Pendleton, Michael Roy

POLICE STRESS: VALUE DISPARITY, SELF-ESTEEM AND OCCUPATIONAL STRAIN

University of Washington PH.D. 1983

Police Stress:

Value Disparity, Self-Esteem and Occupational Strain

by

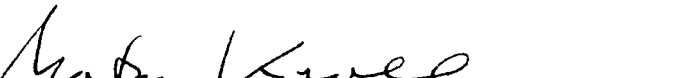
Michael R. Pendleton

A dissertation submitted in partial fulfillment
of the requirements for the degree of

Doctor of Philosophy

University of Washington

1983

Approved by 
(Chairperson of Supervisory Committee)

Program Authorized
to Offer Degree Individual Ph.D.: Organizational Psychology

Date May 6, 1983

Doctoral Dissertation

In presenting this dissertation in partial fulfillment of the requirements for the Doctoral degree at the University of Washington, I agree that the Library shall make its copies freely available for inspection. I further agree that extensive copying of this dissertation is allowable only for scholarly purposes, consistent with "fair use" as prescribed in the U.S. Copyright Law. Requests for copying or reproduction of this dissertation may be referred to University Microfilms, 300 North Zeeb Road, Ann Arbor, Michigan 48106, to whom the author has granted "the right to reproduce and sell (a) copies of the manuscript in microform and/or (b) printed copies of the manuscript made from microform."

Signature Michael R. Ford

Date 5-6-83

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Preface

The subject of this research, Police Stress, like many research ideas, represents a concern developed from my personal experience. While on patrol as a municipal police officer, it became painfully obvious to me that our police suffer from an alarming number of social, mental and physical health problems. Nervous breakdowns, divorce, suicide, heart disease, alcoholism and more were common problems frequently observed among fellow officers. Perhaps more alarming, however, was the sad fact that nothing was being done to understand, control or prevent the occurrence of the many stress related problems. Ouite simply, it was undignified as a police officer or police administrator to demonstrate concern or otherwise acknowledge the pervasive illnesses that are plaguing the occupation. More important was the preservation of the police image as "indestructable heros" forming an unappreciated army to fight domestic war.

This research was conducted, in part, to illuminate some of the factors that I soon recognized as principal causes of police strain, namely their own occupational values and attitudes. For in truth, the objective dangers in police work are relatively minor as stressors when compared to the hazards of the day to day "internal dynamics" found among the police themselves.

Additionally, however, this research was undertaken to register my unwillingness, as a concerned police officer, to perpetuate a mythical image of police that so profoundly compromises their well being.

I offer instead, an alternative view of our police; one which recognizes their competence while acknowledging their vulnerability in an attempt to address the understandable problems with the profession. Through this research I challenge enlightened police officers in both administrative and line positions to face a "new enemy"--those health destructive attitudes and values that compromise the profession.

Acknowledgments

I wish to express my most sincere appreciation to my Doctoral Committee, Morton Kroll, Hubert Locke, Frement Lyden and Ezra Stotland for their continued support. A special thanks to Ezra for his availability, wisdom and understanding throughout this research project. To my family and friends, a hearty thank you for their interest and support. Thanks also to Barbara Hadley for her encouragement and reminder to "maintain perspective." To Gerty, a most special thank you for "never giving up." Finally, I dedicate this research to the men and women "out there" on patrol who give so much and get so little; thank you.

Introduction

It is increasingly understood that occupational stress and strain is one of the most critical health problems in the American work place today. Occupational stress is usefully defined as those work related demands which tax or exceed the resources of the individual employee (Lazarus, 1966; McGrath, 1970), which can produce negative mental/physical/behavioral consequences or strain. The occupational stress and strain problem has reached such proportions that a recent Surgeon General's Report on Health Promotion and Disease Prevention (1979), has identified stress and its control as a major health concern for the nation. Subsequently, in setting the 1990 health objectives of the nation, the Public Health Service (1980) has set stress control as a primary objective.

One occupation in particular seems set apart from others and in special need of isolating those factors that contribute to occupational strain. Studies of occupational stress demonstrate that the police suffer disporportionally from numerous stress related mental, behavioral and physical disorders (Terry, 1981). Excessive levels of tension, death anxiety, depression, irritation and cynicism are the most frequent emotional and attitudinal problems plaguing the police (French, 1975; Neiderhoffer, 1967; Poole and Regoli, 1979). Stress

is also manifested in the personal and occupational behaviors of police officers, in the form of high divorce rates, suicide rates, incidents of alcoholism (Blackmore, 1978; Hageman, 1977), automobile accidents, and disability claims and absenteeism, (Daviss, 1982). Additionally, police officers have been found to suffer from high rates of circulatory and digestive dysfunction, heart disease and premature death (Richard and Fell 1975).

The increased awareness of the police stress problem has led many noted authorities on stress such as Hans Selye (1978, p. 7) to conclude that police work "ranks as one of the most hazardous (professions) even exceeding the formidable stresses and strains of air traffic control."

In spite of the increased understanding of the alarming nature of police strain, very little data exists which identifies those factors that cause the observed problems (Terry, 1981). The lack of causal data presents a serious barrier to the design and implementation of stress control programs and may account for a willingness of some major police departments to question the usefulness of existing stress control programs (Daviss, 1982).

Recently, scholars and practioners in law enforcement have suggested that incidents of police occupational strain can be attributed to the personal values, value

conflicts and the level of self-esteem among the police. For example, value conflicts between police department employees have been conceptually linked to such problems as alcoholism, marital difficulties, citizen complaints and the general psychological well-being of police personnel (Chwast, 1965; Panzarella, 1980). Similarily, it has been suggested that the level of a police officer's self-esteem may determine his/her ability to manage stress and avoid or experience various types of occupational strain (Stotland, 1975). To date, empirical inquiry into the causal role of value disparities and level of self-esteem in observed incidents of police strain have yet to be conducted.

Related studies from the field of Social Psychology demonstrate, however, that differences in values between individuals and groups, and the level of a person's self-esteem are associated with psychological, behavioral and social well-being.

Value disparity has been reported as an antecedent of adjustment at school in adolescents (Feather, 1975), conflict among college roommates (Sikula, 1970), honest and dishonest behavior (Shotland and Berger, 1970), self-dissatisfaction/satisfaction (Rokeach, 1973), the quitting of cigarette smoking (Conroy et. al., 1979, DeSeve, 1975), and the selection of partners in work

groups (French, 1956). Similarly, levels of self-esteem have been associated with successful interpersonal relationships, anxiety, headaches, goal attainment behavior and illness rates among government managers (Rosenberg, 1965; Coopersmith, 1967; Kobasa, 1979; Stotland and Cannon, 1972).

Although these studies suggest the utility of the value disparity and self-esteem concepts for understanding occupational stress and strain, their findings are difficult to apply to the police. Conflicting definitions of value, an absence of guiding occupational stress theory, and a missing linkage to the specific nature of the police occupation are among the problems that limit the application of existing data. Lazarus (1966) notes that definitional consistency, situational context and a specified casual relationship between antecedents and outcomes are important to a meaningful examination of stress and strain.

The purpose of the present study is to investigate the effects of value disparity and self-esteem on a wide range of work related strains among police officers. Value disparity is defined as the difference in human values (preferable modes of conduct/end states of existence) between specific individuals and particularly groups in their working environment. Self-esteem is

defined as the evaluation a person makes of him/herself, expressed as an attitude of approval or disapproval indicating the extent to which he/she thinks of him/herself as capable, significant, successful and worthy (Coopersmith, 1967, pg. 5).

The specific applied aims of this research is to improve our understanding of the causes of police strain and contribute to meaningful attempts to prevent and control observed problems. Additionally, the present study will address the limitations and gaps in existing data by integrating the concepts of value disparity and self-esteem into an interactionist theory of stress that seems most representative of the policing profession. In this respect the specific theoretical aim of this research is to test the utility of the Person-Environment fit theory of stress for isolating causes of police strain.

Chapter I

Theories of Stress

The research and writing on stress has generally reflected one of three theoretical approaches: the response defined, the stimulus defined and the interactionist defined models. Each of the approaches have developed from somewhat different conceptual backgrounds which have shaped, if not limited, the span of empirical inquiry.

The response defined model, the first theory of stress, was pioneered by Hans Selye in the 1950's. Selye borrowed the term "stress" from the field of engineering to refer to physiological reactions by individuals who were exposed to "non specific" stimuli in their environment. The stress reaction was termed the "General Adaptation Syndrome" and if experienced over time would lead to physical damage. This syndrome was characterized by three stages: (1) alarm reaction - when suddenly exposed to diverse and/or noxious stimuli there is an immediate reaction in the body such as decreased temperature, tachycardia, loss of muscle tone, enlarged adrenal cortex and secretion of corticoid hormones; (2) resistance stage - adaptive behavior and continuous changes in the body to defend against the noxious stimuli; and (3) exhaustion stage - because adaptability can only

occur for a limited period, exhaustion and/or collapse of vital functions will appear after prolonged exposure to stimuli. If stimuli persist, unabated, death will result.

Research that has been influenced by Selye's approach have focused upon physiological outcomes such as coronary heart disease, serum cholesterol, high blood pressure and enlargement effects on the adrenal gland (Kasel, 1978). Although Selye was primarily concerned with the detrimental nature of stress, as "distress" he also included the view that stress could have positive effects, known as "eustress" (Selye, 1956). This latter view has been relatively under-emphasized which accounts for the pejorative connotations most often attached to the term stress (McGrath, 1976).

While Selye clearly pioneered the formulations of human stress and has been the leader in the field, his conceptualizations of stress are not without difficulties. The response nature of this definition has provided little guidance toward identifying and isolating the causes of stress. To Selye "a stressor is whatever causes stress." Secondly, Selye's approach concentrates exclusively upon physiological reactions, ignoring behavioral, cognitive and emotional consequences which clearly are central to the stress/strain phenomenon. Predictably, the response defined approach has contributed little to the development

of stress management programs which concentrate on the causes of stress related strain.

The stimulus defined approach refers to stress as those events, factors, or causes which lead to observed problems. This model was first introduced by Basowitz and his associates (1955) in their study of men in combat. The central concepts in this approach are "stress situations," "stress" and "anxiety," where stress refers to those events, situations and threats that were believed to lead to anxiety as a response.

Research that was guided by this approach has focused upon traumatic events such as war, natural disaster and other events that would clearly represent a threat to personal survival (Grinker and Spiegel, 1945; Baker and Chapman, 1962). This approach broadened the formulation of stress by including affective, behavioral and cognitive responses, previously ignored by the response defined model. By focusing upon antecedents this approach has contributed to the isolation of causes important to stress control. However, because this model originally focused upon situations of extreme duress (men in combat) it has contributed to a predominate interest in the undesirable outcomes of stress while failing to consider the positive effects identified in Seyle's model. Moreover, the

emphasis upon extreme stimulus has pre-empted the consideration of the more subtle dimensions of stress.

The most recent formulation of stress, known as the interactionist model, has been particularly relevent to the study of occupational stress. This model is rooted in the theoritical works of Kurt Lewin (1935, 1951), which emphasizes the interrelationship between the individual and his/her environment. Stress, in this formulation, refers to those situations defined by the joining of individual attainments and the characteristics of his/her environment, where the requirements of the interaction places a demand on the ability and/or resources of the individual and/or the environment. Strain refers to the negative response to the situation, which in turn impacts the interactive relationship.

It is the interactionist approach that guides this study. A more complete and relevant discussion is provided in Chapter II. It is important to note, however, that the primary limitation of this model seems to be its exclusive application to individual level responses. While the environment is an integral component of the model, strain has not been measured at the organizational or environmental response level.

As the three theoretical approaches to understanding stress and strain might suggest, there has been little

consistency and much confusion surrounding the application of these concepts. As the following review illustrates, there seems a need for an organizing framework to guide the research on occupational stress, and manage the many difficulties which plague this important area of study.

Applying the Concepts of Stress and Strain: A Search for Unity

When the three theoretical approaches to stress and strain, the response defined, stimulus defined and interactionist models, are viewed separately, they suggest a continuum of conceptual development progressing in a rather logical and ordered manner. Yet, the distinct differences in these approaches, when viewed in the research and conceptual literature, have contributed to an apparent confusion that seems to surround the application of the term stress. This apparent confusion, however, may be more the fault of scholars who fail to place and maintain their analysis within a theoretical framework, than a generic deficiency with the concept itself. Unfortunately, the resulting conceptual fragmentation in the stress field is no less apparent in the police literature than in the general writings.

