, you don't have the stamina, or if you sit working for a long time, your legs do this, and you find you can't do some of the things you used to do. And that's to be expected, but I'm not...one to say, 'Well, that's just the way it is because I'm [x] years old.' I don't accept that (laugh). I just won't accept that, no. If I was 90, I might accept some of it, but I'm not going to accept it at this age.

The future is sometimes brought in as a consideration in personal health, when anticipating improvement in health status. Two female workers discussed changes they were actively making in their life to try to improve their health, in hopes of ensuring a ***future*** of good health:

> I'm starting to exercise more, eat better, uh, think more positive about things.... Going back to some of the beliefs and ideals that I used to have, that I kind of put by the wayside. Goals that I've had for myself that I've never fulfilled.... By this time next year—— and I'm not saying I *will* be anything——I'm saying I would like to be.... And if I get halfway there, I say, "well at least I got halfway there."

A significant linkage is apparent in this worker's anticipation of future health. That is, she has begun incorporating factors from the broader sphere of health into her core criteria for health, anticipating that incorporating those factors will lead to a different future health identity. Thus, the temporal dimension of health is evaluated in terms of factors in the outer sphere of health which, over time, are anticipated to become part of health identity.

Temporality also is evident when workers talk about temporary conditions which ebb and flow, but which they can adjust to, as opposed to permanent conditions which do not get better with time. Conditions which are not temporally linked, but rather are seen as permanent fixtures, are possibly more likely to become part of or alter one's core health identity.

Additionally, pain and the deterioration which is seen to occur with aging bring health to the forefront:

> Well, I think about my health when I get pains. I don't know why. I think about my health when I go somewhere, fishing, or go hiking, or go out hunting, and work an area or walk an area that I was in before, and all of a sudden I get halfway across this field, and I used to go across this field and five other fields past it, but I go across this field and I get a cramp somewhere. That brings health to my mind. Boy, I'm out of shape. Going out and making six passes with the lawn mower, saying 'the heck with it' and go sit down. Whereas before, I used to do the whole lawn, so that emphasizes a little bit of health in my mind. Not being able to do things, like I said, quicker, faster, that all brings it up. But to have it constantly on my mind, no.

Family influences

Workers who had families often noted that concern for the welfare and futures of their children heightened their concern about health, moving it from a taken-for-granted status:

> [How much do you think about your health these days?] Very conscious of it. ***Very*** conscious of it. I have two small children that I have to raise and educate, and I have to be healthy enough to support them....and that's why I worry about it all the time.

In the area of commonly known health risks, families can be strong influences in facilitating the flow of information and contributing to the incorporation of the information into health identity. Family reaction to smoking behavior is a notable example of this type of influence.

> My daughter hates cigarette smoke. She was always hiding them from me....and the school would tell her ways to get me to quit... So I just started thinking about it.... And I had to make the decision what I really wanted. And I really wanted to quit cause I'd gone that far, you know.

ELEMENTS OF CHOICE

Those elements from the sphere of health, or stock of knowledge about health which are incorporated into health identity, sometimes result merely from the selective act of 'choosing.' Choice is seen as a prominent aspect of influence on health identity. A young worker describes his own attitude as the major influence on his health:

> So, I think as far as my health is concerned, it's been...my attitude [affecting it]. I affect my own health, and how I feel about myself affects my own health....Because of the family I was raised in, which was in a sense——it was very chaotic, and I was determined to be stable in the midst of all this chaos, I have been. I've been successful at that,...there's nothing I can't do mentally, as far as if it's affecting my body or my health, or whatever.

Good health is often seen as emerging from choices made along the way. One worker who considers himself healthy, notes that he made conscious choices about how ***he*** would live, in contrast to the family mode of functioning, which was plagued with alcohol problems:

> A conscious effort——I knew before I was married, before I had kids, that I would never subject them to what I put up with——I took an opposite course.

This identity of current good health follows a past biography of good health, which has been in part or wholly constructed from conscious childhood choices. Part of his current manifestation of choice is to exert control over his susceptibility to work stress.

SOCIAL CONTROL AS AN INFLUENCE ON HEALTH

Given the prominence of 'choice' on perceived influences of health, it is not surprising that there is strong reaction to any perception of attempts at social control on health, especially in the workplace. The health promotion program, as well as the plant's smoking ban were singled out as examples of such attempts at social control, and vigorously resisted by several workers.

> Not that I think bad of you guys [health promotion staff], but I think it's up to yourself. You guys could sit here until you're blue in the face and tell me to quit smoking, but I'll do it when I'm ready.... Yeah, I'm not going to have somebody hold my hand to do something. Because, it's like your mom. Your mom tells you "no," you're going to turn around and do it. I mean I'm 32 years old. Grow up. You know? And I know it's bad, and they say it's bad for you and stuff, and when I'm ready, I'll quit. [She discusses her perception of having all the control over decisions in her life——over smoking, eating habits, and her working conditions]. Yeah, it's my choice. But it's my life. You only live——you can't be perfect. Nobody can be perfect. And it wouldn't even be fun.

Another worker, also bothered by the smoking ban at work, and by family pressure, responds in a similar fashion to perceived attempts to control his health:

> ...I'm going to fight it when I think...society is forcing its way on me. That's a bad attitude, I realize that, but that's nonetheless the way I am. I'm just the type of personality to respond to too much pressure. But I was absorbing it...it just bothered me. The kids would come home from school with their little pamphlets and if they started preaching at Daddy too much, Daddy told them "Fine and dandy, the school's right and all that, but don't get on my case so much where it's going to be an annoying burden."

Those workers who perceived an overt element of social control from family, media, plant management, or the health promotion program, appeared to actively and consciously resist such efforts.

RESPONSES TO INFLUENCES: WHAT WORKERS DO ABOUT HEALTH

In addition to those elements that individuals attribute as influences on health, it was also informative to examine ***implied*** influences, by examining what the workers actually say they ***do*** to maintain or achieve good health. This arena of discussion represents the interaction of the ***sphere of health*** with ***health identity***. The stock of knowledge about health can be used to identify behaviors that contribute to or are part of the health identity. Most noteworthy in the discussions of what the workers actually ***do***, is the contrast between what they ***know*** about behaviors related to health, and what they actually enact. The factors which the workers act on are relatively limited. Often, in discussing what they do to maintain or improve health, they focus more on what they feel they ***should*** be doing, but are not. For example, a young male worker, who rates his health as 'fair,' does nothing specifically to maintain health:

> I don't eat good, I don't exercise, I don't do nothing. I know it would probably [make a difference] if I ate better, you know, ate more like vegetables, things that are better for you than a bunch of junk food. And maybe got more proper sleep than I do. ...I changed jobs. I don't know if this is any better.

He notes that he did change jobs because of risks of skin cancer in his previous outdoor job, but states no other explicit action related to health maintenance.

A young female worker in her thirties, who feels there is little one can do to affect one's ultimate health (longevity), identifies only her eating habits as actions she takes for health: "I try to eat decent." Moreover, she notes her choice to ignore recommendations (from the health risk appraisal) that she quit smoking and lose weight. "I just tell them it's my life." In this instance, the resistance to perceived social control is a factor in protecting her health identity from acquired knowledge from the sphere of health.

In contrast, an older female, who has focused on her health a great deal in the past year, actively reconstructing her health identity, discusses several elements of action:

> I've pretty well learned to exercise and care for back and shoulder problems. My back problem, unless I do something stupid, doesn't really bother me any more. I'm very careful about exercising, but the weight.... So, the first thing that hits my mind is if I didn't have all this weight, I'll bet I wouldn't have such a bad problem.... I have changed my eating habits to a certain degree because of my age, not my weight. I want to eat healthier, and act healthier, because there are certain things like calcium disease that women get when they get older.

This worker is in an active phase of focusing on health, motivated in part by her status as a single parent, and by her fear of health problems ("I'm terrified of a heart attack.") A dominant feature of her enactment of perceived health behaviors is the moderating effect of age.

A young male worker also gives an extensive description of things he does regarding health:

> Nutritionwise, yes. I'm very aware of what's——you know these guys eat sunflower seeds everyday, and I'm kind of like a mother: 'You guys shouldn't be eating so many of those things cause they've got so much sodium in them.... We [crewmates] used to eat a doughnut everyday, and I only eat one like every other day now. I also drink low fat milk now. I try to use olive oil instead of other types of oil now. ...I never

> used to eat vegetables. Now I love fresh vegetables.... I eat salad a lot now. [He also notes learning to control his temper]. I used to have a problem with that a long time ago. My wife helped me with that. That's not good for you.... Maybe that's part of what stress is, I don't know, but it bothers me more than anything to be that upset. On stupid things. But now I've learned. I talk to myself when I get really upset like that.

He describes nutritional action, and interactive strategies to influence the habits of those around him, as well as coping strategies he has learned for his mental health. He also notes the things he doesn't do, such as exercise, and limiting his drinking. The actions he describes seem motivated by his concern about certain aspects of his health status, such as a deterioration in the way he feels, and concern about a borderline blood pressure problem, both of which affect his health identity. In this case, action seems clearly a result of the interaction of health identity with the stock of knowledge accumulating in the sphere of health. However, he is selective about what is drawn from his health knowledge for enactment.

A worker in his late thirties, with a strong health identity doesn't do anything to maintain or improve his health. He demonstrates the interaction of a strong health identity forged in his family history, and other objective indicators that counteract any knowledge that might indicate he ***should*** do anything for his health, such as quitting smoking:

> I don't want to be over healthy. [Interviewer: What's over healthy?] I don't know, but you know, you go look at that weight chart and everything else, for your frame, and all that kind of stuff, and I hang right in with that.... I'd like to tone up my muscles and stuff like that, but I can still do a lot of things that a lot of people can't my age....So I consider myself healthy enough. If I didn't, I'd quit smoking, and start running or exercising, or something. I figure throwing around wrenches and stuff all day is enough exercise for me.... I don't have any desire ***to*** change. Somebody would have to motivate me. [Interviewer: And it would have to be something pretty impressive to motivate you?] I don't know. I've seen charcoal lungs before, and things, and they say, "This is what you're doing to yourself," ...shock therapy doesn't work too good on me. I know what I'm doing to myself. I can feel it at times like I say. But, to me, that's the worst thing I've got——health problems——is my smoking. And like I say, in all my family history, there's no cancer, and no real unhealthy people. They wear out.

A strong health identity which has emerged rather naturally, without concerted effort by this worker, serves to keep him insulated from events and knowledge built up in the sphere of health. He feels there is no indication for him to incorporate or enact behaviors to alter his health status.

CONTINUITY OF HEALTH IDENTITY

Continuity of identity across situations is important for maintaining a sense of stability. At the same time, multiple identities must be managed concurrently by each individual. Change in identities, or contradictions between identities can become problematic for the individual, and can disrupt a basic need for continuity. Mechanisms are developed which permit individuals to maintain a sense of self-sameness through many life changes. In routine situations, issues of identity are not part of conscious awareness. Likewise, when conflicts or doubts about identities occur, they may be omitted from awareness, to preserve a sense of continuity. The emergence of problematic identities can lead to a sense of unease, frustration, and difficult decisions (Weigert, Teitge and Teitge, 1986, p. 60). These theoretic issues were empirically validated in the experiences discussed by the respondents, depicting processes of change in health identity, as a result of conflict and purposeful reconstruction.

Conflicted identity

A warehouse worker in his late twenties describes himself as "not healthy," because he's not in shape and doesn't "work at it." Yet as he relates his health biography, he presents a biography of being healthy in the past:

> Yeah, Mom took good care of us. We were never sick, ***never***. In six years of school I think I missed like three days for health reasons, so I never missed school, or caught any disease, or never was in the hospital or anything. No broken bones, never sick.

However, that part of his biography has not carried over into his adult life. He reveals a discontinuity between his current identity and his past (biographical) health identity:

> I was much healthier than I am now.... I think I've been going too fast, and it's time to slow down, because my body can really feel it.... It's just that my body's saying "hey it's time to slow down...." I have a friend in (city). He works out all the time, and we were best buddies in high school. I was telling him it's not the same anymore. He said "That's because you never ***do*** anything anymore." Cause he does everything, he works out, he rides bikes, he does everything. "You gotta get out and ***do*** something." Which is right.

This discontinuity or 'occurrence of misalignment' (Strauss, 1962) is a consequence of one realm of health identity——biographical——conflicting with the phenomenological realm. The expectation for feeling healthy is established by biography, but belied by physical feelings. The biographical identity is also in conflict with the socially comparative identity. In the example above, the friend from childhood provides a comparison which reinforces the discontinuity the worker is experiencing. That is, his current feeling is not consistent with his past health biography, or with the expectations and achievement of his friend (social comparison). Such a misalignment leads to feelings of discomfiture and dissatisfaction. This worker mentions changes he is making in his life, such as eating habits, and notes the need to get exercise back into his life, although he has not yet acted on it. A deterioration in health identity, which is inconsistent with a past biography of health, and which does not seem to be consistent with norms or expectations, may provide an important avenue for making health changes to restore an ***expected*** identity of health.

A conflict in different domains of health identity can also ***impede*** ability to act on perceived problems. The worker above notes the occurrence of chest pains, which concern him, but he is reluctant to seek follow-up medical care because "I've never had health problems. I've never went to doctors. I've never had a need

to go doctors." In this example, health biography is in conflict with phenomenological health identity. His biographical health identity has not established a pattern for seeking help for health concerns. When problems arise in the current experience of his health, this subject is reluctant to act. In this case, the conflict in identity limits, or impedes action, whereas in other situations, such conflict stimulates action.

RECONSTRUCTED IDENTITY

In the face of extreme misalignments in the various components of health identity, health becomes problematic. The individual may become quite uncomfortable with aspects of his or her health, and may make purposeful efforts to realign the components, or to totally revamp health identity. Two women in the sample described such processes.

One, a single mother, discussed the time in her life when she was in her best health:

> It's when I turned around and decided that I would live life for myself. That if I couldn't live life for myself and be content with myself as I was, and respect myself and have my own integrity, I wasn't any good to anybody else.

This reconstruction of self represented a major shift in her attitude, which she felt affected her health. More recently, she began acting on other aspects of health, through the stimulus of the employee health promotion program:

> ...a lot of the things that I've read in this wellness program has made me more aware of other things that I pick up on television, or literature that I read, and has made me more conscious of the fact that I ***was*** going downhill and I'd better do something to change it. To turn it around.... Unconsciously I was allowing myself to go downhill. When I started coming to a few of these meetings, and looking at [health videotapes].... I looked at myself, and go, "Oh, well, I could get osteoporosis. Maybe I ought to take a little calcium, maybe I ought to take a little vitamins. Maybe it isn't just the kids that need these things."