Stress

Throughout both the police and general stress literature the differential application of the term stress is evident. The term is used interchangeably to refer to antecedents such as "internal police department discipline or role ambiguity" (Reiser, 1974; Kahn et. al., 1964) as symptoms such as anxiety or tension (Gruber, 1980, and Krohne, 1978) and consequences such as mental illness and suicide (Fell, Richard, Wallace, 1980). Often the same index of stress is used as an antecedent, symptom and consequence, as is the case with "Police Frustration" (Gruber, 1980; French, 1975; Burgin, 1978). Stress has also been used to describe a number of different types of effects including social effects such as riots, social movements, and divorce (Perry and Pugh, 1978; Kroes, Hurrell and Margolis, 1974), psychological effects such as defensiveness and anxiety (Singleton and Teahan, 1978; Buechler and Izard, 1980) and physiological effects such as cardiovascular and respiratory problems (Richard and Fell, 1975) or "diseases" (Selye, 1978).

Some observers have concluded that the term is really only a rubric for related problems and is useful for no more than referring to a broad area of study (McLean, 1974). Still others have gone further in suggesting that

the term is altogether useless and should be forgotten for more productive pursuits (Hinkle, 1973).

There seems little question that the global, often confused nature of the stress concept is troubling and subsequently has prompted many attempts to specify its meaning. These attempts have included: (1) a listing of causal conditions using either specific situations such as poor supervision, offensive organizational policy or jurisdictional isolationism (Einsberg, 1975); or (2) more general theoretical concepts like "perceived imbalance" or "nonspecific response of the body" (McGrath, 1970 and Selye, 1980); and (3) a redefining of the term substituting some other word which is less general but from the same conceptual domain such as stress as "information" interpreted as threat or loss or injury (Lipowski, 1975) or stress as strenuous effort...to maintain essential functions...at a required level (Ruff and Korchin, 1967). Perhaps the most widely accepted definitions have been those that have attempted a greater conceptual precision to facilitate empirical research and theory building. In this respect, McGrath's definition of stress as "a substantial imbalance between demand and response capability under condition where failure to meet demand has important consequences" (McGrath, 1970), or Lazarus' view of stress as a situation in which

"environmental demands tax or exceed the resources of the person" (Lazarus and Launier, 1978), have enjoyed the widest application (Kasl, 1978).

In the physiological literature, stress has been used to refer to psychosocial variables as mediators between various job classification and diseases. The Type A and Type B behavior experiments are perhaps the most notable in reporting the association of personality type with coronary heart disease (Friedman and Rosenman, 1974).

Stress formulations in the occupational setting have generally included all types of the various definitions; however, there seems a propensity for the enumeration type (Kasl, 1978). McGrath (1976) has listed six sources of stress: task, role, behavior setting, physical envir - onment, social environment and personal characteristics. Similarly, Landy and Trumbo (1976) have supplied a list which include job insecurity, excessive competition, hazardous working conditions, task demands, and long or unusual working hours. Caplan et al (1975) viewed stress in a much broader sense referring to it as "any characteristic of the job environment." They go on to specify those stressors, following McGrath and Lazarus definition, to include "either demands which he (sic) may not be able to meet or insufficient supplies to meet (sic) his needs" (Caplan et al, 1975, pg. 3). The nonempirical

literature on police stress has also been dominated by the enumeration type of definitions (Eisenberg, 1975; Kroes, 1976; Kelling and Pate, 1975), although the influence of McGrath and Lazarus is apparent as well.

The predominant conceptualizations of stress converge around an emphasis on the individualistic and subjective approach. The most notable, and perhaps influential example, is McGrath's definition of stress which rests upon "perceived" demands, "perceived" capabilities and "perceived" consequence. Similarly, Gardner and Taylor (1975) provide a typical view of the idiosyncratic nature of the stress definition: "stress is an individual phenomenon, is subjective in nature, and can occur in anyone who feels that he or she is under pressure."

Implicit in this convergence is the assumption that effects are primarily an individual phenomenon to the exclusion of other units of analysis. Moreover, the idiographic nature of this model pre-empts the causal role of organizational and work dynamics in favor of the individual difference which, presumably, accounts for the variance among individuals on measures of strain. The oft cited saying "one man's meat is another man's poison" characterizes this approach and suggests that a more accurate stress/strain model would include individual characteristics in both the causal and moderator roles.

The term stress remains conceptually confused primarily because of the willingness of many scholars to continue to include both cause and effect indices within its conceptual domain in spite of other, more useful options (Warr and Wall, 1975). One such option, which is receiving more use and seems helpful as an effective way out of this conceptual morass has been through the application of the concept "strain." While the strain concept is not immune from definitional confusion, it provides the necessary distinction between cause and effect while also suggesting a certian untility as a linkage between interdisciplinary levels of analysis.

Strain

Like stress, the concept "strain" has been used interchangeably both as an antecedent or stimulus and as a response or outcome. However, unlike stress which is used as both a stimulus and response throughout the literature, the use of the strain concept can be distinguished by intellectual discipline.

At the sociological level, "strain" has been used exclusively to refer to the causes or antecedents of a variety of social phenomenon subsumed under the study of collective behavior. Smelser's theory of collective behavior, which attempts to explain crowd behavior, riots and panic, uses the concept of "structural strain" to

refer to characteristics of the social system which permit or encourage episodes of collective behavior (Smelser, 1962; Lazarus, 1966). Turner and Killian (1972) also consider strain as an "abnormal" causal factor contributing to social conflict and change. Similarly, the study of social disorganization and deviant behavior has developed with the assistance of "strain" in the causal role. Cohen (1959) and Merton (1957) pioneered the construct "socially structured strain" in reference to the disparity between cultural goals and institutionalized means. Strain, in this sense, is useful in accounting for crime, juvenile delinquency, racism and other social problems plaguing a heterogenous society.

In contrast, strain in the psychological domain has referred exclusively to the outcomes or consequences of stress (Kroes, 1976; Grenick, 1975). Psychologists have used strain in reference to emotional states such as anxiety, tension and frustration (French and Kaplan, 1973; Lazarus, 1966). Additionally, strain has been assigned a dynamic quality referring to "stable" traits such as anxiety and "passing" states like job pressure or tension (Payne, 1978).

In the occupational literature, strain has been used to distinguish psychological difficulty such as job dissatisfaction, anxiety and low self-esteem; and

physiological problems like high blood pressure and elevated serum cholesterol and, behavior strains such as smoking and dispensory visits (Caplan, Cobb, French, Harrison and Pinneau, 1975). In the police literature, strain has been used in reference to negative psychological outcomes (Grenick, 1975; Kroes, 1976) and negative physiological outcomes (Kroes, 1976). French (1975), in his comparative study of police with other occupations, never defined stress or strain but used them both interchangeably. Compared to the stress concept, strain has received little usage, being almost nonexistent in the physiological literature.

Paradoxically, while the strain concept seems valuable in dealing with the confusion that plagues the cause and effect distinctions, some scholars opt not to employ the concept in the interest of clarity and an unwillingness to deviate from the "common usage" (Warr and Wall, 1975).

Lazarus (1966) suggests that it makes little difference if effects are called stress or strain as long as their use is consistent and the connotations are "close to the analogy intended by theory." Clearly this has not been the case where multiple usage and discrepant meanings have resulted in an enormous amount of fragmented literature directed to the task of defining stress and

making for, what Lazarus himself has observed as, "dull reading" (Lazarus, 1971).

There are, however, some important implications to the definitional failure. Stress has, for the most part, acquired pejorative connotations from its synonymous association with negative outcomes and has been viewed as a social problem to be managed or eliminated. This view ignores the positive contributions of stress and its essential role as a motivator of human systems. When Hans Selye (1956) pioneered the stress concept, he clearly defined stress in the positive sense (eustress) as well as an antecedent to undesirable outcomes (distress). The effect of stress or the stimulus condition, was conceptualized as a bell shaped continuum where at some point eustress became distress. The failure to conceptually distinguish between stress as an antecedent and stress as a consequence ignores the underlying "threshold assumption" that seems fundamental to the entire question of stress and strain. To the extent that confused conceptualization guides research and the search for solutions to stress related problems, there seems little hope of discovering tolerance norms or factors that enables one individual or system to manage challenges while others falter from excessive pressure.

In this respect, an important advance in the study of stress and related problems has been the development of the Person-Environment interaction model. This approach has addressed the conceptual difficulty which has plagued this field of study by distinguishing between stress as an antecedent and strain as an outcome. Additionally, this approach provides a conceptual framework that considers individual characteristics as causal and moderating factors to the manifestation of strain, along with factors present in the work environment. Most importantly, however, the interactionist view of stress and strain appears particularly relevant to the understanding of the stressful nature of the police profession.

Chapter II

Person-Environment Fit: An Interactionist Model of Stress and Strain

Increasingly, scholars are recognizing what Kurt Lewin (1935, 1951) observed many years ago, that the human condition is not understood exclusively in terms of the environment or the individual. Rather, human behavior and stress and strain in particular emerges from the interaction between both the individual and his/her environment. This view of occupational stress and strain has been characterized as the "person-environment fit model" and was first presented in the early 1960's by a staff of researchers at the University of Michigan (Harrison, 1978).

The model is built around two types of fit between the individual and the environment and is based upon Lewin's (1951) description of motivational processes which requires consideration of both the individual and his/her environment as an interaction (Lewin, 1935). One kind of person-environment fit refers to the degree in which an individual's talents and skills are equivalent or matched to fit demands and responsibilities of the occupation. The second kind of person-environment fit is the extent that the occupational environment provides the individual

with the resources to meet his/her human needs and requirements (Harrison, 1978).

The person-environment fit model is presented in Figure 1. The objective and subjective distinctions in both the individual and the environment are central to the model providing the working definitions of this approach. Objective person refers to the individual as he or she actually exists. For the purposes of this discussion, the attributes which comprise the objective person refers to these psychological factors including needs and values relevant to the work place, which are more or less enduring characteristics (Harrison, 1978). The subjective person defines the individual as he or she perceives themselves, again, on psycho/social attributes such as values, abilities, needs, etc., relevant to their self identity in their occupational role (Harrison 1978). The objective environment describes the working environment independently of the individual's views and perceptions of it (Caplan et al, 1975; Harrison, 1978). This environment can include physical, social, psychological and cultural attributes, but, again for the purposes of this discussion, will center on the objective social-psychological environment commonly found in organizations, small groups and interpersonal relations

Figure 1.

Person-Environment Fit Model of Stress.

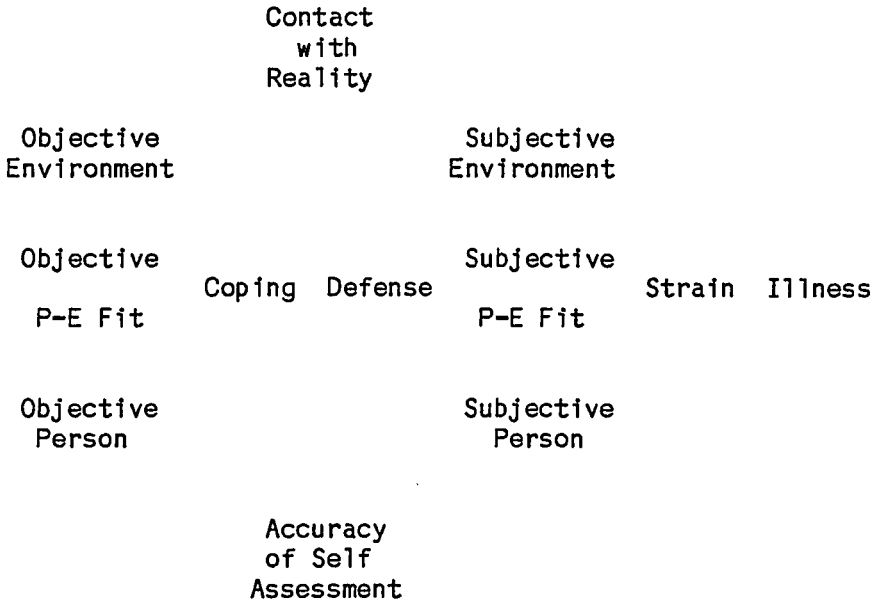


*Figure 1. (Presented by R. Van Harrison, "Person-Environment Fit and Job Stress," pg. 176. In Stress at Work, Cooper and Payne, eds., 1978.

which form a large part of what might be termed the "occupational environment" (Caplan et al, 1975).

Finally, the subjective environment refers to the "occupational environment" as it is perceived and constructed through individual perception. It comprises what Kurt Lewin terms the "psychological environment" (Lewin, 1951) which exists inside the person's head as the result of encounters with the objective environment. The person's subjective environment is not available for direct observation requiring that the individual must report its construction before one can understand its character (Caplan et al, 1975).

Person-Environment Fit as Stress

The four working definitions in the P-E model, objective environment, objective person, subjective environment, subjective person, can be used to define the concepts in the four circles which represent the possible discrepancies between the person and the environment (French et al, 1974). These discrepancies represent causal properties and are defined as stress. Accuracy of self-perception can be defined as the discrepancy between the person's perception of him/herself (subjective person) and the person as they actually exist (objective person). Similarly, contact with reality is the discrepancy between

the objective environment and the person's perception of that environment (subjective environment).

The two other discrepancies represented by the middle circles show the extent of compatability or fit between the attributes of the environment and those of the individual.

The broken lines in Figure 1 represent the interaction between the person and the environment. Again, the P-E fit refers to both objective and subjective matching. Objective P-E fit refers to the fit between the objective person and the objective environment irrespective of the perceptions of the individual. Subjective P-E fit describes the match between the subjective person and the subjective environment, or the individual's perception of the P-E match.

French et. al. (1974) has noted that the four possible discrepancies illustrated by the circles can be determined only if the subjective environment, subjective person, objective environment and objective person are measured, conceptually, on the same dimension. For example, if a football half-back is evaluated by the average number of yards he rushes per game, all of the possible discrepancies can be measured. A half-back who thinks he averages six yards per carry during a game (subjective person), may actually average four yards per

carry (objective person). Similarly, a football coach may have drafted the half-back expecting him to rush an average of seven yards per carry (objective environment), while the half-back thinks his coach and teammates are wanting only five yards per carry. The half-back's accuracy of self-assessment, contact with reality, objective P-E fit and subjective P-E fit can all be determined because the conceptual dimension of average yards per carry per game is applicable across the four possible assessments.

The person-environment fit describes the match between the person and environment as an interaction, which is independent from any possible outcomes which might result from this interaction. In this respect, P-E fit is useful in defining occupational stress. Stress refers to the degree that the environment does not provide the supplies necessary to meet the needs and motives of the individual and, the extent to which individual ability fails to meet the demands of the job which are required for the provision of adequate supplies (Harrison, 1978).

A poor P-E fit can produce several kinds of strain or negative consequences for the individual and/or other social structures. In all cases, the larger the discrepancies between the person-environment match, the greater the stress leading to strain. A closer

examination of the P-E model reveals the stressful nature of a poor P-E fit.

P-E Fit as Motivational Arousal

The person-environment fit approach can be considered a motivational theory of stress in that "fit," "congrence" or "matching" between the person and environment represent attempts or means to attain desired goals. The attainment of goals is a basic requirement associated with the preservation and enhancement of self-esteem (Stotland and Cannon, 1972). Thus, the motivational force of a good person-environment fit is through the occupational goal attainment necessary to preserve or enhance the individual's self-concept (Harrison, 1978).

Goal attainment, and thus self-esteem in the P-E model, is threatened in two possible ways. Either the individual's abilities are not sufficient to meet the occupational demands necessary to achieve the desired goals, and/or the environment fails to supply the resources and/or goals necessary for the individual to meet his or her objectives. Clearly, these two types of misfit can be intimately related, and together or separately can produce the motive arousal (preservation and/or enhancement of self-esteem) which is fundamental to the psychological, behavioral and/or physiological strain responses (Lazarus, 1966).

Individual strains might include physiological problems such as high blood pressures, heart disease, or psychological symptoms such as anxiety or low occupational morale. These strains can occur by themselves or in conjunction with others, and may include undesirable behavior, usually as the amount of stress increases (Harrison, 1978).

In Figure 1, the strain, accumulating over time, can produce illness, usually in one or all of the various conceptual dimensions of strain. Such illness might include ulcers, long term depression, heart disease, etc.

The squares in the center of the model, labeled coping and defense, refer to various activities and/or omissions that an individual might employ in an attempt to manage stress to prevent strain and/or illness. Coping refers to attempts to change the objective individual and/or the objective environment, to improve the match between the two. Defenses, on the other hand, refer to psychological/behavioral processes which redefine or distort perceptions of the subjective person and/or environment, perceptions, again to improve the match. Coping and defense activities can be both constructive leading to reduced stress or destructive, and themselves, represent strain. Excessive drinking, violence, divorce

and even suicide are common measures of strain, reflecting attempts to confront or avoid unwanted stress.

While the P-E fit model is still in its infancy, it has proven useful in predicting health strain in a variety of studies which have indexed strain on several conceptual levels (Caplan et. al., 1975; Harrison, 1978). (For a modifying, but generally supportive interpretation of this view, see Harrison, 1978 and Kasal, 1978). Kasal (1978) has noted, however, that the limited amount of studies, combined with the growing pains associated with a new paradigm, requires further use and refinement to bolster the existing limited evidence supporting the theory's utility.

One problem has been a failure to identify and test conceptual dimensions which are relevant to both the individual and the occupational environment (Harrison, 1978). The complexity of most working environments combined with the unique and numerous individual characteristics often makes this a difficult task. Pervin (1976) has suggested an approach which would identify those bridging dimensions which are relevant to the "interrelationship" between the person and the working environment. Yet, such a conceptual dimension must also have logical linkages to the manifestation of strain related problems. The <u>value</u> concept seemingly meets these

requirements and also seems particularly relevant to the nature of police stress and strain issue.

Chapter III

Value Disparity, Self-Esteem and Strain:

Values as a Common Dimension of P-E Fit Theory

Discussions of the motivational properties of P-E fit have centered on the role of human values, value assimilation and value compliance. The value concept has been used to refer to both individual processes and those attributes and demands which characterize the occupational environment. At the individual level values are defined as "an enduring belief that a specific mode of conduct (instrumental value) or end state of existence (terminal value) is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence (Rokeach, 1973 p. 5). Values, as the most central of the human cognitions, are limited in number and while subject to change are among the most enduring elements in the cognitive structure (Rokeach, 1973). Values are employed as standards which guide behavior, determine attitudes toward other people, objects and situations. As a structure of evaluative standards, values influence judgements of one's self and others, playing a key role in the social comparison process; a process which is central to the interrelationships between individuals and groups (Rokeach, 1973; Festinger, 1954). Moreover. values are used to persuade and influence others while identifying

which values, beliefs, actions and attitudes of others are worth challenging (Rokeach, 1973). In this respect the occupational values of a given employee are representative of both the characteristics that define occupational ability and the motives that direct relevant work behaviors.

Although values are often considered as individual level concepts, they have been meaningfully applied to the institutions and organizations which have defined the occupational environments in the P-E fit model. Robin Williams has defined institutions as a "set of institutional norms that cohere around a relatively distinct and socially important complex of values" (Williams, 1951, p. 29). Similarly, Rokeach (1979) considers institutional values as "representations of institutional goals and demands."

Specific role requirements and performance expections can be viewed as a set of values which characterize the occupational environment. Organizational procedures for particular job duties and activities represent the instrumental or process valves within the work environment. Similarly, the desired products and services provided by an organization necessary to sustain its survival and growth represent the important terminal values within the work environment.

Values then, may be usefully employed as a necessary "bridging" concept common to both the individual and the work environment. The interaction between the individual and the work environment can be reflected in the degree of similarity or match between those values. To the extent that there is value similarity between the individual and the environment there would be a match in the demands of the job and the motives of the individual. Conversely, value disparity would reflect a poor P-E fit, and would act as stress leading to various manifestations of strain (Harrison 1978).

Value Disparity as Stress

The stressful nature of a poor value match between the person and the work environment is linked to the relationship between role demands and individual motives. Values are thought to have strong motivational components which produce behavioral, cognitive and affective responses (Rokeach, 1973; French and Kahn, 1962; Lewin, 1951). Occupational values develop from internalized role demands through learning and the socialization process (Rokeach, 1973; Becker, 1969; Feather, 1975). When the expectations for occupational role behavior are adopted as values to be demonstrated in the occupational setting, they, in turn acquire motivational properties (Harrison, 1978). Several studies have demonstrated that there are

strong pressures by work groups for cognitive similarity among its members (Cartwright and Zander, 1968; Festinger, Schachter and Back, 1950; Scott; 1965, Newcomb, 1960; Seashore, 1954). Those who deviate from expected attitudes and values are sanctioned in a variety of ways including rejection, resulting in increased anxiety and tension (Stotland and Canon, 1972; Pepitone and Wilpizeski, 1960). In meeting the role demand for accepting and demonstrating the required occupational values, the individual gains the approval of others who share some of the same values which enhances self-esteem and preserves a sense of positive identity and competence (Harrison, 1978; White, 1959; Stotland and Cannon, 1972). Failure to meet the role demand for shared values among an occupational reference group results in self-degregation and sustained tension (French and Kahn, 1962), compounded by disapproval from members of the reference group. It is the sustained tension and self-disapproval which can both characterize and lead to other manifestations of strain. Conversely, when the individual internalizes the values of his/her occupational reference group, the resulting motive arousal leads to immediate job satisfaction and accounts for the desirable consequences associated with group support and compatibility (Katz and Kahn, 1978).

Values and the value disparity construct has been productively applied as a bridging concept in the analysis of interrelationships between individuals, groups and organizations. Several studies have demonstrated that the quality of relationships as well as the decisions to enter, maintain or terminate the interactions, at a variety of levels, are based upon value differences. Feather (1971), using values as the common conceptual dimension in a person-environment fit study, found that value system disparity between entry level university students and the perceived values of the enrolled students was significantly associated with the students' decision to enroll in a given university. Additionally, the willingness of people to continue in a relationship had also been associated with value disparity. Shotland (1968) found that the decision of clients, in a client-counselor relationship, to discontinue or continue the counseling session was associated with the degree of disparity between their respective value systems. Similarly, Sikula (1970), in his study of 50 pairs of college roommates reports that those who stopped being roommates because of conflicts differed, significantly, in their terminal value systems.

Value Disparity and Strain

Value disparity, as stress, has been conceptually linked to strain at a variety of differing levels of analysis. Although this specific association remains untested empirically, this causal theme can be found throughout the stress literature.

Rollo May (1957), in his conceptual analysis of value conflict and anxiety as strain, asserts that differences in values act as a threat which "causes individual anxiety" and dissatisfaction. The social and cultural etiology of human values combined with social change continually creates a value disparity between the individual and the cultural milieu in which he/she resides. The demand for conformity combined with an unwillingness to violate or surrender cherished values gives rise to the most "fundamental of human anxieties."

Similarly, value disparity leading to individual anxiety and self-dissatisfaction plays a central role in Rokeach's (1973) theory of value change. The awareness that one's actual values are, in fact, different from what the individual believes them to be creates a sense of dissatisfaction and tension which leads to a change in his/her values and behavior (Rokeach, 1973).

The effects of internal value disparity is not limited to emotional strain, but has also been associated

with health deteriorating behaviors. In a study designed to alter smoking behavior, Conroy et. al. (1973) found the difference in ordering of the values "broadmindedness" and "self-controlled" significantly distinguished smokers from non-smokers. Similarly, DeSeve (1975), in a replication of the Conroy study, reports the same findings among a similar but larger sample.

Value disparity has also been applied to interrelationships between individuals and the perceived values of organizations as value processing entities. Feather (1972), in another person-environment fit study, requested secondary school students in Australia to first report their own values on the Rokeach value survey, and then to report the values of their schools as they perceived them. The degree of value fit between the student (person) and their perceptions of the school (environment) were associated with a variety of self-report and objective behavioral measure of school adjustment. Feather reports a moderate and significant relationship between value disparity and these measures of school adjustment (Feather, 1975).

Using a similar conceptualization of occupational interactions as value relationships, Rokeach et. al. (1980) indexed "organizational alienation" as the degree of disparity between an individual's values and his/her

perceptions of the values held by the corporation in which they were employed. Citing several writings that have identified value conflicts as antecedents to problems of morale and motivation, Rokeach suggests that the value disparity construct is useful for understanding various organizational strains such as job dissatisfaction and low job performance (Rokeach et. al. 1980).

Value disparity between an individual and his/her occupational superiors has also been linked to indices of strain. Gross, Maron and McEachern (1958) report in an analysis of the interrelationship between school superintendents and their respective school board members, that manifestations of poor mental health and occupational efficiency were associated with a disparity in their respective values.