Through several avenues of awareness, health identity may become problematic enough for change to be initiated. However, the ***awareness*** of the need for change and the ***motive*** to change are important aspects of the process. In the second example of identity reconstruction, a young female worker observed her best friend deteriorate through the use of drugs, losing her job and family. This worker began noting the effects of her own lifestyle on her young daughter, and decided she had to change. She changed her locale, her friends, her mental attitudes, and many of her health habits, such as smoking, drinking, and diet.

Strauss (1962) described such transformations of identity as 'critical incidents' which constitute turning points in personal careers. Such incidents may be fostered by institutional representatives; others take place outside of the formal social structure, although related to membership within them (Strauss, 1962, p. 67). His description of transformations of identity in general seem equally congruent with the specific domain of health identity, evident in the two examples cited. Both incidents of transformation of health identity were solidly grounded in social interaction. In one case, health promotion efforts, part of the work structure, fostered change. In the other, active social comparisons fostered the need for change. In both cases, the real underlying motivation for change may have been the conflict of the health identity with identity as a parent. In both cases, the workers were single parents who described great concern for the well-being of their children, which depended on the continuous ability to work. To fulfill the parental role, health status and a positive health identity assume increased salience.

CONSEQUENCES OF A 'POOR HEALTH' IDENTITY

Although most of the sample considered themselves in good or excellent health, three of the sample described health in terms such as 'not very good' or 'not real

healthy.' One subject gave this rating despite a biography of good health. Such a discrepancy contributes to a sense of conflict within the health identity, leading to expressions of a desire to change the situation.

However, a 'poor health' identity does not always engender a desire to do something about it. One subject, a young female and single parent, expressed the belief that ***no one*** has good health——that individuals are always born with some defect, such as cancer, which will manifest, no matter what they do. She acknowledges the dominant medical views that one shouldn't smoke, and should get enough exercise. However, in view of her fatalism about the origins of ill health, she expresses no real desire or commitment to make changes to improve these aspects of her lifestyle. Although a strong sense of choice and control is evident, there is also an implicit sense of powerlessness. She attributes little personal control to the individual. Thus, although she does not experience a strong positive health identity, her sense of health identity is long-standing, stable, and poses no conflict for her——she feels the outcome is out of her control. She accepts her perceived health status matter-of-factly, and lives her life without undue concern for improving health.

The third worker with a negative health identity also alludes to being unable to totally control his health, attributing his many health problems to the work setting. He admits that his own lack of exercise may play a role in how he feels, but basically, he does not perceive that any action he could take, short of quitting his job, would improve his health. Thus, given a 'poor health' identity, the implications for action differ, depending on the individual's sense of control, which may be based in some other realm of identity. Such findings may have implications for attempts to alter an individual's health status through health promotion efforts. For those individuals experiencing a conflict in health identity, such efforts may be readily received and acted on. In other situations, such efforts may be totally

irrelevant to the individual's sense of comfort and priority-setting, or to the individual's sense of control.

SUMMARY

Health identity was found to be generally stable; however, a sphere of potential influences surrounding the health identity were identified. The health influences perceived by this population were diverse, and responses to those influences were very different, depending on the individual's current health identity, and how it interacts with the biography, the knowledge from the greater sphere of health, perceptions of control and choice, one's sense of vulnerability, and one's salience of health. Dealing with the nebulous, huge quantity of health risks in the sphere of health which might interact with health leaves many questions unanswered about how workers maintain stable health identities when confronted with potential threats. The circumstances of this work setting provide an ideal case for focusing on a more limited, circumscribed set of influences on health, common to the entire group of workers. Analysis geared specifically to the responses of workers to health risks in the work setting was used to probe more deeply into the process of health identity and its maintenance.

Chapter 8
THE INTERFACE OF WORK AND HEALTH: WORKER'S PERCEPTIONS

Analysis in this chapter addresses the final research question:

Are the workers' health perceptions influenced by the structure of work and the cultural matrix of the work setting? If so, in what ways?

The empirical data from this sample provide the opportunity to examine a circumscribed set of influences on health, in one rather homogeneous social setting, to examine how different individuals construct different realities in similar situations. Although the literature of occupational specialists is replete with evidence of work hazards in almost all work settings, the ***perceptions*** of hazards by the workers are quite diverse. This is especially noteworthy in this study where all workers interviewed share a common work setting with several defined work hazards which may have an impact on health (See Chapter 5).

The interviews of workers for this study began with general, open-ended questions about the workers' health perceptions. Some workers spontaneously broached the topic of work hazards when discussing their general health. These workers perceived the workplace to be integrally linked with their health and included it naturally in their discussion of influences on their health. Other workers did not spontaneously link the workplace with health. Toward the end of the interviews, specific probes were used to determine workers' perceptions of workplace effects on health. For example, "Do you see work affecting your health or potentially affecting it? Do you take any precautions at work to protect your health? Does the plant management have safeguards to protect the health of you and your co-workers?" (See Appendix B, Interview items 17-20).

OVERVIEW OF FINDINGS LINKING WORK AND HEALTH

Questions raised in the description of the work setting (see Chapter 5) partially guided analysis of the data. These will be briefly addressed in this section:

1) Given the different types of work, the different degrees of exposure to diverse hazards, differences in working conditions (such as shift rotations and differential forms of stress), and different work cultures on each crew, are there notable differences in health conceptions related to work area?

No differences were noted among work areas. Most workers described themselves as healthy, despite any concerns about work risks. Workers were aware of different work risks between the four areas, but usually perceived other areas as more hazardous than their own, regardless of the area worked. Although the types of aches and pains and complaints about personnel, shiftwork, etc. varied by work area and crew, these factors did not impinge on the workers' health identity to the extent of being able to identify ***specific*** working conditions with overall health conceptions. That is, no identifiable patterns of concern regarding risk and health could be attributed to specific work area or crews. The uniqueness of the individual's health conceptions, in each case, superseded the influence of the work context.

2) How have workers who have been working at the plant for many years approached the problem of work hazards, compared to newer employees?

Seasoned workers actually perceive less threat than novice workers. Most workers develop effective strategies for dealing with the risks, through numerous strategies discussed later in this chapter. The newer workers have not always adopted these strategies, but presumably, over time, their views of risk either become more like the old-timers, or the worker who continues to perceive risk will

choose to leave the plant. Thus, the seasoned workers represent a self-selected group of 'adaptors.'

3) How do incidents of work-related illness and injury affect a worker's perception of health and risk for potential health problems?

Incidents at the plant are rapidly conveyed by word-of-mouth, so each critical incident is a topic for discussion. Typically, such incidents do not become reasons for increased concern, due to strategies used by the workers to protect themselves against the perceptions of threats to health, leading them to believe that 'it could happen to me.' In the instance of acute respiratory disease, however, the workers were not able to easily dismiss their concern. Such incidents. which had no explanatory cause other than work exposure, and which led to the loss of ability to work, became significant concerns of many workers. Despite such concerns, workers were generally able to accommodate to these heightened concerns. The mechanisms for dismissing concern are discussed below.

4) How do workers who choose to work in more hazardous areas of the plant approach the problem of potential health hazards?

No matter which area of the plant is the home base for the workers, they adapt to the type and degree of hazard. The initial decision to move to a different area is usually on the basis of seniority and advanced training, so areas of greater hazards also have greater prestige and pay. There is great incentive to accommodate the new hazards, and the workers are quite effective at doing so. Thus, workers in the highest risk areas usually do not perceive themselves at greater risk, or they perceive that the trade-offs are worth the risk.

5) How do the plant's policies and communications related to health, and the health promotion program's offerings affect conceptions of health?

Information received is information processed and stored, but not necessarily acted on. It becomes part of the stock of knowledge about health, retrieved when salient, and at times, incorporated into health identity. Issues of trust (in the company, in sources of data, etc.) are important, in terms of how the data are processed. However, even if the worker trusts the source, it does not necessarily ensure relevance or salience of the information. Workers develop their own philosophies and strategies for dealing with work risks, as well as other health concerns. Their strategies may go well beyond the company's minimal safety requirements, or conversely, even the minimal requirements may seem too confining to the worker, and may actually be subverted or ignored when possible.

6) Objective data on health measures indicate some health problems in workers, including hypertension, obesity, high cholesterol, smoking, and lack of adequate exercise. How do such findings relate to conceptions of health?

Objective data become part of the stock of knowledge of the worker, again, not always acted on or becoming part of the health identity. Sometimes they do become relevant, based on an individual's existing health identity, emerging concern with biographical factors such as hereditary problems, or a reaching a critical time in the trajectory of aging. However, despite the existence of health problems, these workers usually can accommodate them without altering their conceptions of their health status.

7) Given the many elements of social and physical constraints in the work setting, do the workers express concerns about social control in relation to their health?

The workers are very aware of subtle efforts from any source to control health behavior. They often consciously identify such efforts as 'pressure,' and openly resist them. Over time, they may respond, given the right social circumstances or concurrent changes in aspects of health identity which make these health behaviors

more personally relevant. However, there is no evidence that these workers comply just to be cooperative with some undefined global social goal. They set their own criteria for health, and generally stick with those until the preponderance of evidence predisposes them to making changes in behavior. In instances such as the smoking ban at work, where behavior is actually mandated, some workers do comply to assure their job security. Others still resist, but secretively.

CONCERNS ABOUT THE WORKPLACE AND HEALTH

The responses to questions about health and the workplace ranged from extreme concern about the effects of work on health, to relatively little concern. The range of viewpoints can be seen in the two examples below. A middle-aged production worker is very concerned about his health and certain that work is related to his health problems:

> I think mainly the problem is, I've noticed a deterioration in my health.... I think part of my health problems are related to my job. My lungs are bad, I've got a bad back, my hearing——I've had real bad problems with hearing in the last 3 years, but the last year especially.... So I think that's one of my concerns, is the fact that I'm working here, kind of trapped here. ***I'm killing myself slowly.*** [Emphasis added]. (Chuckles) I don't really feel that way but it's not really healthy.

At the other extreme is a maintenance worker, who minimizes concern with work hazards by placing them in perspective with hazards in the everyday world.

> I don't think working in this factory is being exposed to anything worse than working on a farm or across this road here, at all.... You're driving home and this airplane goes over you——whoom——a duster cloud. You could work here 10 years and not be exposed to as much as you're exposed to in one shot there. You know? So, they're worried about everything out here because it's a big corporation and I realize OSHA and everyone is pushing on them. But this isn't bad compared to the situation we're in all around.

Most of the interviews revealed views on a continuum between those two extremes. However none of the subjects is ***unaware*** of potential work hazards. Although the awareness of a real or potential linkage between work and health is evident in every interview, the perceptions of the ***degree*** of risk, and the consequences of those perceptions vary markedly. This awareness becomes part of the broader sphere of health, interactive in diverse ways with health identity.

WORK RISKS AND CONCEPTIONS OF HEALTH

A wide spectrum of perceived work-related health problems was identified by the employees, including:

back, neck, muscle and joint problems;
respiratory problems;
dermatitis;
effects from 12-hour shifts and night rotations
(such as sleep disorders, disruption in eating habits, irregular exercise, and fatigue);
effects of noise;
effects of working under temperature extremes;
stress and people-related problems;
tendonitis and carpal tunnel syndrome;
nosebleeds from working with fiber;
varicose veins and leg ulcers from standing for long periods;
minor burns.

In addition, concerns were expressed about the chemicals, fumes and dust involved with the product, whether or not these could be linked with specific problems.

The types of problems identified reflect the problems discussed widely in occupational health literature. However, although all workers are exposed to moving machinery, and the literature notes this as a hazard to workers' health, ***no*** concern was expressed by the workers about the hazards of working around machinery. This aspect of the workers' risk may be part of a taken-for-granted realm of the work world. This omission is interesting, given that there have been injuries involving fork-lifts, and a recent close call accident involving a worker

getting his shirt tails caught in moving machinery. This type of injury was labeled a 'dumb' injury by one worker, and thus not considered a work hazard because it could be avoided if one would 'just think about it.' If the worker is seen as being at fault through negligence, an injury is not really considered to be work-related by co-workers. Likewise, most workers do not feel at risk for this type of injury.

Common problems are experienced by a great many of the workers, including exposure to temperature extremes, 12-hour shifts, back and joint problems and noise. However, the ability of the individual to adjust to those problems is highly variable.

Although widely acknowledged as ***potential*** problems, some health-related problems are perceived by some workers as actual health concerns, while other workers express no concern. For example, noise is pervasive in most of the production areas in the plant. Noise, for one worker "has a tendency to key me up, keep me on edge a little bit." The response is more extreme for another: "...without ear plugs, I think it'd drive me crazy." Other workers seem totally oblivious to the same noise and never bother to wear ear plugs. An individual variation in ***response*** to common problems is evident.

Thus, even though potential problems are commonly known and widely evident through many channels of communication, not every worker perceives them as concerns which are highly relevant personally. They do not penetrate to the health identity of every worker.

The individual variability in perceptions of hazards to health depends in part on sources of information regarding work hazards, and on how the individual deals with such information. The analysis of these processes led to two major dimensions——the process of awareness, and strategies for managing perceived work risks.

AWARENESS OF WORK-RELATED HEALTH RISKS

Although some potential risks are known and easily identified, others are not so overt, and workers may not be uniformly aware of them. Workers become aware of work hazards through several processes: information supplied by the company; information exchange between co-workers (including the plant grapevine); information from sources outside the plant; direct sensory perception (visual, olfactory, auditory); and the occurrence of critical incidents, such as individual injury or illness.

Awareness and concern about potential hazards proceed through a trajectory or a progression of salience, with sensory inputs, and critical incidents providing the most powerful impact for increasing the salience of work risks, resulting in actual threat to the health identity.

Information Supplied by the Company

The company provides initial orientation of new employees, presenting known health risks and safety measures (See Chapter 5). Employees integrate the company information in varying degrees——at times reassured by it, at times highly distrusting and concerned. For example, a maintenance worker expresses a partial sense of reassurance from the company data on the effects of fiber, yet an element of doubt remains:

> I haven't really worried about it [fiber] that much...with the research that they've done, and the information they gave us, that, you know, the [fiber] really never was that big of a hazard unless it was physically implanted in the animals that they test on. But that still doesn't mean anything. I still think about it. Even if the [product] itself wouldn't hurt you, I feel that the chemicals they use on it would hurt you if you get enough of it.

In the information supplied by management, the general theme is that independent research has not proven any harmful effects of the product, and that

studies are continuing. However, over time, previous data and conclusions may be contradicted, or a new safety feature will be implemented when none was claimed to be necessary in the past. There is an element of uncertainty and inconclusiveness inherent in the official statements, resulting in ambiguity. Awareness may then become a problematic process with workers uncertain of how to interpret company data. This struggle with ambiguity is apparent in a young production worker's discussion:

> You know, they do all their testing out here and stuff. And you kind of wonder about it, you know. They say that, what if they come back in 2 years, say "hey, we're sorry, this dust really does cause cancer, or this really does that," you know. Sometimes I kind of wonder if they're telling us the whole story, but I know that they've tried. You can see all the safety that they go through out here, trying to make sure that we're safe and stuff. I ***think*** that they're trying. They really are, but there's not much more you can do with [this product]. You know it's not good for you.