Self-Esteem as a Moderator of Stress and Strain

It is readily apparent that the presence of stress is not an absolute assurance that strain will follow. The unique characteristics, attributes, and resources that individuals bring to a stressful situation can account for the observation that not all people who experience stress will also manifest strain. Social scientists, for some time, have believed that those critical characteristics which moderate the stress-strain relationship represent

many of the answers and techniques necessary for effective stress management.

The differential nature of value disparity, as stress, may be accounted for by the unique relationship between human values and the core concept, self-esteem. Self-esteem, as a relatively chronic attitude, is the function of the individual's life experiences and interactions with his/her social environment, particularly as these interactions implicate individual performance, acceptance by others and goal attainment (Stotland and Cannon, 1972).

Rokeach (1973) has noted the role of human values is central to the development, maintenance and enhancement of self-esteem. Values provide the basis or frame of reference by which individuals can evaluate themselves and others and therefore are central to the formulation of the self-esteem attitude. Values, as standards for desired human performance, signal those behaviors that are personally and socially acceptable and unacceptable, and thus lead to relative degrees of self and social sanction. Personal thoughts, behaviors, and communications that are contrary to one's value system can lead to a diminished self-evaluation and thus threaten self-esteem. Similarly, actions by others that violate one's values are likely to

result in communications that demonstrate disapproval, which again may affect the others' level of self-esteem.

There are, however, strong indications, that self-esteem also plays an independent role in the management of numerous other stressors which can lead to strain. Ezra Stotland (1975) has noted that substantial empirical data exists which establishes low self-esteem as an antecedent of strain. Numerous findings suggest that the ability of an individual to manage pressures, threats and other stressors may be accounted for by the general level of an individual's self-esteem. Studies demonstrate, for example, that high self-esteem people cope with verbal abuse more effectively than low self-esteem people. They are more readily able to function smoothly when faced with demanding tasks. High self-esteem individuals experience less anxiety than low self-esteem people. They also tend to remain in threatening situations longer and face frustrations more effectively (Stotland and Canon, 1972).

It is not surprising, given the importance of self-esteem in the management of demanding stressors, that evidence of strain is also conditioned by levels of self-esteem. Kobasa (1979), in his study of stress and sickness in public utility executives, found low self-esteem to be the strongest predictor of illness rates

under stress conditions. Similarly, several studies of the effects of job overload have indicated that low self-esteem characterized those who demonstrated higher tension, greater blood cholesterol levels and faster heart rates (Sales, 1969; French, Tupper and Mueller, 1965; French and Kaplan, 1973).

The data reviewed concerning values and self-esteem suggest that these concepts could be usefully applied in a Person-Environment fit formulation of stress. Value Disparity, as a common measure of Person-Environment fit, seemingly encompasses many of the attachments and interrelationships between the person and the environment. Similarly, self-esteem seems useful as a generic measure of the wide range of abilities and resources that an employee would bring to the work setting.

Chapter IV

A Person - Environment Fit Model of Police Stress

It is commonly believed that the stressful or demanding nature of police work resides with the objective events and dangers thought to define the police role. High speed auto chases through crowded streets, gun battles in supermarkets and violent arrests of unwilling criminals are among those activities popularly portrayed as causes of strain (Daley, 1971; Wambaugh, 1975). Although these events occur, and are clearly stressful, they do not represent the majority of the police activities that comprise the police role. In fact, crime related activities account for only 15 to 20 percent of an officer's daily activities, with the remaining 80 to 85% devoted to calls for community service and regulatory activities related to maintaining public order (Wilson, 1975; Black and Reiss, 1967). The low percentage of crime related activity may, in part, account for police officers consistently reporting that the dangerous aspects of police work seldom worry them (Watson and Sterling, 1969).

A more accurate view of the stressful nature of police work reveals a complex network of routine day to day interactions with numerous diverse people and groups who demand assistance and require guidance to insure the reasonable operation of a society. As Reiss and Bordua

(1967) have noted, the "fundamental task" of police is to participate, maintain and manage external relationships, which are most often antagonistic. This network of relationships with the general public, fellow officers, administrators, other agencies, and the media help define the working environment for police and contain those chronic stressors (demands) which plague the police officer (Hagemen, 1978; Insel and Moos, 1974). Predictably, police officers complain about their poor relations with supervisors, the community, and other criminal justice agencies as a primary cause of occupational strain (Fell, Richard and Wallace, 1980; Kroes, Margolis and Hurell, 1974). Similarly, police administrators cite relations with their subordinates and the community as central factors which cause them to experience difficulties in their work and personal lives (Hillgren, Bond and Jones, 1976).

The stressful nature of police work as a network of interpersonal relationships seems best understood by an interactionist model of stress. Figure 2 demonstrates a person-environment fit model of police stress with a special emphasis upon the value nature of both the individual and the police working environment. As suggested by this model, several hypothesis between key variables can be formulated. For the purposes of the

Figure 2.

Person-Environment Value Fit Model
of Police Stress/Strain.

Police Value Environment

1. Value Demands
   a. Supervisor
   b. Peer
   c. Public
2. Psychological Supplies
   a. Values as Expected Standards
   b. Enhanced Self-Esteem for Value Compliance

Person-Environment Value Match As Stress

1. Value Similarity/Disparity
   a. Actual
   b. Perceived
2. Interaction of Values and Self-Esteem

The Police Officer

1. Values as Motives
2. Self-Esteem as Ability

Individual Strain

1. Anxiety
2. Illness
3. Alcohol Abuse
4. Blood Pressure
5. Family Well-Being

Occupational Strain

1. Automobile Accident
2. Sick Leave
3. Citizen Complaints
4. Occupational Alienation

present study, three hypotheses have been selected for examination.

Value Disparity as Police Stress

Hypothesis 1. The greater the actual or perceived value disparity between a police officer and his peers, the community or supervisors, the greater the police officer's individual and occupational strain.

A principal cause of stress in the working relationships of police are the numerous conflicting expectations for particular police role behavior by various groups (Aldag and Brief, 1978; Hageman, 1978; Corbett et. al., 1979, Preiss and Ehrich, 1966). At once, an officer is expected to be kind and compassionate yet sufficiently detached, emotionally, to take a human life; to adhere strictly to departmental policy and procedure yet practice "discretionary law enforcement" emphasizing situational circumstance. Similarly, police officers are expected to enforce laws of honesty and morality yet often are pressured by the need for peer group solidarity to remain "silent" in view of police malpractice and/or corruption (Skolnick, 1966; Westley, 1970; Reiss, 1971).

Various analysis of the police role have demonstrated that police officers form relationships and are subject to the demands of at least three distinct audiences; the

public, peers, and supervisors/subordinates (Sterling, 1972; Hageman, 1978; Preiss and Ehrlich, 1966). The degree of value similarly/disparity between police officers and these primary groups within their environment, while not the direct focus of empirical inquiry, has been a stress related theme in police research and writing.

The conflicting expectations that are often presented by various groups seem to be evidenced in the personal value system of police officers. Paradoxically, police value competence, achievement and self-actualization side by side with a devaluation of helpfulness, autonomy and a sympathetic view toward the general public (Rokeach, 1973; Panzarella, 1980).

Similarly, in a study of policemen in a mid-western city, Rokeach, Miller and Snyder (1971) found a significant difference between the value systems of police and representative sample of black/white Americans. The police tended to be most concerned with personal values rather than social values and were much less concerned with "equality" than other groups, resembling most closely the ranking obtained for Wallace supporters in the 1968 presidential campaign. Predictably, several problems stemming from poor police-community relations have been accounted for by the multiplicity of values represented in the community, which are at variance with police value

systems (Cohn and Viano, 1976). The value differences may be viewed as a split between the demands of a paramilitary occupation and the conflicting expectations by the public for more humanistic treatment. Indeed there is a sizable body of police literature devoted to the explication of a police occupational culture which is characterized by solidarity and isolation from the general public (Skolinik, 1967; Reiss, 1973; Westley, 1970; Rubinstein, 1973; and many others).

Yet, in spite of the prevailing view that the police, as an occupation, are a unified force, there is evidence that value discrepancies also occur between and within subgroups of police. Watson and Sterling (1969), in their within occupational comparison study, found that patrol officers and detectives were significantly more conservative in their political orientations than command personnel. It is not surprising, given these differences, that role conflicts between command officers and line personnel are frequent occurrences, often centering around policy judgements, law enforcement priorities and/or procedural decisions (Murphy, 1977; Wilson, 1964; Rubinstein, 1973; Fogelson, 1977).

Among the limited number of empirical studies of occupational stress focusing on police, there is evidence that interpersonal and intergroup professional value

conflicts are associated with work strain. Kroes, Margolis and Hurrell (1974) sampled 100 Cincinnati police officers and found "the administration of the department" to be the most often reported stressor. Specifically, the officers were bothered by lack of administrative support, exclusion from participation in departmental decisions, and adverse working schedules. Similarly, French (1975), in a comparative study of police work with 23 other occupations, sampled 2,010 men of which 223 were police officers and managers. Like Kroes et. al., French reported a lack of participation in decision making, responsibility for others, low salaries, and complexity of the work as the principal causes of anxiety, depression and irritation. Of these factors, exclusion from decision making was, again, the most bothersome.

These work conflicts often culminate in the exercises of official sanctions such as denial of promotions, or transfers to undesirable working assignments (Rubenstein, 1973). Similarly, racial animosity, conflict and increasing polarity between black and white police officers has been reported to be associated with value disparity between the two groups (Teahan, 1975). Predictably, the difference between the groups was best distinguished by the value of <u>equality</u> (Teahan, 1975).

Within groups, value disparities between individual officers and their peer groups has often had dramatic and serious implications for those police officers who fail to integrate the values of the police subculture (Skolnick, 1967; Riess, 1971; Panzarella, 1980) into their personal value systems. This omission often results in the officer being isolated by other officers (Rubenstein, 1973) and subjected to various other forms of abuse. The most popular example being Frank Serpico, a New York police officer who refused to participate in illegal extortion activities and subsequently violated the "code of silence." The value disparity between Serpico and other officers resulted in his isolation from other members in the department and culminated in a shooting incident leaving him wounded and disfigured for life (Maas, 1973; Daley, 1971).

Additionally, a supervising psychologist for the New York Police Departments maintains that incidents of strain, in the form of divorce, alcoholism, criminal behavior, occupational alienation and suicide can be linked directly to value conflicts between department members positioned both vertically and horizontally within the organizational structure (Chwast, 1965). Similarly, Hasluch and Jackson (1979), in their study of the effects of police "burnout" on the family, suggest that occupational value conflicts

can lead to alcoholism and drug abuse. In support of Chwast's assertions that value conflicts can occur between department members in a variety of directions and levels, Panzarella (1980) identifies the value systems within the police organization and suggests that a variety of strains such as citizen complaints, labor management disputes and the general psychological well-being of police personnel stem from basic inconsistencies and disparity in professional values.

The Police "Value" Environment

The stressful nature of police value disparity is in part understood by the heterogenous nature of the police working environment. Public contacts can range from wealthy business owners, to disadvantaged minority residents to groups who prefer alternative life styles. Similarly, various police officers maintain diverse opinions and methods for managing conflict, maintaining order and guaranteeing their own personal safety. Police administrators, on the other hand, attempt to reflect both the diverse concerns of the public and those of the police organization. Supervisory styles may range from a rigid, authoritative, rule oriented philosophy to a democratic, participatory style which emphasizes officer ability and creativity (Munro, 1974; Rubenstein, 1973; Reiss, 1971).

Clearly, in many instances, the expectations of one group in an officer's working environment are in direct opposition to the expectations of others. Compliance with one set of work demands made by fellow officers makes compliance with the demands, say from the public or police administrators, difficult and at times impossible. These disagreements extend to both how an officer should conduct the activities of policing as well as to the overall goals and objectives of the police function. Recent debates have focused upon such issues as search and seizure activities, use of deadly force, effective police community relations, crime reduction strategies, organizational styles and other law enforcement goals (Roberg, 1976; Radelet, 1973; Goldstein, 1977; Fogelson, 1977).

The conflists around preferred policing methods, and desirable law enforcement goals are explicitly value oriented. As various people/groups in the police environment register their preferences they are asserting their expectations for police compliance with specific values. To resist arrest is a vivid indication that one values <u>freedom</u>, while cooperation and willingness to "go along peacefully" may indicate a belief in <u>authority</u>. A supervisory order for an officer to cut his/her hair indicates an expectation of <u>obedience</u> with little regard for individual difference or <u>independence</u>. When fellow

officers criticize a young officer for "backing out" of a high speed chase after identifying a license number, this indicates a group preference for courage and little regard for imagination.

The working environment within which an officer functions can be defined by values that underlie the numerous occupational relationships. Conflicting expectations from the numerous individuals and groups can be understood as conflicts in basic values. The demanding nature of police work often resides with the impossible task of managing the conveyance of contradictory value systems.

Values, however, also seem useful in understanding those "psychological supplies" that the police environment provides to meet the basic psychological motives of police officers. Specifically, the enhancement and maintenance of an officer's self-esteem is, in part, based upon the occupational values that guide their behavior (Rokeach, 1973; Harrison, 1978). By employing values as standards, both the police officer and fellow officers, the public, administators, etc., can judge occupational behaviors and reward officers for meeting job expectations.

It is not uncommon that police officers receive letters of commendation from administrators for outstanding work, or that citizens write letters of appreciation for

heroism or sensitive police response. Similarly, officers who present solid well prepared cases for court are often rewarded by praise from prosecutors and promotions to investigative positions in the police department (Goldstein, 1977; Repetto, 1978). The basis for these rewards is compliance or congruity of value based behavior of the officer with the value based expectations of other individuals. For the police officer, his/her occupational values contribute to the self-judgements that determine their level of self-esteem.

Values as Indicators of Police Motives

As previously discussed, values have highly motivating qualities as representations of preferred methods and goals. Values are believed to underlie the behaviors and attitudes of individuals. In spite of the utility of value analysis for understanding police behavior, police values have rarely been the focus of empirical inquiry. While extensive evidence is lacking, the limited data on the nature of police values are consistent. Additionally, the existing value profiles of police are logically linked to a sizeable volume of other personality and behavioral data developed to understand the "police personality" and police behavior (Lefkowitz, 1975).

The police when examined as an occupational unit have been found to hold a distinctive set of values. Rokeach

et. al. (1973) report that police officers rank family security, responsibility, a sence of accomplishment, honesty and self-control high in their value systems while caring less about equality, independence, being imaginative, cheerfulness, helpfulness and being forgiving. These rankings were also obtained in similar studies by Teevan and Dolnick (1973), Bennett and Greenstein (1975), and by Teahan (1975).

The high ranking of the value family security and responsibility are consistent with other findings that police are motivated to become police officers because of a need for job security (Gorer, 1955; Neiderhoffer, 1967; Reiss, 1967). Additionally, an emphasis on family responsibilities, the fear of lay off, are similar to the views of the working class from which most police officers are recruited (Lefkowitz, 1975).

The relatively low ranking of equality in the police value system seems consistent with at least two sets of studies on police attitudes. Studies of political attitudes indicate that police are a conservative, even conventional group that is concerned with maintaining the status quo (Astor, 1975; Bayley and Mendelsohn, 1969; McGaghy, 1968). Police are known to join disporportionally, conservative, even right wing political organizations and at times use their official positions to

further such views (Kronholm, 1972; Heussenstamm, 1971). The low ranking of equality is characteristic of political conservatism and the belief that a hierarchial society with differential advantages is essential for strength and productivity (Bishop, 1969).

Perhaps more directly relevant to the low ranking of equality are data concerning police attitudes and behavior toward minorities. Several empirical and descriptive inquiries have demonstrated that the police hold a negative bias toward blacks and other minorities. Most recently, evidence has emerged which suggests that these negative views also extend to women police officers who have assumed more traditional male roles within police departments (Bayley and Mendelsohn, 1969; Kiernan and Cusick, 1977; Dreifus, 1980; Black and Reiss, 1967). Although the evidence that police behavior is representative of their negative bias is contradictory, there is an indication that police employ, disporportionately harsh law enforcement tactics in minority communities and on minority suspects (Ferdinand and Luchterhard, 1970; Piliavan, 1973; Morales, 1975) and unduly harass fellow black and women police officers (Calame, 1970; Cory, 1979; Dreifus, 1980).

The low ranking of the values cheerfulness, helpfulness and forgiving support numerous findings that police are encouraged to place a greater value on "hard

line tactics" rather than relying on other more humanistic approaches when dealing with people (Watson and Sterling, 1969; Reiss, 1971). Although police officers report that "helping others" is a principal motivation for joining the police profession, they most often discover that such an approach receives little organizational and peer support (Mills, 1969; Matorazz et al, 1964). Conversely, the utility of the hard line approach is reinforced by the perceptions that the danger in police work is enhanced by an open, flexible enforcement approach (Skolnick, 1967), that the need for peer support rests upon the ability to demonstrate a firm, often aggressive approach to solving enforcement problems (Reiss, 1971; Rubinstein, 1973) and that performance evaluations and other organizational rewards rest on the number of arrests and citations, rather than developing control and goodwill in the community through leniency (Goldstein, 1977; Rubenstein, 1973).

The high ranking of the value <u>self-controlled</u> combined with the low rankings of <u>independence</u> and being <u>imaginative</u> seem predictable in view of the quasi military structure that characterize most police departments. Descriptive studies of police consistently demonstrate the controlling role of rules and procedures in the function of the organization (Wilson, 1975) and the numerous sanctions employed against those that deviate from prescribed

procedure (Rubenstein, 1977). Conformity to dress codes (Murphy, 1977), methods of arrest and investigation (Harris, 1973) and other formal and informal expectations often discourage creativity and autonomy as guides for professional behavior. Similarly, the emphasis on a reserved, detached demeanor (Reiss, 1971) as a means to handle citizens, avoid complaints and demonstrate professionalism can account for the high priority attached to being well disciplined and self-controlled.

Finally, the high ranking of the value a sense of accomplishment is supportive of Lefkowitz (1974) and Arcuri's (1976) findings that police view their role activities as a means for self-actualization, personal gratification and pride. To successfully manage the challenges of the police role can provide a sense of professional competence and accomplishment among police while contributing to their overall level of self-esteem (Stotland, 1975).

Police Ability and Self-esteem

Hypothesis 2. Given that higher value disparity acts as a stressor, the higher an individual's self-esteem, the lower the individual's level of strain.

The methods of selecting and promoting competent police officers, while the subject of controversy, debate

and continued research (Smith and Stotland, 1973; Gray, 1975; Reiss, 1967; Wilson, 1964), have increasingly begun to reflect the job standards and criteria for desirable officers (Lefkowitz, 1977). Although there is some disagreement over what distinguishes the "good" police officers from the less competent, some general characteristics have been identified. Standards of moral integrity, self-control, intellectual competence, self-confidence, dependability under pressure, and verbal proficiency are among the qualities most frequently discussed (Fogelson, 1977; Murphy, 1977; Muir, 1977).

Stotland (1975) has noted that the attributes that are most often associated with desirable police candidates and competent police officers are the qualities that are characteristic of people with high self-esteem. High self-esteem people tend to be leaders in group situations (Rosenberg, 1965), are more confident and resist attempts to be persuaded (Rosenberg, 1963; Worchel and McCormick, 1963), more willing to take action in emergency situations (Leventhal and Trembly, 1968) and are less intimidated by threats to personal safety (Zimbardo and Formica, 1963).

The similarity of those desirable police characteristics and those attributes of high self-esteem individuals suggests that self-esteem may be a valuable indicator of police abilities to manage those demands

within their work environment. Moreover, as previously discussed, the ability of police to manage stress and reduce the incidents of strain may be influenced by their level of self-esteem, a central concept directly related to the behavior and actions demonstrated within the work environment. Arcuri (1976), in a comprehensive survey of 816 police officers from 26 different police departments, found high self-esteem to be associated with high levels of job satisfaction. Moreover, feelings of self-fulfillment and personal reward were linked to the delivery of "helping" services and successful management of "emergency" situations.

The level of self-esteem in police officers, like most people, however, can be both enhanced or threatened by events in the environment (Stotland and Canon, 1972). Given the sporadic, pressure filled, conflicting nature of police work, the level of self-esteem among police personnel may vary significantly according to job assignment, occupational experiences and other major work events. Events that threaten a police officer's self-esteem may result in undesirable behavior as a means to restore self-worth, particularly if that person has low self-esteem. Stotland (1976) and Stotland and Martinez (1976), in analysis of violence by police and prison personnel at Attica and National Guard personnel at Kent

State, conclude that threats to self-esteem and a sense of competence were key factors in the frustrations and anxiety among some "police" personnel, which led to numerous acts of violence. While there is no way to determine the level of self-esteem of the police personnel involved in these violent situations, existing empirical data on the influence of self-esteem suggests that these officers may indeed have been suffering from low or threatened self-esteem.

Police Strain - An Individual and Occupational Problem

Hypothesis 3. The greater the individual strain, the greater the occupational strain.

The majority of research and writing on police stress and strain have been descriptive inquiries of the physiological, psychological and behavioral effects of job demands on individual officers. Strain has been indexed as physical illness, death by disease, high blood pressure, anxiety, divorce, excessive drinking, suicide and various undesirable attitudes and emotions. The inclusion of these indices of strain is based on the implicit assumption that these problems stem from unresolved tensions and job pressures (stress). In some instances measures of strain are viewed as maladaptive defense mechanisms (drinking, drug abuse) and failures to cope with observed stressors

(suicide, divorce) both of which may very well be interlocked (Terry, 1981). With few exceptions, the problems defined as strain have remained as individual level personal problems confined within the boundaries of the individual officers. Seemingly, it is assumed that negative consequences for the individual employee also results in negative occupational behavior. While this assumption has "common sense" validity, it has yet to be empirically tested. Larson et al, (1968) warns against the failure to test the "obvious" by detailing numerous beliefs and assumptions which have been refuted by research. It seems important, therefore, to examine the nature and interrelationship of individual and occupational police strain.

Individual Police Strain

Several studies have been completed which describe the nature of individual level strain among police. Richard and Fell (1975), in their study of 130 occupations and a sample of 23,976 Tennessee workers of which 163 were police officers, found police to have "significantly high rates of premature death and were admitted to general hospitals at significantly high rates." They go on to report that police officers have more health problems than other occupations, particularly in terms of circulatory and digestive problems. In support of Richard and Fell are two

studies conducted by the National Institute of Occupational Safety and Health (NIOSH). One study (Blackmore, 1978) of 2,300 police officers in 29 departments reported that 36 percent of these officers had serious health problems and 23 percent had serious alcohol problems. In a second study by NIOSH, police ranked 17th out of 130 occupations for stress related disorders requiring admission to hospitals and/or resulting in death (Blackmore, 1978).

In addition to the many physiological problems experienced by police, they also seem to be burdened with high rates of divorce and suicides. Kroes, Margolis and Hurrel (1974), in their study of 100 police officers, found that 81 married officers indicated that police work adversely affected their home life. In the first NIOSH study, cited earlier, 37 percent of the police officers sampled had serious marital difficulties (Blackmore, 1978). In still another NIOSH study, 22 percent of the officers sampled had been divorced, compared to the national average for Americans of 13.8 percent (Blackmore, 1978). Other studies report similar rates of divorce; for example, in Baltimore, a 17 percent rate, 27 percent in Santa Anna and 33.3 percent in Chicago (Durner, Knoelker, Miller and Reynolds, 1975). These figures are also comparable to a police foundation study which reports a 30 percent divorce rate for police (Baxter, 1978).

An additional, rather sobering, behavioral manifestation of stress is suicide among police. Guralnick (1963), using 1950 census data, found police suicide to exceed that of all other occupations surveyed during that time. Friedman (1968) reports a suicide rate of 80 per 100,000 for New York officers during the years 1937-1940. Heiman (1977) reports rates of 48 per 100,000 in Chicago and 51.8 per 100,000 in San Francisco respectively, during the years 1934-1940. During the years 1950-1967, Neiderhoffer (1967) found the New York City police to be twice as likely to commit suicide as the general population. Nelson and Smith (1970) report an unusually high rate of 203.66 per 100,000 for police in Wyoming, which exceeded all the occupations surveyed from 1960-1968. In Tennessee, Richard and Fell (1975) ranked police third among the occupational groups examined Frim January 1972 to June 1974.