Such uncertainty may evolve to overt distrust of the company and of the scientific community as reliable sources for informing workers:

> Management controls the amount of information we get as far as what's going on. And they try——they make a point of showing us these little films, which are supposed to either——I think it massages their guilt and supposedly lets them off the hook legally or something, I'm not sure. But the films are fairly technical and not really informative. They don't really tell you "this causes cancer." So, at any rate, they say...your body's own immune system is going to be able to deal with it. Well, I don't know if I necessarily believe that. [The company] has a history of being socially irresponsible.

If the company data is interpreted as problematic in terms of risk potential, it may be further evaluated in terms of other sources of knowledge such as sensory inputs, or critical incidents in the plant.

Information from Other Sources

The employees also derive information from several other sources in addition to the plant's efforts. These sources include the media, warning labels on products used at the plant, and articles on research findings.

One production worker who reads extensively, has supplemented the plant information for himself, concluding there is a great deal of inconclusiveness in the literature, and certainly no assurances that the product itself is virtually safe:

> And nobody has convinced me ***yet***, no matter how much ***I've*** read on it——you know, read one thing and you feel good about it and a month later, you read another article——maybe reading's what makes me get in trouble. But anyway, they say, "well it's just not that good for you," and I'm a little concerned....

The official information supplied to workers offers sources where additional information may be obtained. At least one worker sought this extra information:

> I wrote to the address they give you for any of their information about all the studies that have been done. I got all that information and I was very aware of the environment here. I was more worried than aware. I really wanted to know.

The products utilized in the plant often carry their own warning labels, which can inform the worker of potential risks. One worker produced a warning label he had just removed from oven bricks he was installing:

> ...working with those bricks and things like that, I know it's probably not good for you...they're chromium or something.... (He produces a sticker from a product package). "Product contains materials that can irritate eyes, throat and lungs...inhalation of dust from this product can damage lungs. Wear appropriate protective devices...."

Task forces made up of workers often deal with specific problems, and data gathering becomes part of their strategy. For example, workers on the task force to gather information on a proposed change from 8-hour shifts to 12-hour shifts investigated the effects of 12-hour shifts by doing a literature review, and also

visited other plants to determine worker perceptions of 12-hour shifts. Data from the task forces are distributed through informal networks, and do affect worker awareness and knowledge. The task force used the data acquired to design a 12-hour shift rotation which was eventually voted in by the workers after much plant-wide discussion of the task force data.

The workers in this plant do not rely totally on official company sources for knowledge about their work environment and its potential health hazards. Depending on their individual degree of concern and involvement, several sources exist for extending the pool of information. The degree to which workers seek out such alternative sources of information depends on how trusting they are in the company, as well as the degree of uncertainty experienced. The physical and social structures of the plant permit a large amount of information flow between workers.

Social Interaction as a Source of Awareness: The Company Grapevine

The plant grapevine is highly effective at distributing information of concern to the workers. There are many opportunities for social interchange at work stations or on breaks. There is also much incentive for conversation, especially to relieve job tedium. Although the workers who were interviewed indicated they do not commonly discuss ***general*** health issues with each other, each work-related health issue is usually an active topic of discussion in the breakroom. It is likely that awareness of health problems gained from the critical experiences of others, as well as information obtained through outside sources becomes a part of the company grapevine.

At times, the company efforts to keep the workers informed of potential health problems are not enough to keep up with the active grapevine of worker speculation, especially as it relates to the recent occurrence of respiratory problems on the 'hot end':

> ...I don't think they really keep us aware too much of the changes and what's going on. They say safety is number one——but I don't think they really go by it——they say they're trying to communicate better, but I don't think they're communicating as well as they can be on what's been going on up there. People lately have really been concerned, and it's just——there's been a lot of talk lately...if they either know what's going on, they haven't communicated it, or they just don't know or they haven't even been trying to discover what's going on. They say they are, we really don't know, and that's been a big question for everybody, is "What the heck's going on?"

Such discrepancies between company information and grapevine information contributes to the uneasiness and uncertainty surrounding the problem, heightening the awareness process.

Sensory Perceptions

The workers' own senses provide a critical and powerful element for the awareness of work-related health concerns. Visual, olfactory, and auditory avenues of information are prominent. In addition, the occurrence of fatigue, pain, itching, and general physical complaints are often attributed to the work setting.

The visual and olfactory senses help to formulate many of the workers' concerns about the chemical hazards and the hazards of the fiber itself. The sensory experience of the individual is enough to call into question the validity of all the company-reported research which indicates relatively low risk in the products. A young production worker on the 'cold end,' where the dust is a major concern of workers, vividly describes the sensory impact:

> ...maybe I'm more aware of it [the environment] because I work in an environment which I perceive to be uh——hazardous. You know, every time I see a particle of [fiber] floating in the air——or the image that really comes to my mind is when they open the bay windows and the sun comes through, and it catches the [fiber] particles just like it would the dust in your house, except here, the [fiber] just sparkles. And so you get this incredible shimmer of colors, but at the same time,...I think it's deadly. So...I wear a respirator all the time. I don't ever walk out on the floor without something over my mouth, cause hopefully I can protect my lungs, but it could be coming though my skin.... I kind of feel threatened.

Critical Incidents

Incidents such as illness or injury occurring to the individual worker, or heard about through the company grapevine, provide another powerful source of awareness of work-related health concerns. Such incidents may be significant enough to cause concern, despite former faith in the reassurances made by the company. Such concern emerges even when the cause of the problem is not determined with certainty. The most significant incident leading to increased general awareness of work-related health concerns is the occurrence of acute respiratory problems in three workers, which many believe to be work-related. A long-time employee, who has been relatively unconcerned about work risks before, reports "I have concern *now* [regarding health problems in co-workers] with that incident of that asthma developing in people——people that haven't had it before." The powerful stimulus to awareness that occurs with such critical incidents can lead to a 'reconstruction' of a prior perception of low risk. Nearly every worker mentioned concern with such incidents. Such a reconstruction of risk facilitates incorporation of information from the broader sphere of health into health identity. The worker may construct an altered health identity of 'being at risk.'

A TRAJECTORY OF AWARENESS

Awareness may proceed through a trajectory, with sources other than company data emerging as dominant over time. The worker may initially be more prone to accept scientific evidence presented by the company as valid——the authoritative word. However, a growing awareness of conflicts and contradictions in scientific studies may result in less certainty regarding the scientific data. Other sources of information may then become more important in the workers' perceptions of work-related health hazards. In the following example, the trajectory of awareness is evident, as reliance on company data gives way to sensory perceptions:

> They [the company] gave us independent studies...for the first ten years——independent studies. All studies were that [the fiber] was non-harmful to you. Rats bred and lived and raised their little rats better in [the fiber] than they did in anything else. And this is what we read and what stuck in my mind. And then, you go out there and you look at a shaft of sunlight, and this is where your awareness comes in, that's when you see the stuff in the air all the time.... But just looking out there, I think a sane person would say, "hey, I can't breathe this all the time, it's not doing me any good." ...it's a realization——you can't put anything in your body like that.

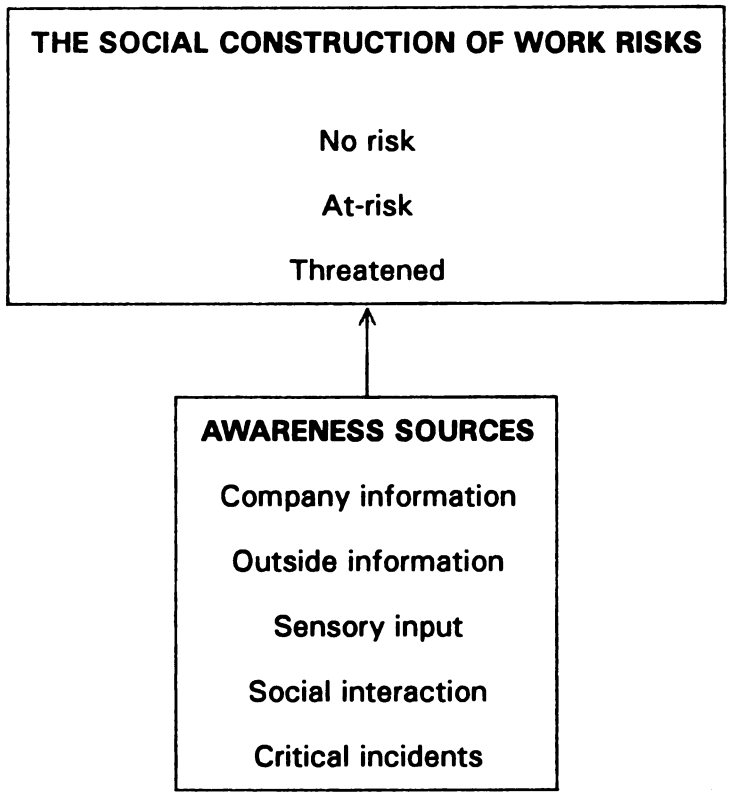
THE SOCIAL CONSTRUCTION OF WORK RISKS

Workers become aware of potential health-related work risks through multiple sources, including information from the company, sources outside of the company, sensory input, social interaction, and critical incidents (See Figure 2). Data from one source may complement or reinforce data from another source, strengthening the awareness, or conversely, may provide conflicting information to the workers. In making sense of conflicting information, workers may emphasize, or trust one modality over another. Sensory inputs and critical incidents are extremely influential modalities for the workers' perceptions of health risks. These appear to dominate the other sources of input, leading to changes in the perception of risk with resultant threats to health identity.

The individual worker also integrates multiple awareness modalities into personal theories about the relation between health and work risks, constructing a personal account or commonsense theory to make sense of conflicting data. For example, the company man taking air samples tells an employee that water breaks down all the inhaled particles in the body, so they don't stay in the lungs. She replies "Yeah, but it still dissolves all the chemicals into your system. I mean, they're still there, even if they dissolve and break down. Wouldn't they still be there?" She notes that he can give no satisfactory reply to her theory.

Figure 2

THE SOCIAL CONSTRUCTION OF WORK RISKS



The worker is not a passive recipient of received knowledge, but rather an active participant in constructing his or her own knowledge about work influences on health. These constructions are part of the social environment, informed and refined by social interaction, and becoming part of a general consensus of groups of workers. However, a different consensus may exist within a limited group of co-workers, with different crews and work areas developing their own theories and responses to risk. It is noteworthy that the consensus of risk can vary from work crew to work crew. One production crew perceives airborne particles as highly hazardous. Almost one hundred percent of this crew wears masks in the main work area, even though masks are not required. Another crew, working in the same area but on a different shift rotation rarely wears masks. Thus, the social construction of risk can be highly variable within slightly different work cultures.

OUTCOMES OF AWARENESS

Regardless of the source or sources of data leading to awareness of work-related health concerns, the awareness of potential long-term hazards usually is couched in uncertainty. That element of uncertainty or inconclusiveness may either increase or decrease the employee's concern about the potential effects on his or her health. A trajectory of concern may evolve, from initial perceptions of no risk, to perceptions of some degree of risk, to a state of feeling actively threatened by the work environment. Presumably, on reaching a critical point, workers who felt their health was being threatened would quit. However, that is not the typical outcome. Instead, workers usually plan for long careers at the plant and, given the low turnover at the plant, most are fulfilling their plans.

Awareness of work risks becomes couched in a social construction of risk which takes into account many other aspects of the worker's life, besides the immediate work environment's potential effects on health. The work and health

linkage is placed within the context of the rest of the worker's life——other identities and their concomitant responsibilities. The workers have families, hobbies, outside goals and lives, dependent on the generation of income. Most consider that this plant meets income needs quite well. Thus, they must come to some balance between their desire for the work, and their concerns about the linkages between work and health. Most come to this balance through strategies for managing the work-related risks which help to maintain a stable health identity (Figure 3).

STRATEGIES FOR MANAGING WORK-RELATED HEALTH RISKS

Despite the general consensus of the existence of real or potential linkages between work and health, the individual responses or strategies for coping with those hazards, are multiple and diverse. All the workers are aware of several potential health risks related to the work setting. The type of risks, the sources of awareness, and variations in awareness have been described. The following section discusses responses, or strategies of workers to these risks. Responses to work-related health risks emerged in three major categories (See Figure 4):

1) ***cognitive strategies*** to evaluate the degree of risk and susceptibility;
2) ***personal control strategies*** to adjust to perceived risks or to minimize (discount) their effects;
3) ***interactive strategies***, to alter the degree of risk or to influence others regarding the risks.

Cognitive Strategies

Cognitive strategies are those occurring internally in the individual to assess the degree of risks and one's own personal susceptibility to risks. Once a potential risk is perceived, through any of several awareness modalities, the individual creates responses to that awareness. Initial strategies are those in which the individual

Figure 3

RESPONSES TO WORK-RELATED HEALTH RISKS

The Social Construction of Risk

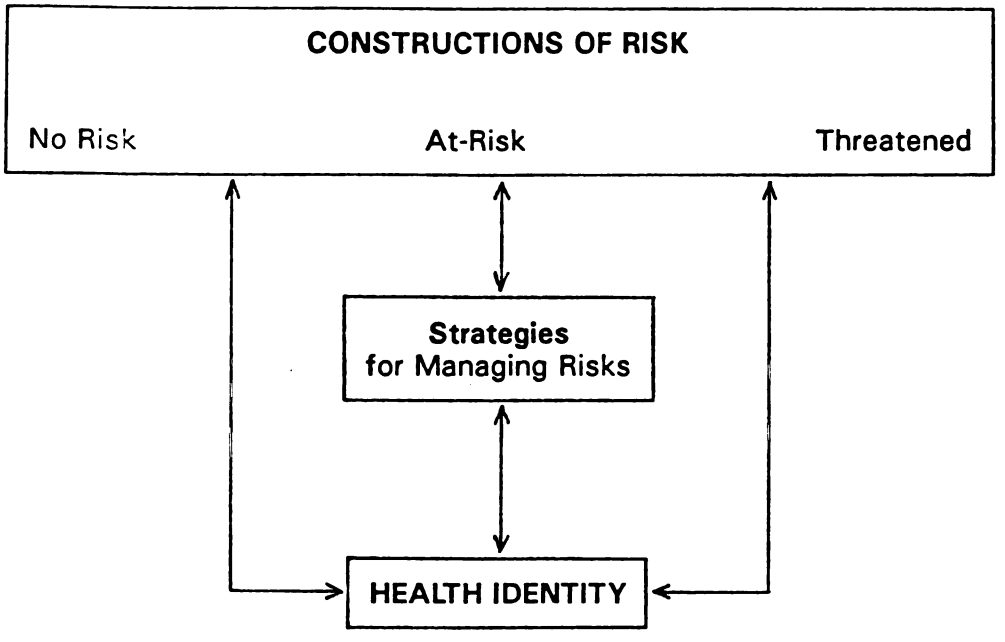
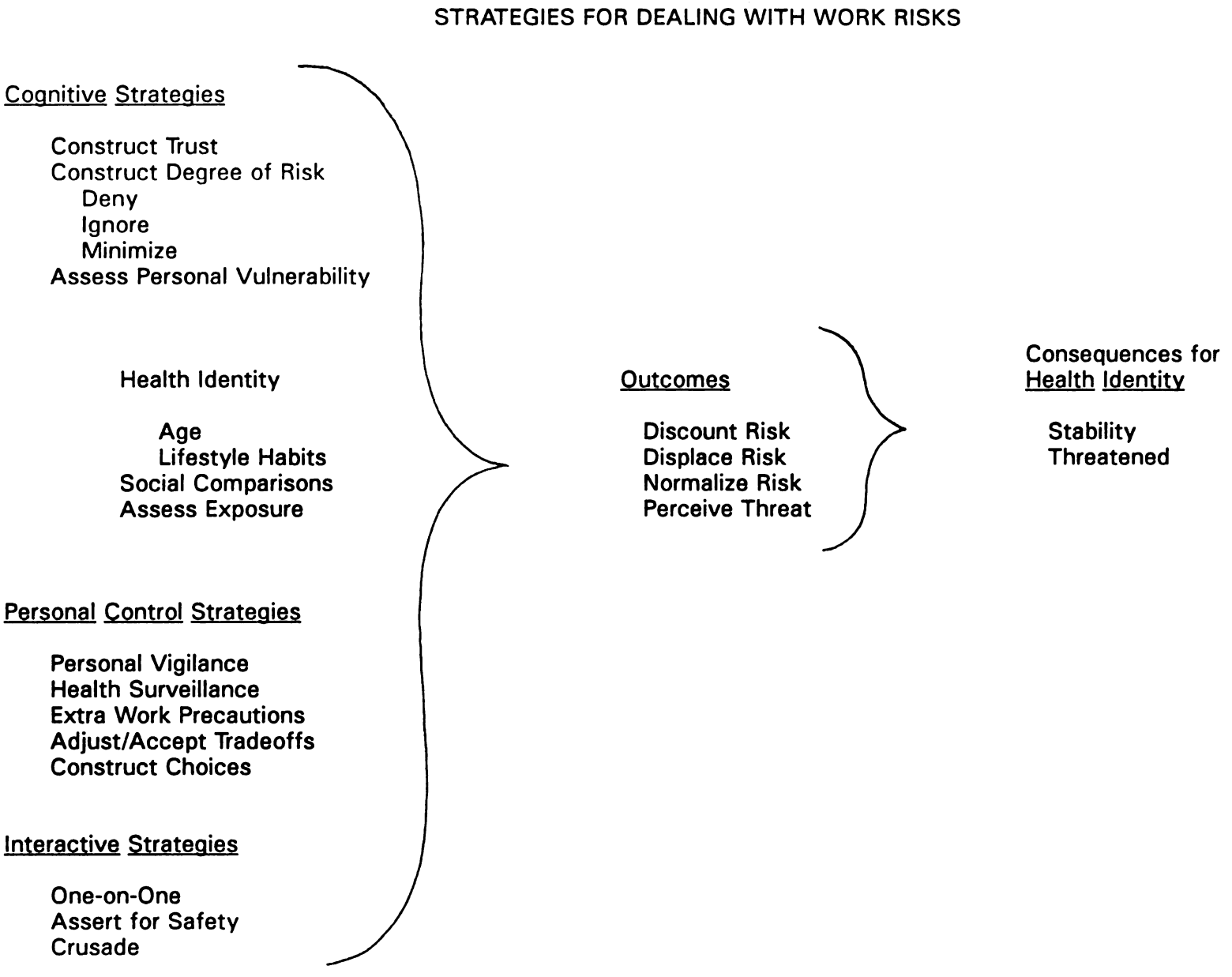


Figure 4


STRATEGIES FOR DEALING WITH WORK RISKS
Cognitive Strategies
Construct Trust
Construct Degree of Risk
Deny
Ignore
Minimize
Assess Personal Vulnerability
Health Identity
Age
Lifestyle Habits
Social Comparisons
Assess Exposure
Personal Control Strategies
Personal Vigilance
Health Surveillance
Extra Work Precautions
Adjust/Accept Tradeoffs
Construct Choices
Interactive Strategies
One-on-One
Assert for Safety
Crusade
Outcomes
Discount Risk
Displace Risk
Normalize Risk
Perceive Threat
Consequences for Health Identity
Stability
Threatened

thinks about the possible risks to determine the type of response needed. These 'cognitive' strategies include: constructions of trust, constructions of ***degree*** of risk (minimizing risks, emphasizing uncertainty), and assessment of personal vulnerability.

Constructions of Trust

The assessment of risk and vulnerability depends, in part, on how well the worker trusts the company to keep the employees well-informed and to institute an appropriate level of safeguards. Constructions of trust may result in faith in the company's efforts, leading to a decreased sense of vulnerability, or to distrust of the company's efforts and increased perceptions of vulnerability.

Several of the workers expressed faith in the intentions of the company, and the overall integrity of the company. Even so, there is enough uncertainty that no worker gives an unqualified expression of trust in the company. A degree of reservation remains, which keeps the individual open for more information or evidence. However, the element of partial trust can give the worker some degree of reassurance and decrease worry, at least for a time, as expressed by a young female worker, and a seasoned male worker:

> I've been out here 5 years and I really haven't seen too many things backfire that they've said, so, I think they're pretty much on the up and up, but I don't want to go out and say that and turn out to be a big dummy, either.

And:

> I like to give them credit for that [actively protecting the employee], and I still have enough faith in them to believe they try. I think that's the way they believe too, that all this stuff is definitely safe——the studies, they read them and believed them too. Now, they're more knowledgeable, and they're sharing their knowledge with us. I have to say, basically speaking, they care. They try. I think we're getting the latest available....

In many instances, the company's efforts are perceived as inadequate or deliberately misleading, contributing to a construction of ***mistrust***. In an atmosphere of mistrust, the employee often feels heightened concern for his or her health in the work environment. For example, with the recent onset of serious respiratory problems of three workers, speculation about the company's efforts to determine the causes and to communicate to the employees has been rampant. The workers who evidence mistrust of the company manifest a greater sense of personal risk, and often take a very active individual role in trying to safeguard their own health at work. Two of the workers who were most concerned about their health in relation to work were college students actively pursuing other careers; both actively used protective devices such as masks at work, based on their heightened concern.

Constructions of Degree of Risk

As awareness of potential health problems emerges in the individual's thoughts, the individual responds in ways which make these problems more or less salient. Risks may be ignored or denied, minimized or placed in the context of bigger problems, or risks may be examined in the context of uncertainty.

Despite the concern of most of the workers about the fumes on the 'hot end', and the general agreement that a higher degree of risk exists there, it is still possible for an employee to construct a perception of low risk by denying or ignoring the general consensus. One 'hot end' worker, considered to be in the highest risk job, does not see himself at risk, and takes no special precautions against what he determines as "some unforeseen possibility." He complains about the plant's restrictive new safety regulations which require him to wear a respirator: "...so far, nobody has found that we breathe an excessive amount [of toxic fumes]." This worker capitalizes on a degree of uncertainty in order to deny risk, and to feel

less in need of protection than others have determined. ***Uncertainty***, then can be a condition for ***denial*** of risks.

Risks may be ***ignored*** rather than overtly denied. In response to questions about the potential effects of fiber and chemicals, a young production worker who takes very few precautions at work, replies, "...it's in the back of my mind, but I don't ever really think about it." She sees the consequences, including possible cancer, as somewhere down the road, but is not bothered by it now. Her concerns are neatly compartmentalized, out of her every day awareness, to decrease the perception of risk.

Another strategy is to accept the inevitability of risk in everyday life. A young warehouse worker acknowledges the inherent risks at the plant: "I knew it was a hazardous place, and I know you can't live forever. So I figured that I'd just take my chances...." This worker minimizes concern about these risks by constructing risk as unavoidable in life, thus it must be accepted. However, even acknowledging the presence of risk, he does not perceive his own health to be at all affected by the work environment. He combines a blend of fatalism and a perception of isolation from the main problem areas of the plant to decrease his perceived risk.

Risks of working in the plant may be interpreted as part of a larger environmental context. Two workers expressed little perception of risk at the plant, comparing risks at the plant to the bigger environmental picture.

> ...whatever I've been exposed to, the 13 years that I've been in this plant have a minute effect on me compared to what I've associated with.... This isn't bad compared to the situation we're in all around.

Another worker acknowledges potential risks at work, but they do not have the significance for him that the problems in the greater environment present:

> I worry about——and I'm a firm believer that nature tells us, you know, a biological clock, watch out. But we don't listen. When I see pheasants that used to be by the thousands, now by the hundreds, when I see ducks by the millions, and now by the hundreds——something's going on. Something's going on. And Mother Nature has a way of saying "pay attention."

The mechanisms of denial, ignoring or minimizing risk may result in perceptions of minimal risk for many workers. Despite these strategies, the outcome of cognitive strategies for many is a perception of work hazards as a real threat to health.

Assessments of Peronsal Vulnerability

Several workers ***do*** perceive risk, as the worker who feels the job is 'killing me slowly.' Once cognitive strategies have resulted in a perception of risk in the workplace, the worker assesses his/her personal relation to that risk by making assessments of susceptibility or vulnerability to the risk. Health identity is a key dimension in the assessment of vulnerability, along with assessments of lifestyle habits, social comparisons of risks of others, and assessing the degree of exposure. Most typically, the outcome of this individual assessment is to ***discount*** the individual's susceptibility, thus decreasing the concern about work-related health risks.

The phenomenon of risk is often displaced to others in the plant who the worker perceives to be relatively ***more*** susceptible than he or she is. Risk and susceptibility are constructed as ***relative*** problems, dependent on inherent individual characteristics. For example:

> ...guys have had to quit because respiratory-wise it was too much for them.... I've even heard of one or two people becoming allergic to the fibers——it starts to bother them.... Yeah, I think a person who has a real tendency to allergies could have a real problem out here.

This hot-end worker is in the same high risk area as others, but construes his vulnerability as less than others, in part, because he does not perceive himself to have a tendency for allergies. Thus, a strong health identity serves a protective function.

A similar assessment comes from a maintenance worker, who works in all areas of the plant without difficulty:

> A lot of it, like you say, genes and how a person reacts to all that stuff. You know, some people can't go on the hot end because it chokes them up just walking in there, and other people can't go on the cold end because the dust chokes them up. Other people go wherever they want, and nothing bothers them.

On the other hand, an assessment of increased vulnerability may occur, as in this instance where a worker has a clear history of cancer in his family, and a health identity which is only 'fair':

> Uh, they say breathing that stuff in the air, the [fiber] won't hurt you, but in my opinion, that just depends on the person. You know, some people it might irritate their lungs, and you know, they might get cancer from it, and another person it won't.

This worker has already changed jobs once because of increased exposure to carcinogens, but now feels this job may not be any better.

Social Comparisons of Others' Risks

When other workers ***do*** develop problems, an individual may examine personal attributes of the afflicted workers to determine qualities which may have made ***them*** more susceptible than the individual. Those attributes examined include personal biographies, health habits, or degree of exposure.

A young production worker discusses the problem of two workers who developed lung problems, in response to whether she feels at risk. She ***does*** feel at

risk, but qualifies her susceptibility by looking at how she might differ from these workers:

> One of them I guess is 100% disabled from the batch, you know, that she's inhaled and stuff, into her lungs and stuff. They're heavy smokers. I don't smoke, and so that kind of helps me out, there, and they also say that maybe they did drugs or something like that. I don't know if that has an effect. It depends I guess on which ones they do. But since I don't do any of that, I'm not that worried about it. But, still, you're still inhaling that.

Her health identity, which includes a perception of living a healthier lifestyle than the afflicted workers, offers a perception of partial protection from risk. A strong health identity serves as a filter for the perception of risks.

Normalizing Strategies: When a worker does experience problems, he or she may make a quick comparison with others, to achieve a reassurance of 'normality' in this event. This process is extremely common when dealing with the negative effects of 12-hour shifts and shift rotation. The disruption in sleep, the problems with fatigue and muscle pain, disruptions in family life and disturbed eating patterns become seen as 'normal,' and little concern develops about them. For example, on the shift rotations few workers get adequate sleep, but it's expected and not readily identified as a health concern:

> ...I don't sleep like I do at night. You know, at night I'll get 7, sometimes 8 hours. During the day, 4, 5, 6 hours tops. And I think that's based on a lot of stuff. ***Everybody I think is similar.*** [Emphasis added].

Almost everyone experiences exposure to temperature extremes, and it's easy to compare one's own responses with others, when a problem is seen as ubiquitous:

> Like those days it was 100 and something, ...boy, it saps the strength out of me. ...I perspire a lot, and...it makes you more tired, I think. By the time you go home, you're just beat. ***I think everybody's that way*** [emphasis added].

The dust is also a ubiquitous problem, seen by many as a fact of life, and normalized: "The...dust flies over, I mean, that kind of chokes you, but ***it does just about anybody*** [emphasis added]. You have to get a respirator to still work." These perceptions of individual responses being normal contribute to this worker's sense of not being vulnerable to risks in the workplace. Normalizing strategies allow common health risks to become part of the 'taken-for-granted' background of work life. Likewise, the resulting physiological responses become part of the taken-for-granted experience of the body.

Assessing the Degree of Exposure

The work area and the type of work also inform the worker's assessment of vulnerability. 'Cold end' workers frequently express relief that they don't have the same exposures as the 'hot end' worker. For example:

> I wouldn't work at the hot end here. It worries me. There's too many people with too many things going wrong. With the fumes and stuff up there. It's not for me.

The areas of the plant considered at greatest hazard, based on illness and injury, are the 'hot end' and the warehouse. Although these risks are commonly known, it is interesting that workers in these areas actually may perceive others in the plant to be at greater risk. For example, a warehouse worker does perceive the potential for risk, but keeps it in the back of his mind, not worrying about it. He constructs the risk as relative to the work area: "I'd probably worry about it more if I was on the cold end. Or the hot end, 'cause they say the hot end is getting really bad now." He seemingly ignores the general consensus that the warehouse is one of the highest risk areas for injury, by giving more salience to the current rash of respiratory problems in other areas. Social comparisons which indicate that some

one else experiences higher risk contribute to a construction of comparatively lower risk for the individual.