To accompany the list of problems facing police, stress and strain has also been linked with problematic emotions and attitudes. The research on cynicism, while controversial, has produced evidence that police are cynical about many features of their occupational life. Neiderhoffer's study (1967) of the New York Police Department, methodological questions aside (Lefkowitz, 1975), yielded results which suggest significant degrees of

cynicism among New York police. Chandler and Jones (1979), in their article, support Neiderhoffer's findings by identifying many aspects of organizational and role stress which contribute to cynical attitudes among police. Similarly, Poole and Regoli (1979), in their study of three mid-size police departments in Washington state, sampled 260 officers using their own scale of cynicism. They report a significant inverse relationship between police professionalism and cynicism. Wilt and Bannon (1976), in their study of 577 Detroit police, using a control group design, found significantly higher cynicism among the police than control subjects. They also report a positive relationship between tenure on the department and cynicism. In spite of their findings, Wilt and Bannon seem reluctant to conclude that police are cynical, preferring to redefine cynicism as a "realistic" attitude toward the various aspects of police work. In contrast, Lefkowitz (1975), using Neiderhoffer's cynicism scale, reports scores "slightly lower" than Neiderhoffer, yet remains in agreement with Neiderhoffer's impressions "despite the absence of strongly supportive psychometric data" (Lefkowitz, 1975). Using an approximation of Neiderhoffer's scale, Weichman (1979) found police to be significantly cynical toward the judicial process although,

in contrast to Wilt and Bannon, found an inverse relationship between cynicism and the job tenure.

In addition to problematic attitudes, police are also affected emotionally by the various role activities. Wenz (1979) surveyed 120 male officers concerning their emotions related to death and dying. He reports that for the married rookie and the married, more experienced officers with children, death and anxiety is an "ever present concern." French (1975), in his comparative study of police stress, cited earlier, found significant relationships between organizational procedures and anxiety, depression and irritation.

Finally, as one might expect, Singleton and Teahan (1978), in their study of 90 police subjects, found that officers who have recently had stressful encounters with citizens, particularly in situations where they were injured, were more defensive, suspicious and more willing to view outsiders as not understanding police work.

Occupational Strain

Noticeably absent from the conceptualization of strain has been those behaviors, attitudes and consequences which have dual implications for both the individual and the social and organizational structure which comprise the working environment. Moreover, there have been few if any studies which examine the relationship between exclusively

defined individual strain and individual behaviors that place strain on the organization.

Lawler (1976) suggests that the full significance of the occupational stress problem extends beyond the individual to include the effects upon the organization. Thus, a comprehensive view of the effects of job stress would consider behaviors related to quality of work, turnover, absenteeism and other problems which tax organizational resources.

Organizations, when viewed as human resource processing structures, are dependent upon the behaviors of its members for effective operation and thus seem particularly vulnerable to the problems associated with stress and strain (Katz and Kahn, 1978). While human behavior is essential to organizational operation, organizations can be viewed as separate entities apart from its individual members. Prescribed roles, tasks and behavioral settings form the standards and expectations for effective organizational operation and establish the value structure of the organization. This structure can be defined without referring to specific individuals, while at the same time relying upon prescribed human performance for its operation.

Occupational behavior as a particular form of human behavior, is bound by the special goals and functions of

the organization. McGrath (1976) defines occupational behavior as: "actions of organizational members on organizational tasks, in organizational roles, in organizational settings." In this respect, occupational behavior represents an interface between the individual and the organization as a distinct entity, both affecting and defining the other.

Occupational behavior which deviates from the prescribed role and task behaviors can compromise organizational effectiveness and may threaten organizational survival, the "sovereign criterion" of all organizations (Katz and Kahn, 1978). Joseph McGrath (1976), in his analysis of stress and behavior in organizations, identifies the "person system" as a source of stressful situations where the individual "brings with him" problems, anxieties, etc., that can be manifested in occupational behavior. Problematic behaviors that stem from individual stress/strain potentially represent demands or stress to an organization which could lead to occupational strain, the negative consequences of individual strain which may effect both the individual and the operation and perhaps the survival of the organization.

The value concept and the value disparity formulation of stress appears central to the understanding of occupational strain and in particular those stress related

problems confronting the police. Regan, Rokeach and Gruber 1980, note that values are essential to the understanding of such organizational problems as low morale, motivation and persuasion. England (1967) notes that personal value systems influence management decisions and the solutions to curious problems confronting the organization. McMurry (1963) attributes numerous organizational problems to the differences in the values between key organizational members. Similarly, Katz and Kahn (1978) identify "value consensus" as critical for leadership groups in an organization as a means for effective goal attainment within the organization. Conner and Becker (1979), in their theoretical analysis of values and organizational processes, suggest that value disparity is the fundamental factor contributing to organizational conflicts, accuracy of interorganizational communication, low group cohesion within the organization and poor intergroup cooperation.

The organizational significance of the police stress/strain phenomenon is yet to be fully explored. Terry III (1981), in his review of the police stress literature, concluded by noting the failure to consider job related behaviors within the stress/strain paradigm and the need for systematic research which would examine the effects of stress on job performance as measured by absenteeism, union grievances, citizen complaints and

automobile accidents and other organizational strain indices.

The limited anecdotal and conceptual literature on police stress has identified linkages between high levels of individual stress and numerous occupational behaviors that might lead to occupational strain. Included in these behaviors are various types of police malpractice, incompetence and other job performance problems. Daviss (1982), in his descriptive article on police "burnout" where he surveyed numerous large urban police departments, report dramatic increases in stress related disability claims, automobile accidents and other job related accidents. Included in this list of organizational problems is the large percentage of citizen complaints accounted for by a very small number of "burnt out" officers.

Predictably, the high volume of citizen complaints has led to significant increase in liability suits against the police. Krajick (1978) has noted that malpractice suits against the police have risen 446 percent between 1967 and 1971 and in one case actually resulted in the closing of a police department in New York state due to the loss in liability insurance coverage.

In view of these rather substantial problems, it seems timely to examine selected causal factors at the individual

level. Do values and value disparities act as stress leading to strain? Do individuals with high self-esteem suffer less from strain? Which individual level strains contribute to occupational strain? These questions form the interogative structure of the present study and provide focus for the subsequent research methodology.

Chapter V

Research Methodology

This research was conducted as a field study in a large west coast urban police department during the months of January through July, 1981. To accomplish the specific applied and theoretical aims of this study, namely to isolate selected causes of strain and test the utility of the P-E model of stress, a wide range of organizational, psychological, social and physical data were collected using three differing but comparable procedures. The total sworn police personnel within the department were invited and paid to participate in the study.

The police department that participated in this study is responsible for over 400,000 people who live in a 108 square mile area. Racially, the city is predominantly white with only 5-7% of the population listed as ethnic minorities. While there are no "intercity ghetto areas," there are sections in the city that experience relatively higher crime rates. Overall, in the last few years the crime rate has been increasing at a slow rate with the largest increases observed in the crime against persons categories.

The city's economic base is predominantly dependent upon the lumber industry supplemented by a few electronic firms and commerce generated by trade coming through the

municipally managed seaport. The developing national economic recession has negatively affected the area with state wide unemployment fluctuating between 9 and 11%.

The police department is organized as a traditional hierarchical structure which provides the full array of police services. The city is serviced by three police precincts and a general headquarters which include administrative, investigative and support personnel. The annual budget of the department is approximately 27 million dollars, of which almost 80% is consumed by personnel services. The police union is well established and enjoys the active support of a majority of police officers. Historically, the conflicts between the union and the police administration have been rather mild compared to other departments across the country, which may be accounted for by the fact that the police officers in the city are among the highest paid officers on the west coast.

This study was reviewed, critiqued and approved by key officials within the municipal government, police administration and the union. The willingness of the police department to participate in the research was a key determinant in the selection of this city for the study.

Participant Recruitment

Early in the design of the study, it was decided to include all sworn male patrol and supervisory officers in the police departments as potential participants in the research. It was believed that a survey of this population would provide a more accurate representation of the problem, causes, etc., of police stress and strain. Because of the importance of the problem under study, and the fact that officers were to be paid for their participation, it was believed that the participation rate would be high. Respondents were paid money at an overtime rate of one and one half their base pay for two hours testing time. This standard two hour rate was paid regardless of the actual time, more or less, each participant used to complete the questionnaire.

Police personnel were notified of the study and invited to participate through the official department newsletter, the union newspaper, written notification through the department mail system, the local news media, special signs posted in the various precincts and personal invitations at roll call and special meetings.

During the time that the study was conducted, there were approximately 590 sworn patrol and supervisory officers available to participate in the study. From this total population, 253 police officers responded, setting

the return rate at 43%. The following list is a breakdown of respondents by group within the department:

	Total	Respondents	Response Rate
Supervisors (Sergeant and above)	119	65	55%
Patrol Officers	471	188	40%
Total	590	253	43%

Testing Sessions

Two hour testing sessions were conducted at the end of each working shift for all sworn police personnel over a four month period. Testing rooms were chosen and located in the department's three precincts and headquarters building to minimize observation by others, to provide convenience and comfort, and to accommodate the testing procedures. Each room contained seating for approximately 25 participants, arranged to maximize privacy and confidentiality. Testing sessions, including make-up sessions, were scheduled to cover days off, vacations and other absences which may have influenced participation.

Three field researchers were selected on the basis of their understanding of field research techniques and their prior experience as police officers in west coast urban police departments. The field research supervisor was a former police officer and a researcher with an

understanding of the urban setting in which this research was conducted. The two field researchers were also police officers with research experience. One researcher was a sworn police officer on leave of absence from a nearby police department. The other researcher was a former police officer from a nearby department who also had prior research experience. It was reasoned and later confirmed that researchers with prior police experience would be most able to establish the rapport and confidence necessary to encourage a sense of trust among the potential participants in the study.

For those patrol officers and supervisors that attended a pre-shift roll call, the researchers attended roll call and presented a general overview of the research, procedure, compensation formula, confidentiality guarantees and potential practical implications of the data. These meetings were attended several times to account for routine and special absences of potential respondents. For those personnel that did not attend a formal pre-shift meeting, special meetings were scheduled to provide the information presented above. Again, those meetings were supplemented with personal invitations and the other notification procedures previously mentioned. Participants were requested to sign-up for scheduled sessions with the field researcher. The sign-up procedure

was designed to ensure confidentiality for the participants while guarding against an overrun of testing site capacity. Participants were also allowed to sign-up over a research office telephone or simply show up at a scheduled testing session. In no cases were respondents not allowed because of limited testing space.

Testing Procedures

The testing sessions began with a reading of a standardized set of instructions describing the testing procedure, and the statement of confidentiality guarantees (see appendix A). Time was allowed to answer any questions, sign, return and verify the signing of the confidentiality/release form.

The researcher then took two blood pressure readings on each participant, with a standardized rest period before and between the two tests. Upon completion of the blood pressure measurements, questionnaire packets with identifying numbers were passed out to each participant.

Specific instructions for completing each of the instruments were included at the beginning of each questionnaire (see appendix A). Upon completion of the self-report questionnaires, the instruments were collected, including an information sheet containing the necessary payroll information. Respondents were thanked

for their participation and advised that their paychecks would arrive in the mail within the month.

Mail-out Testing Procedure

To increase the response of the department personnel, the questionnaire packet with a written copy of general instructions was mailed to all sworn members of the police department. Only those who had not previously participated were requested to fill out and return the questionnaires. The department mailing list was kept secure by department personnel (clerks) who were employed to address and mail out the packets.

Specific date and times were arranged for participants to come to special testing rooms in the various police department buildings for blood pressure measurements, reading and signing of confidentiality/consent forms and collection of the packets. Again, the dates and times were scheduled to coincide with shift changes, days off and other absences. Participants were specifically instructed by notice in their packets to complete the questionnaires in a quiet, private room in their homes.

Department File Data Gathering Procedure

The majority of occupational strain data was collected from department records. Record clerks from

within the police department who normally had access to the relevant files were employed to gather the necessary data. To preserve confidentiality, the required data was gathered on all sworn members of the department, both participants and non-participants and forwarded to a neutral data analyst. The researcher then supplied a list of the participants' research numbers to the neutral analyst who, in turn, created a file of all department personnel (which did not identify participants in the study) for the conveninece and use of the police department. This data was then integrated with the other questions and physical fitness data to create the master file necessary for data analysis.

Research Instruments

Value Survey. To measure the role of values and value disparity as stress, Form D of the Rokeach Value Survey was used (see appendix A). The survey consists of a listing of 18 terminal and 18 instrumental values arranged in alphabetical order. The 18 terminal values were obtained from a much larger list compiled from a variety of sources including literature reviews, interviews with over 100 adults and Rokeach's own personal terminal values. From a pool of several hundred values a list of 18 mutually exclusive values was compiled from a variety of sources including literature reviews,

interviews with over 100 adults and Rokeach's own personal terminal values. The 18 instrumental values were derived from Anderson's (1968) list of 555 personality trait words for which he has reported positive and negative ratings. The values were selected according to several criterion including retaining only one from a group of synonyms or near-synonyms, by retaining those judged to be maximally different from or minimally intercorrelated with one another and retaining those judged to maximally discriminate across social status, sex, race, age, religion, politics, etc.

Form D (see appendix A), the most commonly used version of the survey, has the values printed on gum labels to allow the respondent to rearrange the ordering as often as desired. Attrition due to failure to complete the rankings is extremely low among college and school children--about one or two percent. Similarly, of a national area probability sample of 1,489 adult Americans tested by the National Opinion Research Center, only about five percent were unable to complete the survey primarily because of illiteracy (Rokeach, 1973). Completion time for the survey averages approximately 15 minutes.

Median test-retest reliability of both value systems (with time intervals ranging from three to seven weeks) ranges between .78 and .80 for terminal values and between

.70 and .72 for instrumental values (Penner, Kornant and Rokeach, 1968; Rokeach, 1973). For longer test-retest time intervals the reliabilities for college students are only slightly lower. For terminal values the median reliability is .76 after a two to four month interval and .69 after a 14 to 16 month interval. For the instrumental values, the comparable median reliabilities are .65 and .61.

The instrument has been tested for order effects, that is the possibility that the alphabetical order of presentation would effect the response. Analysis of Form D data from a national sample of adult Americans (N=1,409) showed no order effects (Cochrane and Rokeach, 1970; Rokeach, 1973).

The survey has also been tested for the effects of social desirability in responses on the terminal set of values. The resulting RHO correlation was only -.09 suggesting no significant relationship (Kelly, Silverman and Cochrane, 1972). The instrumental value set has yet to be tested on this dimension and therefore still remains an open question.

The Value Survey has been utilized widely for a variety of inquiries relative to attitudes, behavior, and life situations. These inquiries have spanned a variety of disciplines, including psychology, psychiatry,

sociology, anthropology, political science and education. In addition, the value survey has been utilized to assess value system similarities and differences between two persons, an individual and a group and perceived values of organizations. For a more detailed listing of uses, citations and applications of the value survey, see Milton Rokeach's The Nature of Human Values, Free Press, 1973.

Self-esteem. The Rosenberg self-esteem scale was used to index self-esteem. The scale consists of ten items and was originally constructed with four possible responses on each item. In this study two additional responses per item were added to provide a larger response range.

On a sample of high school students, the scale met the reproductability test for Guttman scaling registering .92 (Rosenberg, 1965). While the instrument was originally intended for high school students, it has also been usefully employed with college age subjects (Silber and Trippett, 1965) and adults in a community setting (Kaplan and Pokorny, 1969). Test-retest reliabilities of .85 over a two week period have been reported indicating the stability of the measure over time.

Data from several studies show the Rosenberg Scale to be correlated with a variety of strain measures as well as indices of behavior. For example, Rosenberg (1965) found

self-esteem scores to be associated with depression, interpersonal insecurity, anxiety and psychosomatic symptoms. Shrauger and Sorman (1977) report that the Rosenberg scale correlated with persistance during failure and Youngblood (1976) found it to correlate with academic achievement.

Individual Strain. Several self-report questionnaires and objective measures of physical fitness were employed to index individual strain. The instruments covered cognitive, affective, behavioral and physical dimensions of individual strain.

Cornell Medical Index: Originally designed by Brodman et al (1949) as a diagnostic tool for physicians, the CMI has been utilized in several ways, including surveys and epidemiological analysis. Primarily, the CMI has been useful as a comprehensive presentation of a person's physical and mental health. The instrument is a four page self-report survey consisting of 195 worded items. The subject simply answers "yes" or "no" to the items indicating the presence of illness symptoms and/or complaints. The items are arranged as 18 subscales (A through R) corresponding to a variety of physical and psychological symptoms. Sections A through L correspond to past illness and together produce an illness subscore. Similarly, sections M through R reflect psychological

symptoms and together produce a psychological illness score.

The CMI has been used to differentiate between degrees of emotional disturbance and the prediction of psychiatric and psychosomatic illness among new army recruits (Broadman et al 1952). CMI scores have also been reported as correlating to physicians' diagnosis of overall physical and mental health of the users of Jewish community centers (Abramson et al, 1965). Additionally, the CMI scores were correlated with couples who were experiencing "poor marital adjustment" (Hamilton et al, 1962).

Blood Pressure: A Labtronix sphygmomanometer was used by the field researchers. At the beginning of each testing session, two systolic and diastolic readings were recorded. Initially and periodically during the research, the instruments were calibrated by trained registered nurse using a standard blood pressure cuff and meter.

Anxiety: The Spielberger State Anxiety Inventory (STAI) was administered as a measure of anxiety. The STAI was originally developed as a research instrument for examining the anxiety in "normal adults." The instrument is comprised of two twenty item scales which measure two differing conceptualizations of anxiety. The A-state

scale refers to anxiety at a particular point in time and is viewed as a transitory condition.

Subjects respond to the scale items by selecting one of four possible responses. Scoring ranges from 20 to 80 on both scale. Some items are worded so that high score (4) equals high anxiety, while other items are worded so that a high score (4) corresponds to low anxiety. This variation is included to avoid the potential influence of an acquienscence set on the STAI responses.

On the A-state scale the test-retest score ranged from .16 to .54 with a median of .32. The low r's on this scale seem consistent with the conceptualization of state anxiety as a temporary or passing phenomenon (Spielberger et al, 1970). These reliability scores were obtained from undergraduate college students and represent time periods of one hour to 104 days (Spielberger et al, 1970).

The STAI has been correlated with other anxiety scales such as the IPAT Anxiety Scale .73 to .84 (Cattell and Scheier, 1963), the Taylor (1953) Manifest Anxiety Scale .79 to .83 and the Zuckerman (1960) Affect Adjective Checklist .52 to .58.

The STAI has also been successfully used in a variety of studies related to stress and strain. Taylor, Wheeler and Altman (1968) report significantly higher A-state scores for young sailors confined in isolation relative to

their length of stay and expectations for the project. Similarly, Lamb (1969), when investigating the effects of stress on undergraduates in a public speaking course, found higher heart rates and STAI scores before a speech with a return to normal immediately after the presentation.

Problem Drinking. The CAGE questionnaire, an alcoholism screening instrument, was used to measure covert problem drinking. The instrument consists of four items of a nonincriminating nature. This instrument is brief and easy to administer and compares favorably to the Michigan Alcoholism Screening Test (MAST) while being less intimidating. The instrument has been validated on 366 adults of which 39% had been independently defined as alcoholic. Correlations ranged from .69 to .89 (Mayfield, McLeod, and Hall, 1974). In addition to the CAGE, three separate self-report items were included to determine the frequency of accidents, damaged property and violence incurred by the respondent while drinking.

Family Well-being: To measure the individual's perception of his/her family life, the Family APGAR Questionnaire was given to each respondent. This instrument was developed by Dr. Gabriel Smilkstein as a diagnostic tool for physicians concerned with the

relationship between physical and mental health and family functioning.

The questions in the Family APGAR are designed to measure a family member's perceived satisfaction with each of five components of family functioning (see appendix). The respondent checks one of the three choices that are scored as follows: "almost always" (2 points), "some of the time" (1 point) or "hardly ever" (0 points). The scores on the five questions are totaled and interpreted as follows: a score of 8-10 suggests a highly functional family, a score of 4-7 suggests a moderately functional family and a score of 0-3 suggests a dysfunctional family.

Family Violence: In addition to the family functioning instrument, four questions were included to index the presence and magnitude of family violence reported by the respondents (see appendix A).

Occupational Strain

The majority of the occupational strain data was gathered from department records and files. Clerks within the department, who normally have access to this information, were trained and paid to gather the data.

On-Duty Automobile Accidents: The number of injury and non-injury automobile accidents totaled over a three year period of time, 1978-1980.

Citizen Complaints: The number of citizen complaints filed with the police department over a three year period of time, 1978-1980.

Occupational Alienation: To determine the degree of agreement and/or conflict between the respondents and the organization and its practices, four questions were assembled on a self-report "General Questionnaire" and included in the questionnaire packet. These questions included items on agreement with department policy and procedure (see appendix A).

Value Similarity/Disparity Index.

Each of the research packets contained two Rokeach Value Surveys. The standard survey instructions for the first of the two Rokeach Value Surveys were altered, requesting the participant to arrange the values according to their importance as guides in their own professional life. This change was accompanied by simply inserting the word "professional" before the word "life" in the first paragraph of the standard instructions. It was assumed that the participants in the study were capable and thus it was possible to employ a different set of values in their professional activities than those values employed in their personal life. This technique of altering the instructions has been used successfully by Rokeach et al (1980) in their study of personal and corporate value

identification (see appendix A for an exact reading of the instructions).

For the Second Value Survey, the instructions for completing the Rank ordering were varied for every third participant, requesting them to fill out the survey as they perceived the values of "the members of your working unit (peers)," "your immediate supervisor," or "the police department." (Again see Rokeach et al (1980) for successful application of this technique.)

To obtain an index of Value Disparity it was first necessary to transform both the Terminal and Instrumental value rankings on both surveys to Z scores corresponding to a division into 18 equal areas under the normal curve (Hayes, 1967 pg 35-39; Feather, 1972). The transformation was based on the assumption that differences between ranks at the extremes would be more discriminable than among those ranks in the middle of each scale. This assumption is supported by frequent observations of participants first ranking the top and bottom values then turning to the middle ranking to complete the survey. From the transformed ranked value scores on each of the two surveys it was possible to construct several measures of value disparity to examine "objective" and "perceived" Person-Environment value fit.

An Objective Value Disparity Model. The objective value disparity model consists of value comparisons between the participants value (Patrol and Supervisory officers) and three different groups commonly found among those people with whom the police interact, (1) their supervisors or subordinates depending upon the rank of the participant (Patrol and Supervisor, Supervisor and Patrol), and (2) their Peers within ranks (Supervisor - Supervisor, Patrol-Patrol). For each of the Participants the transformed value rankings of their first survey were correlated with the transformed rankings of the average value rank order of the respective comparison groups using Pearson's product moment correlation. The persons correlation co-efficient was used as the measure of value disparity. The following objective value disparity measures were calculated for each participant:

Police - Public Value Disparity - Normative value system data for three groups, "Hippies," Black Americans and White Americans were obtained and transformed to Z scores (Rokeach, 1973). It was reasoned that these groups are representative of commonly encountered public interactions by police within their working environment. A total of six value dispartity scores were calculated:

1. Police - Hippie Terminal Value Disparity
2. Police - Hippie Instrumental Value Disparity

3. Police - Black American Terminal & Value Disparity
4. Police - Black American Instrumental Value Disparity
5. Police - White American Terminal Value Disparity
6. Police - White American Instrumental Value Disparity

Police - Supervisors/Subordinate Value Disparity. Using the transformed value ranking data from the first value survey, the mean instrumental and terminal value ranks were calculated for the supervisors and for patrol officers separately across the department. For supervisors a value disparity score was calculated between each supervisor's instrumental and terminal value ranks and the average value ranking of all the patrol officers in the department (supervisor - subordinate value disparity). For each patrol officer a value disparity score was calculated between their instrumental and terminal value rankings and the average value rankings of all the supervisors in the department (patrol - supervisors value disparity). In this model each officer, supervisor and patrol officer had two value disparity scores (instrumental and terminal) reflecting actual value differences between their values and either their

supervisors or subordinates average values depending upon their rank:

1. supervisor subordinate department wide terminal value disparity,
2. supervisor - subordinate department wide instrumental value disparity.

Police - Peer Value Disparity. Again, using the transformed value rankings from the first value survey, the mean value rankings were computed for both supervisors and patrol officers across the department. For each officer two value disparity scores were computed between their value rankings and the average value ranking of those officers across the department who were their peers. For each supervisor a terminal and instrumental value disparity score was calculated between his values and the average value system of all supervisors in the department. The same calculations were performed between individual patrol officer's values and the average values of all patrol officers across the department:

1. Patrol/Supervisor - Department Patrol/Supervisor Terminal Value Disparity.
2. Patrol/Supervisor - Department Patrol/Supervisor Instrumental Value Disparity

A Perceived Value Disparity Model.