A 'hot end' worker feels he works in a safe environment because he feels competent and in control of the machinery. However, he worries about the exposure of other workers in an area he considers to be highly hazardous:

> I call it the second level. It's down in the boxes where all the fumes are and everything else...where we are definitely finding out we have some problems.... It's not going to affect me....

Individuals seem to accommodate risks by building coping mechanisms which they perceive as protective. In viewing risks in other areas, they may then perceive those risks as greater than the risks in their own area which have been accommodated by coping strategies.

Age and Vulnerability

Age emerges as a powerful variable affecting the assessment of vulnerability. In some cases, increasing age makes the worker feel ***more*** vulnerable, as in a production worker in his fifties:

> I just don't feel that I can cope with it as good as I get older. That the changing of the times [shiftwork] and on your feet so much, and breathing that much [fiber] and stuff like that, can just really be that good for you at this point.

However, some of the work risks may be diminished by the increased capability and emotional stability which accrue with age, as in the viewpoint of another worker in his fifties, giving advice for younger workers:

> What people don't realize, especially young people, work, and work as you do it each day, has got to be enjoyable.... Even if you have to take a less paying job, but don't do something you don't want to do. Because that can wreck your health quicker than anything.

This worker feels at little risk from his job, with a high sense of control at work, based on his years of experience. His seniority also gives him a feeling of decreased vulnerability, as he is in the job of his choice. However, age is a double-edged sword as physically, age does lead to perceptions of greater risk for this same worker, if he were required to move to another area with different exposures as a result of plant modernization:

> ...hey, I'm not a young chicken no more, and I don't want to be breathing something that could be irritating me at this age level.

Personal Control Strategies

In the face of perceived work risks, the worker commonly employs strategies which make him feel more in control of the situation, and potentially less vulnerable to work-related health problems, or perhaps more resigned to them. These strategies include personal vigilance and constructions of choices.

Personal Vigilance

Personal vigilance includes actions taken to improve or maintain one's general health, increased health surveillance, and active precautions at work. A strong emphasis on individual responsibility for health at work emerges. For example:

> ...as far as physical health, in the workplace, what does somebody expect, when you're exposed in a thing like this? You can only stay as healthy as you try to be. You know, take whatever preventive measures you feel are necessary....

General Health Actions

Taking care of one's general health is a strategy used by several workers to decrease their perceptions of vulnerability to harmful work elements. This process may strengthen one's health identity, through strengthening the 'reserve of health'

(Herzlich, 1973), to help withstand a harmful environment. For example, a young production worker feels he needs to be getting more exercise outside of work to help offset risks of lung disease:

> ...I'm not breathing as healthy as I need to be [at work], and if I don't maintain my level of exercise, how can I hope to resist any other things I might be compromising my health with——whether it's working out here, or anything else I might be doing?

A middle-aged worker, who attributes many of his breathing, hearing and back problems to the work setting, additionally emphasizes the element of taking care of his own health. He feels he could off-set many of the work health problems by improving his health habits:

> ...most of [my work-related health problems] I think could be either drastically reduced——my hearing I don't think could be, but my lung problems and back problems probably would be less than they are——if I were more motivated, like to ride a bike.... I think all I would have to do is become more physically active. And if I did that, I think that most of my problems would——wouldn't disappear——but they would be a lot less than they are now.

This worker constructs a perception of control by identifying personal actions he could (should) take on his own to minimize the impact of work hazards. These constructions help to offset the distressing impact of health risks on health identity by adding a perception of choice and individual control.

Health Surveillance

The plant offers yearly physicals, and mandates yearly pulmonary function screening and hearing tests for workers in high risk areas. To some, this offers a degree of assurance that perceived risks are still just long-range possibilities, rather than actualities. As in a prior example (Chapter 6) of the worker who uses the yearly health screenings to validate that his health status is non-problematic, health surveillance can give false reassurances. Other workers, though, do question the

validity of such screenings, and even may question the integrity of the company medical staff performing the screenings, as in one worker who was extremely suspicious of the fact that his previous year's x-rays were inexplicably missing.

The fact that medical care is readily available may lead to workers blaming themselves if a problem develops and they have not been availing themselves of medical surveillance. For example, an older female worker blames herself for leg ulcers that occurred from standing long periods of time on the twelve-hour shifts, because she was 'stupid' and let it get too far before seeking medical consultation. Despite evidence that standing for long hours on concrete would be hazardous to anyone's circulation, the lack of proper medical supervision is assumed by this worker to be the major cause of her problem. Such attributions may also be reinforced by medical personnel.

Taking Extra Precautions at Work

In addition to general health vigilance, vigilance at work emerges as a major strategy. This strategy is mainly seen in relation to accident prevention. A strong moral judgment is made regarding those involved in accidents, with the grapevine actively generating hypotheses about how a particular individual may have been at fault for his/her own injury: "I just watch out for myself. I don't do stupid things."

The risks are accepted as part of some unavoidable conditions of life, but those conditions which may be accepted unquestioningly may still be dealt with by the individual's own sense of control and ability to act on his or her own behalf. A female worker places a great deal of emphasis on personal actions, while she implicitly accepts the inevitability of the hazards of the work situation.

> Well, there's a lot you can't control, but there's a lot you can do to help prevent things happening. I mean, there's going to be dirty water. There's going to be bad glass, there's going to be dust, and there's going to be [fiber] in the air. So you can't control those things because that's the environment you work in. But you can do things to prevent it from affecting you to a large degree.

Many optional safety measures are made available to the employees, such as masks and ear plugs. These are not mandatory in areas where dust, fume and noise levels are not over the allowable threshold, but many workers choose to wear them, either for personal preference, or because they are uncertain about the validity of the legally allowable threshold determinations.

Extra precautions taken based on personal preference are most evident in those workers who know they have an existing problem, such as a worker who always wears ear plugs because of a constant ringing in his ears and a known hearing loss. However, even without evidence of hearing loss, other workers just prefer to be safe:

> I don't worry about noise 'cause I wear ear plugs when I think it is necessary. I wear them a lot of times when I shouldn't have to, but because *I* want to wear them.

And:

> I *do* wear ear plugs and I wear them everyday....I don't have any hearing problems right now, but I wonder what my hearing would be if I hadn't been wearing those ear plugs? ...I think everybody should wear them.

Besides using all the safety devices provided by the company, a worker who is extremely concerned about the carcinogenic effects of some chemicals she works with, creates her own extra precautions against prolonged chemical exposure by:

> ...keeping myself clean, and not allowing my clothes to get too dirty.... I don't change clothes every break, but I wash up every break.... Any exposed part of my skin will get washed.

However, despite a seeming logic to taking all possible protective measures at work, there are diverse opinions among the workers about the use of extra protection, and many reasons given why workers do not choose to avail themselves of this strategy. In fact, these viewpoints are the dominant ones on many crews. The protective devices may be uncomfortable or irritating in themselves, or they may not be trusted to actually protect.

Workers frequently utilize multiple vigilance strategies together, as part of a conscious program of self-protection, as does a female production worker who feels relatively invulnerable to the many risks she perceives:

> I mean, if you're going to work in that kind of environment, there's going to be a certain amount of exposure. But, by taking your physicals, and making sure you take your x-rays, get all the kinds of tests, if something comes up, then you're aware of it. Only a stupid person doesn't——we had a person out here who could no longer work here, but the person was a heavy smoker. Unless your home environment is not taken care of first, if you're not clean at home, then how can you come out here and use the safety equipment, and work around chemicals, and not get sick? First you have to take care of your private self, and then when you come out here, they've provided equipment to take care of you, as much equipment as is known today. And, there are certain things that they need to make improvements on, but they're working on it. And so, what you need to do is say, 'well, I don't know if this is bad for me today, but it could be bad for me tomorrow, so I'll take care of it today.' Your own mental attitude. It all has to do with a person's mental attitude. And always being on the look out.

She emphasizes routine health surveillance, personal lifestyle, use of protective measures at work, and an overall mental attitude of watching out for oneself, as an integrated, ***self-styled*** program of dealing with health risks.

Adjusting to Risks

Other control strategies include internal adjustments that an individual makes to incorporate known work risks into the taken-for-granted realm of work life, such as compromise, resignation to the inherent risks, acceptance, or constructing risks as

part of a system of trade-offs. The degree of personal adjustment the individual is willing to make relates to the perceived balance of benefits, such as liking the job or valuing the pay, to the severity of consequences of perceived hazards, or to the perception of other options.

Acceptance of risks is quite common with those aspects of the job which are not really seen as threatening to the core health identity, but instead are perceived as merely nuisances, things which can be safely ignored and 'worked around.' Chronic pain——back and joints——is quite common, not considered life-threatening, and commonly tolerated. An 'in vivo' code is 'just living with it' as described by this worker:

> ...so the only way it's going to feel better [chronic shoulder pain] is if I go to the chiropractor and leave this job. But ***I'll just have to live with it.***

Sometimes the choice to live with a problem becomes removed from the worker, when that problem escalates beyond the individual's control. The worker quoted above was finally so disabled by the pain that she was unable to function and had to take a medical leave. Other workers have been forced to quit because of severe respiratory problems.

An important part of personal adjustment strategies is to block awareness of some of the everyday problems experienced. Most new workers are highly bothered by the itch and skin irritation that comes from working with the fiber. However, that problem is rarely mentioned at all by the seasoned workers. When mentioned, it is considered a very minor concern, not directly related to perceived health:

> I don't even notice the itch anymore. I notice it after I'm off work. It's kind of funny, but when I'm here, I have this shell on and I don't even notice the [fiber].

Making Tradeoffs

Making trade-offs is also a common strategy to make undesirable working conditions acceptable. Trade-offs are most likely to be constructed when conditions are seen as nuisances, and not threats to actual health identity. Most typical is tolerance of the 12-hour rotating schedules. The long days or nights on shift are compensated by long stretches of days off, or by the opportunity to work overtime for extremely good pay during the time off.

> I like the time off because it's time off.... And the time on, I suppose it's intense. You have trade-offs. ...you have to be resigned to having days that are totally geared and oriented to thinking about your [work] and then you have days where you don't have to think about work at all.

Another way of accepting the shiftwork and temperature extremes is to construe them as either/or propositions——accept the conditions or give up the job:

> If you want the job, you put up with the [temperature extremes]. Put on a few layers of extra clothes... If you want to work, you put up with the [schedule].

The most typical trade-off is for the perceived good pay, which makes the disadvantages of work easier to accept:

> It's boring..... It's hard on your feet and stuff like that. But it's not bad, I mean, for the money, you've got an easy job for the money.

For some, the trade-off is to accept ***more*** hazard for more money and less tedium. This trade-off is common on the 'hot end', where the pay scale is higher than on the 'cold end', but where known hazards are greater:

> I commute with a person that is real...sick a lot, and talks a lot about the process out here, and the unhealthy environment out here and stuff, but the person is still here, still works on the hot end. Should be on the cold end, because this person has asthma and all kinds of respiratory problems.... There's a lot of people in this plant that have health problems.... Asthma's real big on the hot end. They're still up there. They don't want to come down, they don't want to leave.... I think basically, the people that work on the hot end don't want to pack [the product], and they think they're making more money.

Constructing Choices

A step beyond incorporating the existing hazards and drawbacks of working into the taken-for-granted realm of work, is that of constructing choices. Workers accept some risks at work, but maintain a sense of control by exerting choice. Many describe areas in the plant where they refuse to work. It seems to be irrelevant which areas are really the most hazardous. It may be that no matter which area and which risks the workers face, individuals who work in those areas construct effective methods of accommodating those risks. However, they do not have effective methods of dealing with the risks they perceive in other areas.

Some work risks are seen as avoidable by personal action and choices. Some of the workers have the opportunity to avoid hazards by just 'walking away':

> If it gets dusty where I'm at, I can walk away. So I can go stand by the door where the wind's blowing, and I don't have to worry about it. But some people can't do that.

This option is highly dependent on the area the individual works and the constraints inherent in the job. For example, those who work on the assembly line are generally confined to a single area for a two-hour period, whereas other jobs have more mobility. The mobile workers perceive that they can walk away from some hazards. This type of choice is also highly interrelated with the worker's awareness——one has to be aware that a hazard exists to be able to make the choice to minimize it.

Surprisingly, some workers do seem to have the choice of where they work, even to the point of refusing certain assignments. It is likely there would be limits placed on this type of refusal by management. However, in instances where many workers are willing to take on more hazardous roles for better pay, prestige, or less monotony, the refusal of a few workers to go to a certain area is probably of little consequence. A 'cold end' worker describes his choice in avoiding hazards:

> ...I won't even go on special assignment or a cleaning assignment on the hot end, 'cause I've asked not to go up there. I don't want to go up there. I think that the hot end, to me it's a lot noisier, it's a lot hotter, it's more unsafe. It could be very dangerous. The pay difference is just too little.

The ultimate choice is the choice of continuing to work at the plant or not. The perception of how real this choice is, varies widely. Some workers feel trapped, and perceive no choice. Others dispute that viewpoint and express a strong feeling of choice:

> ...where you work...I think you can control that too. 'Cause everybody feels like they're trapped here, but they're not. They can leave.

Others may leave the job, but through no choice of their own, due to job-related medical disability, as in the case of the three workers who developed respiratory disease on the 'hot end'.

The ultimate option of leaving is perceived as very real for several. Some of the workers have specific plans to increase their degree of choice in leaving, by taking college courses with other career goals in mind. Even without other options in mind, some workers reserve the option of leaving for the point when they become convinced that the job is too hazardous——i.e., for the time when uncertainty reverts to a perceptions of definite hazard.

> ...if I was really to the point where it was really scaring me, you could just leave the plant. I'm not at that point. I'm really concerned about it and want to learn more about it. If I found out anymore, I probably wouldn't work here.

The degree of choice is also influenced by long-standing employment with the company and seniority, which make it much harder to give up those very aspects which have previously been constructed as acceptable trade-offs. The accrued benefits of employment then become constructed as linkages to the job which can't be broken. This is best exemplified by a worker with serious physical problems, who is very unhappy in his job:

> If I want to get into a straight days job, you might as well talk about some serious lifestyle changes, cause I'm going to be a broke person. I'd have to take such a severe cut in pay that I can't live. And that's disgusting.... You know, 13 years invested in this place, I get 3 weeks vacation a year, 2 personal holidays. I can't give that up because of what I've already got invested in it, and I can't get into a straight day job because I can't afford it, so you're stuck. You're in limbo.

Age also makes it harder to construct choices, given the bleak outlook for finding other employment. Unfortunately, age, as noted previously, also seems to increase the feeling of vulnerability to work hazards. The older worker does perceive being caught between a rock and a hard place: "It gives you a trapped feeling somewhat, because of my age. I'm thinking, 'well...if I leave, what do I do?'"

Interactive Strategies

On the continuum of dealing with work risks to health, the least prevalent are strategies which extend beyond the self, to affect the larger environment of work hazards. These strategies are highly interactive, involving extensive communication with others, either through one-on-one communication, or through the work group or organized committee action.

One-on-one strategies include assertive tactics, to place the responsibility for working conditions outside the self. For instance, a worker who has identified certain conditions as hazardous to health may call those to the attention of the supervisor or to the safety director. Assertion may extend to actually refusing to work in hazardous situations. It may take experience and maturity to be able to recognize when the risk is enough to warrant actual refusal. A mature worker tells of his response to a schedule which involved performing a nonessential task in the hottest part of the day, in a hot area: "We went in and told them, 'This is a health problem. We're not going to run this. Just flat no." The result in this instance presumably was the realization of the supervisor doing the scheduling that he needed to reconsider the necessity of doing hot work when it could be postponed to a cooler time of day. The consequences for these workers was that their activism paid off.

Presumably, for strategies like this to be effective, there must be a context for this type of insurrection to be acceptable to management. Part of that context may arise from the fact that there is a fairly egalitarian atmosphere in the plant, and also from the attitude of the safety director to listening to the complaints of employees. The philosophy described by the safety director can be seen reflected in this employee's assessment of management's responsiveness:

> If you have a problem now and you tell somebody, they'll at least come and look at it and talk to you about it.... I've seen things out there...that I felt were unsafe, and you go tell [the safety director] or somebody about it and he'd come right out and look at it. And before, they didn't care. I think there's still some lip service yet.

Another instance demonstrates the interaction of critical incidents, health education, and group support. During one hot summertime job assignment, workers in hot protective suits had several instances of heat exhaustion. Workers requested and received information from the HPP staff on recognizing signs of heat

stroke, which may have enhanced their capability of personal vigilance and also helped to foster an atmosphere of group support for workers to be able to act on their own perceptions of excessive heat.

Participative management and use of employee task forces provide a mechanism where concerned workers can be legitimately pro-active. A young, outspoken worker who has been active on several task forces, began crusading for environmental measures rather than individual protection to decrease dust exposure:

> When I first came to [the company] when they tried to give us that spiel about 'don't worry about the dust' and this and that, I was one of the first people I ever heard of that asked for a dust collection system...and they have it now. And now they say dust is bad.

Training Others/Crusading for Safety

Other interactive strategies involve actually changing the viewpoints of those one works with. A mature worker, in the high risk area of the plant, considers his major precaution at work to be the way he trains the people around him. ("Their capabilities can save my life. Or keep me from getting hurt.") He maintains a feeling of decreased vulnerability by interacting with his co-workers in a way that imparts his experience and judgment to them.

Other workers take on the responsibility of informing new workers and co-workers of some of the hazards and how to minimize them, by sharing their viewpoints on personal control strategies, such as the desirability of wearing optional protective equipment.

> I've gotten other workers to wear respirators and to wear ear plugs. I feel good about that, but I wish everybody would.

And:

> ...I think as new people come out, you know, you kind of spread the word. Somebody new——I've had the same conversation with new people over several times, when the respirator subject comes up. I basically say I don't trust necessarily what people tell me. And why should I breathe something, if it's going to kill me 20 years from now?

It is noteworthy that three of five workers who evidenced this strategy are members of the same crew, the crew with the best safety record in the plant. It appears that their efforts are part of a culture of safety for this crew. When this crew is on, nearly everyone on the 'cold end' wears masks, unlike other 'cold end' crews. The safety director notes that in meetings with this crew, they will usually ask more questions about issues than any of the other crews. Interactive strategies may be one of the more powerful strategies for influencing the health in the work setting by creating a strong work culture supportive of all strategies to decrease or protect against work risks. The crew noted above, which has many workers involved in interactive strategies, has this reputation:

> ...it seems like our crew has really worked together as a team more, and has been more involved with a lot of things, compared with some of the other crews. They'll either get things going, get activities going, get committees going——task force——and a lot of issues they'll bring up——more vocal, give a lot of ideas.

COMPARISONS WITH OTHER STUDIES

Few studies have explored the realm of worker perceptions of health. One notable exception is the work of Nelkin and Brown (1984) who reported findings similar to these data in their interviews with 75 workers in many different work settings. They noted a similar diversity in worker responses:

> ...some saw risks as 'dangers,' others as 'part and parcel of the job'; some expressed anxiety, others the satisfactions that made the risks worthwhile; and some resigned themselves to working in hazardous conditions while others sought to change their working environment (Nelkin and Brown, 1984, p. 178).

Within these diverse responses, they identified similar strategies for coping, including self-protection, adaptation and activism. The problematic nature of information about risks also was evident in their workers' perceptions.

Despite the diversity of the workers' work settings and their perceptions and responses to work hazards, Nelkin and Brown noted a common theme of "social isolation" in their workers. Their workers felt unable to talk to anyone about their concerns, and expressed fear of jeopardizing their jobs. The researchers found that "many people dismissed their problems as personal, failing to recognize that their co-workers were troubled as well." (Nelkin and Brown, 1984, p. 179.).

Such isolation was not apparent in this single work setting. Close-knit work groups with an active grapevine, participative management, and fairly collegial relationships with first-line supervisors who have generally worked their way up through the ranks, may help to mitigate this sense of isolation. Work health problems were a frequent topic of conversation, and social comparisons were, in fact, a frequent strategy used by workers to perceive the 'normality' of what they were experiencing.

Perceptions of risk were modified by work satisfaction in Nelkin and Brown's sample. Similar findings can be seen in the sample of these factory workers. Those who expressed strong job satisfaction used more active strategies to deny or minimize the risks. Those with less job satisfaction seemed to feel more powerless and 'stuck,' or were actively seeking a way out of their dilemma by preparing for other careers.

Issues of choice were very important for Nelkin and Brown's workers. Those who perceived the most choice were the most active in trying to change work conditions. This linkage was supported to a degree in the current study. Two young college students who knew they would not always be working at the plant were quite proactive in encouraging safety precautions for their crew. However, an

older worker, who acknowledged his lack of other job options was equally assertive in making certain demands for safety. Another young worker who planned for a long career at the plant because of his lack of training for other jobs, was one of the most outspoken in his attempts to have safety measures improved.

Common to Nelkin and Brown's workers was a sense of powerlessness, a lack of confidence in management, and a belief that profits were of more consequence than the workers' health. Such themes were evident in this sample as well, but not dominant. Certainly a sense of 'uncertainty' about management was evident, but not in the sense of widespread doubt about the company's integrity toward worker safety. A lack of focus on the profit motive by these workers may result from the profit-sharing plan, which has been highly regarded by the workers. It is noteworthy that many workers in this plant will assume greater risk for higher pay. That trade-off may extend to the profit-sharing plan as well, that is, workers may perceive that the expense in upgrading the working environment would decrease the profit-sharing rewards. No workers overtly expressed this idea in relation specifically to work hazards, though it was an active topic of conversation when the plant was considering building a fitness room. The major detractors were those who felt such a facility would cut into profit-sharing. The money which management spends for the health promotion program was subject to similar criticism by some workers.

SUMMARY AND IMPLICATIONS

Worker's perceptions of, and responses to potential health risks in the work setting are highly variable. This is extremely noteworthy, given the circumscribed nature of this study, focused on ***one*** work setting. A priori views of such a setting might lead to the assumption that the risks would be fairly clear-cut and part of a general consensus. The data from these interviews reveal that is not the case.

Perceptions of risks vary markedly, based in different modalities of awareness, varying constructions of the risks, and highly variable individual strategies for responding to risks. Individual constructions of risks appear to be very influential in a worker's willingness to accept the risks inherent in the work setting and to remain in that setting. In addition to marked individual variations, evidence of influence through many small sub-cultures was evident——different work crews, work areas, all with different levels of concerns, strategies and norms.

Health identity may be a significant variable in considering the responses of workers to health risks. Those who perceive a positive health identity, and who are active in maintaining it, may be more likely to be proactive in their responses to work risks. Those who have a positive health identity which has evolved naturally throughout their biography, with little active effort, may be less proactive in dealing with the hazards at work, and may tend to take them for granted. Work risks which lead to a change in health identity and which can't be countered by the normalizing strategies discussed in this chapter may lead to a severe incongruence between health identity and the workplace, necessitating specific action.

Correspondence may be found between workers' responses to work risks, and to other health risks in the general environment. Patterns of response in one setting may transfer to other settings as well. The workers who are more pro-active in the domain of work risks, actively protecting themselves and openly concerned about the long-term consequences also discuss more concerns about their personal lifestyles and health habits. The two domains——work and health——become an integrated aspect of identity, with one drawing on the other in the construction of every-day habits and concerns. An area for further investigation would be the extent of that interplay——that is, as a worker becomes more aware and concerned about work risks and health, that concern may be likely to carry over into the general domain of health, and vice versa. Several of the worker vignettes discussed

in this section indicate that may be the case. Such an interrelationship would have important implications for the field of health promotion, and decisions on where to direct health promotion efforts.

Chapter 9
SUMMARY AND THEORETICAL IMPLICATIONS

SUMMARY OF FINDINGS

Twenty blue collar workers in one factory setting were interviewed to determine their conceptions of health, perceptions of influences on health, and the impact of the work setting on health. Theoretical sampling was used as part of a grounded theory approach, to select the interviewees. The availability of supplemental background quantitative data provided information about how the sample compared to the blue collar population in this setting as well as others. In addition, quantitative health data were used to provide a context of physical measures to aid in the interpretation of qualitative responses. The interview sample was comparable to the blue collar population at the factory, and similar to other working groups on several objective measures.

The following research questions guided data analysis:

1) Within the context of a specific work setting, how do workers perceive their own health?

2) What do workers perceive as predominant determinants of, or influences on health?

3) Are the workers' health perceptions influenced by the structure of work and the cultural matrix of the work setting? If so, in what ways?

Despite evidence of some common health problems, this group of workers claimed a 'good' level of health. Such affirmations of health were firmly rooted in the ***experience*** of the individual. Individual health experience was assimilated into a self-appraisal which exhibited characteristics of a 'health identity.' Health identity was determined to be a unique construct for each

individual, evolving from biographical experience, social comparisons, subjective feelings arising from the experience of the body, and objective signs or measures. The resultant health identity represents a vital linkage of the self, the body, and the social world.

Besides personal perceptions of health, individuals also simultaneously held broad conceptions of health, which may or may not be incorporated into identity. These broad conceptions encompass all those aspects of health which might be theoretic or hypothetical, but which the individual does not necessarily 'own' as part of the current health status. These conceptions form a 'sphere of health' surrounding the individual's health identity. The sphere of health includes those components which may potentially interact with health identity. Such components include a stock of knowledge about health in general, the environment, experiences of the self and knowledge of experiences of others. This sphere is noteworthy for a function of stockpiling knowledge or life experiences which may, over time, be incorporated into one's identity, but are not yet seen as essential components of health identity. As the self interacts with elements in the sphere of health, a selection process occurs, allowing some elements to be incorporated into the health identity, whereas other elements are ignored or considered temporarily irrelevant.

A notable feature of health identity is a tendency toward stability despite many potential influences. However, several factors were elicited which had an effect on health identity in some workers. Acquired knowledge from the sphere of health may, over time, become increasingly salient and re-evaluated in terms of health identity. Salience may be affected by critical incidents, temporal changes associated with age, or family influences. Health identity might also be influenced through individual choices to transform health or through the influences of social norms.

In the face of many potentially detrimental influences on health, health identity was often actively maintained by several strategies which helped to ensure stability. These strategies were most clearly evident when focusing on a selected, common context for the experience of potential threats to health——the workplace. The twenty workers all shared common, known exposures to health hazards. Some workers experienced threatened health identities; others maintained stable health identities which did not incorporate work risks as a major feature of individual health. For the most part, by employing strategies (including cognitive, personal control and interactive) to maintain health identity, individuals were able to maintain perceptions of being in 'good' health, despite many chronic health conditions and potential health risks.

THEORETICAL IMPLICATIONS

LAY CONCEPTIONS OF HEALTH: THE TRIUMPH OF COMMONSENSE ANALYSIS

The rich data provided by the discussions with the workers in this sample formed the foundation for an elaboration of a 'grounded' theory of health. The data reveal that conceptions of personal health are much more complex and multi-faceted than even the wide-ranging literature suggests. The individual definitions of health encompassed all aspects which theorists have elaborated, going well beyond biomedical conceptions of health. Clearly, the notions of these blue collar workers indicate that health is not strictly a biomedical domain, but highly interactive with a broader social domain, as well as being grounded in personal experience. These findings corroborate the conclusions of others regarding the complexity of lay health conceptions (Calnan, 1987; Cornwell, 1984; Crawford, 1984).

Individual health conceptions are incorporated into unique, highly individualized frameworks derived from each person's 'lived experience,' manifest as a 'health identity.' Actions related to health are direct expressions of an individual's health identity. Moreover, once a stable health identity is formed, it serves as a core of understanding or filter on matters of health, determining conditions for selection, incorporation, or rejection of health-related concepts.

Individual theories of health generally serve to validate the self as 'healthy' whenever possible, establishing a commonsense notion of ***sufficiency*** of health which is grounded in experience, and in the demands and exigencies of the everyday world. The individual applies commonsense notions to choose and to manage, from an array of options, those options which provide a sufficient health to fulfill his or her obligations and enjoyment of life. The individual with a stable health identity maintains a great deal of confidence in the ability to analyze options and make choices pertaining to everyday health. Such confidence is grounded in experience, i.e. of being healthy, of adapting, of functioning, and of being able to assess and respond appropriately to threats to health. Decisions about health-related matters are not simple cause-effect solutions, or immediate responses to new information. Rather, such decisions are processed through the framework of the individual's commonsense paradigm.

Given the existence of rather complex personal theories of health, and the grounding of those theories in the experience of the individual, any grand, professional or meta-physical theory of health which is derived and superimposed externally to individuals and which attempts to predict or to manage health behavior without consideration of each individual's complex calculus of commonsense, is probably doomed to superficiality. Similarly, efforts of health professionals to change health-related behaviors based on suppositions about health perceptions without regard to the individual's health identity and commonsense theory about

personal health may be largely ineffective. The existence of elaborate and unique individual theoretical frameworks for health may help to explain the barriers encountered by health professionals in achieving desired change in health beliefs and health behaviors.

HEALTH IDENTITY: SOCIOLOGICAL LINKAGES

A major facet of identity formation occurs in interaction with the social world, through interaction with family, peers, informal and formal social structures. Social norms are transmitted through these interactions, including norms for health and health behavior. The dimensions of health identity may provide insight into the general sociological concept of identity including factors involved in its formation and maintenance.

Identity theorists have noted the development of identity as derived from appraisals of self and appraisals of others. Data from this study present concrete examples of facets of such identity formation, that is, self-appraisals include interaction with the body, biographical experiences, attention to objective signs and social comparisons. Appraisals of others may well be incorporated in these categories, as part of ongoing experiences. Health identity is maintained through several strategies which were elicited in exploring what workers do to maintain health, and how they manage exposure to risks in the workplace. However, for many workers, maintenance of a basically positive identity does not always engender actions related to identity maintenance, underscoring the general tendency toward continuity of identity described by Strauss (1962), which does not require extensive maintenance efforts. However, the addition of the element of risks to health in the workplace elicited several implicit strategies for accommodating risks to maintain stable health identities. Strategies for maintaining continuity of identity merit further study and elaboration in regard to identities other than health identity.

Another important area of concern are those situations where identity becomes problematic, despite maintenance strategies.

Transformations of Identity

Identities became problematic for workers when there was conflict between several domains or components of the health identity, with the temporality of aging, or when other identities made certain aspects of health more salient. The health identity is interactive with the multiple other identities of the individual, such as worker, parent, etc. Management of these multiple identities results in a calculus of commonsense, which governs the individual's actions. Within that calculus, health is important, but balanced with all the other constraints of the worker's life. An identity which becomes problematic for the individual can provide the stimulus for accepting new modes of thought and action, as part of a process of reconstituting or transforming identity. However, such restructuring always occurs within the context of the other identities and within the constraints of everyday life. Thus, transformations are not likely to be radical or sudden, but part of a consideration of the total context of the individual's commonsense theory which determines relative relevance and salience.

Health Identity and The Experience of Risks

Sociological theories of risk and behaviors oriented to risks are scant and extremely problematic (Heimer, 1988). Heimer noted that a sociology of risk must be able to accommodate the fact that individuals may unpredictably seek risks when theory predicts they would not, that the difficulty in comparing risks poses difficulties for theories of individual choice, that many risks are mediated by social structures, and that individuals often **alter** risk situations, rather than just making choices. The responses of workers in this study to potential health risks serves to

underscore the complexity of this realm of sociological endeavor, but the perspective of a commonsense theory of health may increase sociological understanding.

Work risks in this study are considered by the individual through a commonsense calculus which evaluates risk in terms of the broad context of individual experiences. The worker is concerned about health and threats to health, but those concerns are filtered through a generally stable, and 'positive' health identity, along with strategies designed to buffer or to maintain that health identity despite external threats. In addition, the calculus allows comparison of risks in relation to other risks in the natural world, and to other responsibilities and opportunities of the individual. Thus, despite some perception of work risks, the worker will balance those against risks in the greater environment, the need to earn a living, the other opportunities available to the worker, etc.

An important consideration in assessing work risks is the heavy stake which this particular set of workers have in their employment. They feel well-rewarded monetarily, have some degree of assurance (though not complete) in the health and safety features of the job, and calculate their risks in this plant, compared to other possibilities, as within reason. Most importantly, they have a strong sense of their own control and vigilance, superimposed on generally positive health identities. The end result of such a commonsense analysis usually is that the risks are deemed acceptable, modified to some extent by the individual's strong sense of priority setting, control and choice. Thus the individual is generally able to maintain a strong health identity, and at the same time, to accommodate multiple risks in the everyday world. However, if health identity becomes threatened, for example by critical incidents, the inability to normalize experiences by comparison with other workers, or if the worker norm becomes one of general alarm, risks may no longer be so easily accommodated.

The responses of these workers to risk present an interesting contrast to those posed by Barsky (1988), a physician commenting on the current cultural fixation on achieving 'wellness' and avoiding risk. He noted:

> Our growing dis-ease about health, our sense of environmental menace, our anxiety about the durability of the human body, and our experience of aging go hand in hand with a growing intolerance of all physical hazards and dangers. Almost any risk of harm seems unbearable.... We are in a perpetual state of alarm about the daily health risks we run, the dangers inherent in everything we do.... (Barsky, 1988, p. 171).

Although ***concern*** about risk is evident in this sample, as well as some degree of threat and anxiety, the workers seem quite effective at accommodating health hazards and risks, without reaching the state of alarm described by Barsky. Barsky's position seemingly ignores the many creative strategies individuals can use to adapt to threats to their health and identity. It is likely that such creativity would be manifest in other realms of risk as well, and in relation to other identities of the self besides health identity.

Norms and Health Identity

Twaddle (1979) recognized health as a social identity built with respect to norms for biological and psychological functioning. Such norms were markedly evident in this study. Normalizing strategies employed by these workers provided an important understanding of the processes by which individuals can maintain an identity of 'good' health despite health problems which impede the realization of 'perfect' health. These workers exhibited a remarkable degree of skill in learning to live with a great number of potential health tribulations, while remaining satisfied with their overall health state. The powerful effect of social comparisons in maintaining such satisfaction was apparent.

Norms are very important to individual identity. However, the dominant norms, in terms of ***health*** identity appear to be ***self***-norms, developed through one's

history of experience within one's own body, including its senses, events, biography, objective signs and symptoms. Social norms do become integrated into this identity, but in a rather selective fashion. Once a health identity is firmly established, social norms, for example in a work setting, are important for assessing work-related risks, for assessing work-related symptoms, and for making age-related comparisons. A special type of social norm relevant to health identity is that derived from health professionals, i.e., norms focused on biomedical conceptions of normality. Biomedical norms are important in the sense that they do contribute to one's biography of health, but in no way do they dominate health identity. They may contribute to the stock of knowledge about health but they are carefully assessed for personal relevance before incorporation into identity.

Awareness of and responses to risks in the work setting were often informed by others in the work place. An important function was that of providing a 'norming' standard, which allowed several problematic physical conditions to be appraised as 'normal' and thus of less concern to individual health. Thus, strong social norms can contribute to a stable identity in the face of threats. Likewise, norms for responses to health threats, such as a social norm for taking extensive safety precautions, can also help to maintain health identity.

Health Identity and Mead's Generalized Other

The health identity manifests an intriguing combination of self-expression and creativity as well as an internalization of social norms and information from social interaction. The concept of health identity provides a pragmatic example of Mead's notions of the self and the 'generalized other.'

Mead (1977) described the concept of 'self' as constituted first of attitudes of the individual toward himself [or herself] and others, and secondly by the organization of social attitudes of the social group to which the individual belongs.

It is through this internalization of the external attitudes of society that control is exerted over the conduct of the individual. However, this is an interactive process, not a one-way directive. The 'self' of the individual was seen by Mead as a social process occurring between the ***'me'*** (the internalized attitudes of the 'generalized other'), and the ***'I,'*** (the attitudes of the individual). Even though the individual might internalize attitudes of the larger social body, the attitudes of the individual (the 'I') can still be expressed, raising the individual above social institutions. Thus, in Mead's schema, even though social influences are integral to the development of the self, they are not necessarily overwhelmingly determining of the self.

Such an interplay between social influences and the individual's unique expression is evident in the theme of health identity. Health identity is one result of a set of social influences, in interaction with other attributes of the individual, resulting in a particular definition of the self. Thus, self-expression and social interaction merge, through a continuous interplay, to form the health identity.

Data from this study support Mead's concept of an internalized 'generalized other.' However, characterization of what that 'generalized other' represents for each individual is revealed to be somewhat problematic in this study. There is no evidence of a uniform consistent 'generalized other' for the workers in this setting. Individual conceptions of health in the work setting represent a blend of diverse reference groups. In a rather homogeneous worksetting, with circumscribed working conditions, the differential incorporation of elements from the social sphere demonstrates the degree of choice the individual has in fixing his or her own reference points for the 'generalized other.' The worker is exposed to many constituencies, some accepted, some rejected, as the process of internalizing social attitudes proceeds. In this study, workplace norms and health norms vary by work area, by crew, by age, by chosen peer group, etc. ***Commonalities*** exist with regard to attitudes and reactions to work risks, but each individual responds to a unique

configuration of multiple social inputs. Mead's 'generalized other' in this setting appears to be ***multiple*** generalized others, with reference groups uniquely constructed by each individual. Consequently, many diverse outcomes are possible, despite presumed exposure to rather similar social influences.

SOCIAL NORMS AND SOCIAL CONTROL

In addition to social norms and the concept of the generalized other as part of identity formation, sociological literature has been concerned with aspects of social control and how it is achieved to maintain the social order. It is interesting that Mead, in elaborating the interplay between society's requirements for social order, versus individualistic self expression, selected as his example the relationship between ***health*** and ***routine work***:

> In a person who carries out the routine job, [the need for self expression] leads to the reaction against the machine and to the demand that that type of routine work fall into its place in the whole social process. There is, of course, a certain amount of real mental and physical health, a very essential part of one's life, that is involved in doing routine work.... A person who cannot do a certain amount of stereotyped work is not a healthy individual. Both the health of the individual and the stability of society call for a very considerable amount of such work.... Nevertheless...there must be some way in which the individual can express himself. It is the situations in which it is possible to get this sort of expression that seem to be particularly precious, namely, those situations in which the individual is able to do something on his own, where he can take over responsibility and carry out things in his own way, with an opportunity to think his own thoughts. (Mead, 1977, p. 240-241)

This blue collar sample vividly depicts that interplay between the social control exerted in the work setting (in the form of demands and constraints on the individual, as well as the implicit definition of the functional worker), as played out against the personal experience of the individual self. The interplay of these two elements is integral to the development of health identity in the workplace.

The worker does what he or she must to perform the functions demanded at work, but there is room for freedom, even in the work setting to perceive that choices are possible about the degree of exposure and one's responses to that exposure. Workers may even feel free to resist elements of social control in the work setting, by defying or ignoring regulations. In the worker's free time, there may also be a certain element of resistance to social control, revealing greater individual self-expression than may be possible in the confines of the worker identity. That unique expression sometimes takes the form of release (using Crawford's, 1984, terms), such as the refusal to maintain a discipline such as exercise or diet to achieve greater health. At other times, the individual expression is of another type of self-control, directed at self-growth and fulfillment well beyond the functional requirements of work. Such expression may become the 'experiential' health (e.g. that which is related to individual growth and self-fulfillment) described by Kelman (1975), counterposed against the 'functional' health (the capacity for productive work) required for industry. This juxtaposition of different types of health and multiple identities allows society to exert some degree of control, yet at the same time, allows the individual to experience a degree of self-expression.

Parsons (1964) elaborated the importance to society of social roles and social control, as they relate to health. In his framework, social norms played a very important role in achieving social control. These data reveal the importance of social norms in shaping conceptions of health and health behavior. However, such norms are only a portion of the individual's health conceptions; moreover, the individual is highly selective in the norms which are incorporated into identity. The individual is likely to reject social norms which are not congruent with the individual's personal notions of health. Even the physician, the preeminent force in Parson's schema of social control of health is frequently disregarded by these

workers in favor of their own health determinations. This study establishes the existence of limits on Parsonian concepts of social control as it is applied through social norms.

The Triumph of Commonsense

Despite the power of social interaction in shaping ideas, perceptions, and actions related to health and potential risks in the workplace, these data indicate that the workers are not passive receptacles for these ongoing social processes. The interaction between self and society is active, continuous, and multidirectional. Workers emphasize their perceptions of choice and their perceived sense of individual control. Many examples revealed the extent to which workers 'resist' and 'fragment' attempts at social control, similar to Crawford's (1984) description. Such resistance is not exerted exclusively in the work setting, but also against social control in a broader realm. Those elements from the sphere of health which the individual responds to seem to be actively selected for incorporation into health identity, rather than being routinely absorbed as directives from the social order.

IMPLICATIONS FOR HEALTH PROMOTION EFFORTS

Health identity is a unique and rather stable construct for each individual, resulting from appraisals of self and appraisals of others. Workers have a large stock of knowledge about health yet don't necessarily incorporate it into their health identity. Such knowledge is stockpiled and can be integrated into health identity when relevant and salient. Salience factors are highly individualized and difficult to standardize for even a relatively homogeneous population. Efforts to facilitate change in health behaviors may be dependent on the ability to identify salience factors and how those relate to the individual's current and preferred health identities. As salience may change with time and life circumstances, stored

knowledge may suddenly become an important of health identity. This fact contributes to the difficulty of evaluating health promotion efforts, which can have long range impacts not immediately apparent. Health promotion efforts may create a lingering sense of discomfort as well as an avenue for future action which is not immediately apparent in terms of behavior change. Professional efforts to change health behavior may be strengthened by examining the components of an individual's health identity rather than exclusively attempting to change health knowledge and health behavior.

The study of these workers' views within the context of their work setting contributes an important methodological element to health promotion studies. Clearly, the work context was a significant, though not necessarily dominant, component of strategies for maintaining health identity. The findings regarding health conceptions differ somewhat from other studies, conducted in different contextual settings (for example, white collar work settings, or different cultural milieu where social class plays an important role). The rather egalitarian work structure, the close relationship between first-line managers and the blue collar workers, the tendency for workers to feel free to be outspoken and proactive about their health concerns, all may relate to the context of this work setting. Thus, these findings may not be widely generalizable. However, the findings ***do*** underscore the importance of examining the total work context, when studying the responses of workers to health promotion efforts.

Walsh (1988) raised concerns about the implications of social control raised by employee health promotion programs. She described the dangers inherent in promoting a biomedical model which blames victims and ignores the social reproduction of disease. The data from this study lead to other conclusions——that workers are not passive conduits for promotion of a biomedical model, nor are they unaware of the social production of disease. However, they are willing to coexist

with such social production of disease, by using strategies which they perceive as helping to maintain health. Often, these take the form of personal actions which are perceived to mitigate against the effects of harmful environments. Health promotion programs may contribute to awareness of benefits of such personal actions and may foster a social value for such actions. At the same time, as issues of health become more salient for some workers as a result of health promotion efforts or through social interaction, they may have increased awareness of aspects of health against which their personal actions cannot mitigate, stimulating concern beyond just individual action.

RESEARCH IMPLICATIONS

Health is seen by lay persons as complex and multifaceted. The methodology in this study allowed these conceptions to emerge through discussion from the worker's own sense of salience and priority. Responses were thus quite unique, grounded in the experience of the individual. However, a background of quantitative data with which to interpret and explore further the context of those qualitative responses suggests a fruitful approach for further study. The use of secondary data in this study, and limitations in having full sets of data on all those who were interviewed was a problem in this study. However, such a combination of both qualitative and quantitative methods might be feasible in other studies. It is informative to know of biomedically defined conditions such as high cholesterol or high blood pressure, and to see the extent to which these are perceived and incorporated into health conceptions of the individual, versus being ignored, discounted or denied. Especially with the presumption of dominance of the biomedical model, it is critical to have measures derived from this model for comparisons with what individuals actually perceive and incorporate into personal health theories.

A closer examination is needed of how individuals perceive, interpret relevance and actually incorporate social norms. Findings related to health identity indicate that social norms definitely inform identity, but that the individual has a great deal of selectivity regarding which sets of norms to incorporate. Findings indicate that the 'generalized other' is uniquely constructed by each individual in terms of health identity. The question arises as to what extent the generalized other is uniquely constructed in relation to other identities?

The interviews were intensive and time consuming. Although designed with an interview guide to probe for issues presumed most relevant to the health of the workers, several workers added elements at the end of the interviews which they had neglected to mention earlier. Some made additions to the interview days later, after thinking about the questions. Thus, one could not assume that the workers' discussions were totally comprehensive and all inclusive of their conceptions of health. In this interview structure, there was no opportunity for one worker to compare responses with those of other workers. Such comparisons would be useful in further studies, and would allow workers to also consider responses which did not occur to them at the time of the interview yet which might have identifiable importance to them. Use of a quantitative tool in conjunction with in-depth interviews could help to prompt individuals to consider and rate common items related to health. In that way, one might be able to make more comparisons between individuals, and to gauge how pervasive norms for specific health conceptions are in this setting.

Qualitative approaches revealed the pitfalls in reliance on quantitative data without considering the contexts for those data and how those data are actually perceived by the individual. For example the presumption is that increased cholesterol levels might be a cause for concern and for action, but the qualitative data reveal that is not necessarily the case. Thus, the response to objective health

findings can be more extensively assessed using qualitative methods. For example, illness days are a frequently used measure in assessing health of employees. Interview data revealed the extent to which such a measure can be radically affected by the circumstances of the work setting, cultural norms, and the personal motivations and values of the individual. Research which combines both types of research approaches is indicated.

Gender linkages were not a central feature of this research, given the limited number of female workers in the plant. However, the interviews with the female workers revealed that a high proportion of those workers (three out of five) were actively engaged in reconstitution of health identity through changes in health habits, coping mechanisms, etc. Such reconstitutions of identity were not as prevalent in the interviews with male workers, with only two (out of fifteen) actually purposefully working on changing aspects of health. Such intriguing gender-linked differences would be a rich source for further study. Walsh (1988) has noted similar disparities in other studies, indicating that health is not the same for men and for women, and the results of workplace health promotion efforts may well be linked with gender.

Equally interesting is the ability of these workers to concurrently maintain several notions of health, even though these may often be incompatible with or contradicted by their own experience. Such inconsistencies illuminate the potential incongruence between what individuals ***think*** or ***believe*** about health, and what they actually ***do*** about it or ***experience***. Implications for research and practice suggest that inquiry must go well beyond an individual's knowledge and beliefs, to elicit the 'lived experience' of the individual.

CONCLUSIONS

Findings from this study revealed the rich nature of lay conceptions of health, influenced by much more than biomedical conceptions. Such richness emerged through the avenues of qualitative approaches which allowed the individual's thoughts and actions to be analyzed within the work context. The fact that conceptions of health (as opposed to illness) are vivid and can be articulated by lay people underscores the importance of further sociological concentration on health, as much more than a residual category of illness.

These findings also reaffirm the ***social*** nature of health, with social interaction providing a firm basis for the development and maintenance of health identity and commonsense notions of health. At the same time, the creativity of the individual, in expressing the self through the medium of health, is paramount. The individual with a stable health identity——a strong manifestation of the self——filters social interaction for personal relevance, arriving at a unique individual construction of personal health. Attempts to understand individual health and health behavior must consider both the social environment as well as the unique construction of the individual's commonsense theory.

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APPENDIX A

CONSENT FORM

A STUDY OF HEALTH IN THE WORKPLACE
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
CONSENT TO BE A RESEARCH SUBJECT

A. Sherry Fox is studying health attitudes and beliefs in the workplace, and things which affect health, as part of a doctoral dissertation.

B. PROCEDURES

If I agree to be in the study, the following will occur:

1. I will be interviewed privately by Sherry Fox, on my attitudes about my general health, and things which I believe affect it.

2. If I agree, the interview will be tape-recorded.

3. The interview will take place at the plant, in a private room, and will take about one hour.

4. Data from the interview may be used along with data from the plant physical, and questionnaires previously answered for the Employee Wellness program.

C. RISKS/DISCOMFORTS

1. The interview is on general health and safety issues and not planned to be intrusive or embarrassing. If any questions make me uncomfortable, I am free to decline to answer, or to stop the interview at any time.

2. Confidentiality: Study records will be kept confidential as is possible. No individual identities will be used in any reports or publications resulting from the study. Study information will be coded, and kept in locked files at all times. Only study personnel will have access to the files and the audiotapes. No personnel from the plant will have access to the data. After the study has been completed and all data have been transcribed from the tapes, the tapes will be destroyed.

D. BENEFITS

There will be no direct benefit to me from participating in this study. The anticipated benefit is a better

understanding of how workers see their health, what influences it, and possibly ways employee health can be improved.

E. ALTERNATIVES

I am free to choose not to participate in this study.

F. COSTS

There will be no costs to me as a result of taking part in this study.

G. REIMBURSEMENT

There will be no reimbursement for my participation in this study.

H. QUESTIONS

I have talked with Sherry Fox, RN, about this study and have had my questions answered. If I have any further questions aboutthis study, I may call her at 895-6309.

If I have any questions or comments about participation in this study, I should first talk with Sherry Fox. If for some reasonI do not wish to do this, I may contact the Committee on Human Research, which is concerned with protection of volunteers in research projects. I may reach the Committee office between 8:00AM and 5:00 P.M., Monday to Friday, by calling (415) 476-1814, or by writing to the Committee on Human Research, Suite 11, Laurel Heights Campus, Box 0616, University of California, San Francisco, CA 94143.

I. CONSENT

I have been given a copy of this consent form to keep.

PARTICIPATION IN RESEARCH IS VOLUNTARY. I am free to decline to be in this study, or to withdraw from it at any point. My decision as to whether or not to participate in this study will have no influence on my present or future status as an employee at [plant].

Date_____ Signature_____

Person Obtaining Consent_____

APPENDIX B

INTERVIEW GUIDE A

CODE_____

Demographic data

AGE____ SEX ____ RACE_____ CREW _____

MARITAL STATUS_____

JOB CATEGORY_____

EDUCATION _____

1. Please tell me a little about what your life is like now....(Probes: what are your major interests and activities; what things are most important to you in this stage of your life; how you generally feel about your life right now).

2. How much do you think about your health these days? (Is it in the forefront, or in the background?)

3. How important is your health to you? (How much do you depend on good health to do what you want/need to do?)

4. What determines whether or not a person is healthy?

5. How would you describe your health?

6. Have you been more healthy than you are now? In what way? What do you think has changed?

7. Picture the best state of health possible for you. What would it be like? (How would you feel, what would you be able to do...?)

8. In what way is that different from your current state of health?

9. What things do you think have determined your health as it is now, and what things might affect it, for better or for worse?

10. Do you think about the effects of the environment, or society in general on your health? (Such things as chemical additives, pollution, drinking water, general stress from modern life, news items about current disease problems....)

11. Do you think about the effects of your family on your health? (The way you were raised, family relationships, heredity....)

12. Do you have any health problems that worry you?

13. When was your last doctor's visit? What kind of problem was the visit for?

14. What would have to happen for you to reach your ideal state of health?

15. Do you do any things now, especially to improve or maintain your health? What?

16. Have you made any changes in the last year or so, specifically to improve your health? What? Are there things you feel you could or should be doing to improve your health?

Now I'd like to talk about your work.

17. Briefly describe your work. What do you do on a typical day? How do you feel about your work?

18. Do you see work affecting your health, or potentially affecting it?

    Working conditions?
    type of job?
    physical demands?
    noise?
    fiber?
    temperature?
    work schedule?
    relations with co-workers?
    relations with supervisors?

19. Do you take any precautions at work to protect your health?
    Do others take the same precautions?

20. Does the plant management have safeguards to protect the health of you and your co-workers? Are these generally effective?

21. Have you missed work during the past year because of your health?

22. Has your state of health affected your work? (positive or negative effects)

23. Have you had any major medical claims or medical disability in the past year?

24. Is your health better or worse than others at the plant?

25. What are the main health problems that you see in your co- workers?

26. Do you think your views about health are pretty much like the views of the people you work with? If different, in what way? Why might they be different/or the same?

27. What would be the major changes in your life or work situation right now which could improve your health?

28. Which of those things do you feel you can control? Which are beyond your control?

29. Does having an employee health promotion program influence your health in any way?

INTERVIEW GUIDE B

CODE_____

DATE_____

Demographic data

AGE____ SEX ____ RACE_____ CREW _____

MARITAL STATUS_____

CHILDREN_____ EDUCATION_____

JOB CATEGORY_____

YEARS AT PLANT_____

1. Please tell me a little about what your life is like now....

(Probes: what are your major interests and activities; what things are most important to you in this stage of your life; how you generally feel about your life right now).

2. What is good health? (How would you define or describe it?)

3. How much do you think about your health these days? (Is it in the forefront, or in the background or somewhere in between?)

4. How important is your health to you? (What would your life be like if your health were different?)

5. What makes a person healthy?

6. How would you describe your health?

7. What do you base that on? What criteria do you use to measure health?

8. How does your health now compare to your health in the past.

9. What if anything, do you think has changed?

10. Picture the best state of health possible for you. What would it be like? (How would you feel, what would you be able to do...?)

11. What would have to happen for you to reach your ideal state of health? Is that possible or feasible for you?

12. What would get in the way of your doing it?

13. What things do you think have determined your health as it is now, and what things might affect it, for better or for worse?

14. Do you think about the effects of the environment, or society in general on your health? (Such things as chemical additives, pollution, drinking water, general stress from modern life, news items about current disease problems....)

15. Do you think about the effects of your family on your health? (The way you were raised, family relationships, heredity....)

16. Do you have any health problems that worry you?

17. Do you do any things now, especially to improve or maintain your health? What? What made you start?

18. Have you made any changes in the last year or so, specifically to improve your health? What? Are there things you feel you could or should be doing to improve your health?

19. Have you had the HRA (plant physical) in the past 2 years? Did it indicate any areas you need to change?

Now I'd like to talk about your work.

20. Briefly describe your work. What do you do on a typical day?

21. How do you feel about your work?

22. Do you see work affecting your health, or potentially affecting it?

    Working conditions?
    type of job?
    physical demands?
    noise?
    work with chemicals?
    fiber?
    temperature?
    work schedule?
    relations with co-workers?
    relations with supervisors?

23. Do you take any precautions at work to protect your health?
    Do others take the same precautions?

24. Does the plant management have safeguards to protect the health of you and your co-workers? Are these generally effective?

25. Have you missed work during the past year because of your health?

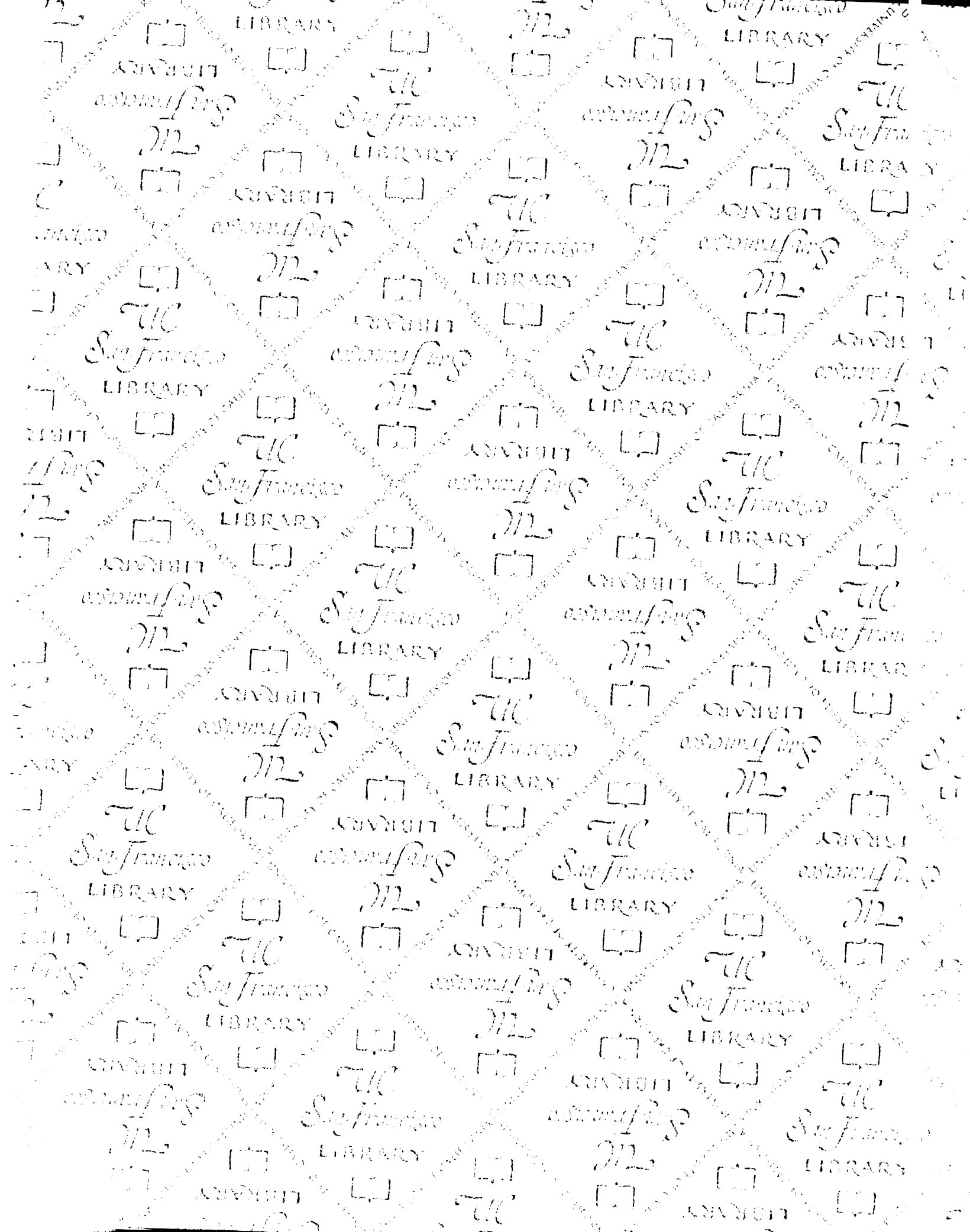
26. Is your health better or worse than others at the plant?
(In what ways might it be different?)

27. Do you and your co-workers discuss health issues?

28. What would be the major changes in your life or work situation right now which could improve your health?

29. Which of those things do you feel you can control? Which are beyond your control?

30. Does having an employee health promotion program influence your health in any way?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