The perceived value disparity model consisted of value comparisons between police participant values and their perceptions (reported on a second value survey) of the perceived values of (1) the department as a whole, (2) the perceived values of their immediate supervisor and (3) the perceived values of their peers. For each of the participants the transferred values from their first value survey were correlated with the value rankings from their second survey. Using the Pearsons Product moment correlation again, the correlation co-efficient was used as a measure of value disparity. Depending upon the instructions for the second survey, each participant received two perceived value disparity scores (terminal and instrumental) from one of three comparison groups. Across both groups (supervisor and patrol officers) the following six "perceived" value disparity scores were calculated:

1. Patrol/Supervisor - Peer Terminal Value Disparity
2. Patrol/Supervisor - Peer Instrumental Value Disparity
3. Patrol/Supervisor - Supervisor Terminal Value Disparity
4. Patrol/Supervisor - Supervisor Instrumental Value Disparity

5. Patrol/Supervisor - Department Terminal Value Disparity
6. Patrol/Supervisor - Department Instrumental Value Disparity

Table 1 presents the average correlation co-efficients for patrol officers and supervisors which index both objective and perceived value similarly disparity. A high positive correlation would indicate high similarity of values between the officers' own values and the respective comparison group with similarity decreasing as the correlation co-efficient decreases and moves toward a negative correlation. Each participant had a total of twenty-four value disparity indices, involving both terminal and instrumental values within twelve distinct categories.

Data Analysis

The total sample was divided into two groups. Patrol officers and supervisors (Sergeants and above), and each of the three hypotheses were tested separately for each group. Prior to the actual testing of hypotheses, however, frequency distributions were calculated on each of the variables for both patrol officers and supervisors. The purpose for this calculation was twofold; first this analysis would demonstrate the general magnitude of Strain and Self-esteem within the two groups, and second, it

Table 1

Mean Scores and Standard Deviations of Objective and Perceived Value Disparity Among Police Supervisors and Patrol Officers

	Supervisors n = 65		Patrol Officers n = 188	
Value Disparity	Mean	S.D.	Mean	S.D.
Objective Value Disparity				
Police-Hippie Terminal	.18	.19	.13	.22
Police-Hippie Instrumental	.16	.24	.10	.23
Police-Black Terminal	.23	.22	.24	.22
Police-Black Instrumental	.21	.23	.24	.22
Police-White Terminal	.20	.25	.21	.26
Police-White Instrumental	.32	.20	.31	.21
Supervisor-Subordinate Terminal	.55	.19	.50	.21
Supervisor-Subordinate Instrumental	.52	.18	.51	.19
Police-Peer Terminal	.57	.19	.52	.19
Police-Peer Instrumental	.54	.16	.52	.18
Perceived Value Disparity				
Peer Terminal	.49	.26	.38	.36
Peer Instrumental	.41	.32	.38	.34
Supervisor Terminal	.50	.32	.39	.37
Supervisor Instrumental	.35	.22	.29	.35
Department Terminal	.25	.32	.11	.37
Department Instrumental	.20	.31	.29	.31

would allow for any data transformation necessary to meet the assumptions of normalcy and permit the use of parametric statistical analysis (Blalock, 1972).

The Self-esteem and the Cornell Medical Index score distributions were found to be highly skewed and were transformed using standard transformation procedures (Blalock, 1972). The Self-esteem scores were transformed by an exponentiation calculation and the CMI scores by a square root calculation to produce distributions that best approximated a normal frequency distribution. The mean scores and standard deviations for each Strain measure by group are presented in Tables 2 thru 5.

For both groups, Supervisors and Patrol, hypothesis one was tested with the following analytical procedure:

Hypothesis 1. The greater the Actual or Perceived Value Disparity between a Police officer and his peers, the community and/or Supervisors, the greater the Police officer's individual and occupational Strain.

This hypothesis was tested using multipal regression analysis. Multiple correlations between the Value Disparities Scores within the objective and perceived models and, the individual and organizational strain measures were computed. With one exception, high negative beta weights indicate a positive relationship between value disparity scores and the strain measures.

Table 2

Means and Standard Deviations for Individual Strain Among Police Supervisors, n = 65.

Strain	Mean	S.D.
CMI-Physical Health	11.8	6.5
CMI-Mental Health	2.1	3.5
State-Anxiety	32.4	8.8
Blood Pressure:		
Systolic	125.0	10.17
Diastolic	85.0	9.5
Problem Drinking #1	1.17	1.2
Problem Drinking #2	0.48	0.81

Table 3

Means and Standard Deviations for Occupational Strain Among Police Supervisors, n = 65.

Strain	Mean	S.D.
Family Well-Being	7.58	2.76
Family Violence	1.88	1.84
Child Violence	2.52	2.8
Occupational Alienation:		
Consistency of Working Style with Department Procedure	3.6	0.72
Agreement with Department Policy	3.7	0.68
Three-Year Sum of Citizen Complaints	0.73	1.1
Three-Year Sum of Automobile Accidents	0.32	0.58
Three-Year Sum of Sick Leave Days	66.0	115.1

Table 4

Means and Standard Deviations for Individual Strain Among Police Patrol Officers, n = 188.

Strain	Mean	S.D.
CMI-Physical Health	10.4	8.4
CMI-Mental Health	2.3	4.4
State-Anxiety	33.6	8.8
Blood Pressure:		
Systolic	120.8	12.6
Diastolic	79.9	10.2
Problem Drinking #1	1.08	1.2
Problem Drinking #2	0.60	0.91

Table 5

Means and Standard Deviations for Occupational Strain Among Police Patrol Officers, n = 188.

Strain	Mean	S.D.
Family Well-Being	7.9	2.5
Family Violence	1.7	1.6
Child Violence	3.6	3.9
Occupational Alienation:		
Consistency of Working Style with Department Procedure	3.4	0.71
Agreement with Department Policy	3.39	0.68
Three-Year Sum of Citizen Complaints	4.4	4.9
Three-Year Sum of Automobile Accidents	0.95	1.0
Three-Year Sum of Sick Leave Days	73.5	70.9

The family well-being measure was scored such that a high score is equivalent to better family well-being, so a high positive beta weight reflects a positive relationship between value disparity and Low family well-being.

The beta weights demonstrate the association between the value disparity score and strain measures while controlling for the effects of other value disparity measures.

The F ratio was used as the test of significance for the beta weights. A significance level of .05 was utilized as the critical value for the computed F.

Additionally, analysis was performed to determine the effect of each of the professional life values (instrumental and terminal) separately, on the measures of strain.

Multiple correlations between each of the instrumental/terminal values and the individual and organizational strain measures were computed. Positive beta weights indicates a positive association with the strain measures, again excepting family well-being. The F ratio was used as the test of significance with a .05 criteria value level.

Hypothesis 2. Given that higher value disparity acts as a stressor, the higher an individual's self-esteem, the lower the individual's strain.

This hypothesis was tested by first creating an interaction variable by calculating the product of self-esteem and value disparity. Using multiple regression analysis, multiple correlations between value disparity, self-esteem, their interaction and individual and occupational strain increases were computed. Again, with one exception, family well-being, high negative beta weights indicate a positive relationship between value disparity scores and the strain measures. The beta weights demonstrate the association between the interaction of variable and the strain measures while controlling for the effects of value disparity and self-esteem separately.

Again, the F ratio was employed as the test of significance for the beta weights. A significance level of .05 was used as the critical value for the computed F.

Self-esteem, as an independent predictor of individual and occupational strain was also tested with multiple regression analysis and Pearsons product moment correlation. Multiple correlation between value disparity measures, self-esteem, interaction of the two and strain measures were computed. Self-esteem, alone, was also correlated with the strain measures using Pearsons product moment correlation. The beta weights and simple correlation co-efficient between self-esteem and strain

demonstrate the association self-esteem and the strain measures. Positive beta weights a positive association with one exception, family well-being. Again, the F ratio at the .05 level was employed as the test of significance.

Hypothesis 3. The greater the amount of individual Strain, the greater the amount of occupational strain.

Pearsons product moment correlation co-efficient was computed to determine the association between individual and organizational strain. A positive co-efficient indicates a positive relationship between measures, again, with one exception. One tailed tests of significance for each co-efficient were obtained using the student's T with N-2 degress of freedom. The .05 significance level was used as the criteria for rejecting the null hypothesis.

Chapter VI

Results

The mean value systems of Hippies, Black Americans, White Americans, Police Supervisors and Patrol Officers are presented in table 27 through table 30 in appendix B.

Value Disparity as Stress

Hypotheses 1. The greater the actual or perceived value disparity between a police officer and his peers, the community and/or supervisors, the greater the police officer's individual and organizational strain.

The multiple regression beta weights, and F-ratio, testing objective and perceived value disparity as stress lending to strain were with few exceptions, low and insignificant at the .05 level. Additionally, the direction of influence of the value disparity measures were both positive and negative, indicating a randomization effect.

For those analyses where significant effects in the predicted direction are observed there is limited evidence of outcome patterns suggesting that value disparity may have a selective effect. Tables 6 and 7 presents those beta weights that are significant at the .05 level. Objective value disparity for supervisors and patrol officers is associated with the degree of disagreement

Table 6

Multiple Regression Beta Weights and F-Ratios of Significant Objective Value Disparity Measures and Measures of Individual/Occupational Strain Among Police Supervisors.

Objective Value Disparity	Strain
Police-Hippie Instrumental	Family well-being -0.39/4.2*
Supervisor-Supervisor Terminal	Violence while drinking -0.62/3.6*
Police-Hippie Instrumental	Disagreement with Department policies -0.31/6.0*
Supervisor-Supervisor Terminal	Disagreement with Department policies -0.32/4.2*
Supervisor-Subordinate Terminal	Disagreement with Department policies -0.34/5.0*
Peer Terminal	-0.51/6.0*
Supervisor Instrumental	Similarity of work style with Department procedure -0.54/6.0*

*Significant at the 0.05 level.

Table 7

Multiple Regression Beta Weights and F-Ratios of Significant Objective Value Disparity Measures and Measures of Individual/Occupational Strain Among Patrol Officers.

Objective Value Disparity	Strain
Police-White Instrumental	Violence while drinking -0.33/3.7*
Police-Black Instrumental	Child violence -0.45/5.8**
Police-White Instrumental	Disagreement with Department policy -0.23/10.6**

*Significant at the 0.05 level.

**Significant at the 0.01 level.

with department policies, violence while drinking and strain in the family. For supervisors, value disparity with hippies instrumental values and other supervisors (peers) are the most common predictors of family strain, disagreement with department policies and violence while drinking. For patrol officers value disparity with black and white instrumental values predicts violence while drinking, violence to children and disagreement with department policies.

Tables 8 and 9 presents those perceived value disparity measures that are associated with individual and organizational measures of strain. For supervisors, no clear pattern is apparent, only "similarity of work style with department procedures" appears twice, predicted by peer terminal and supervisor instrumental value disparity. For patrol officers, family strain is effected most frequently, with department terminal and instrumental value disparity both effecting violence to a spouse or living partner.

In spite of these few significant relationships between value disparity and measures of strain, the large number of insignificant findings supports the overall rejection of hypothesis one.

Table 8

Multiple Regression Beta Weights and F-Ratios of Significant Perceived Value Disparity Measures and Measures of Individual/Occupational Strain Among Patrol Officers.

Objective Value Disparity	Strain
Peer Instrumental	State-anxiety -0.36/4.0*
Supervisor Instrumental	-0.35/4.7*
Supervisor Terminal	Child violence -0.28/3.8*
Department Terminal	Spouse violence -0.37/7.7*
Department Instrumental	-0.11/4.1*

Table 9

Multiple Regression Beta Weights and F-Ratios of Significant Perceived Value Disparity Measures and Measures of Individual/Occupational Strain Among Police Supervisors.

Objective Value Disparity	Strain
Department Terminal Value Disparity	Diastolic blood pressure -0.50/5.5*
Peer Instrumental Value Disparity	Violence while drinking -0.59/4.4*
Supervisor Terminal Value Disparity	Sick leave -0.50/5.5*

*Significant at the 0.05 level.

Self-esteem as a Moderator of Stress and Strain.

Hypothesis 2. Given that higher value disparity acts as a stressor, the higher an individual self-esteem, the lower the individual and occupational strain.

For those significant or near significant value disparity/strain measures the interaction effects of self-esteem with value disparity on strain were tested. Table 10 through table 12 present the results of the multiple regression analysis for Hypothesis 2. The majority of the multiple correlations were not significant at the .05 level. The only interaction that was significant is self-esteem - police-hippie instrumental value disparity and disagreement with department policies, beta weight =-.47 and F-ratio 9.1, significant at less than the .01 level. Hypothesis two is not supported by the data and is rejected. However, as Table 10 through table 12 indicate, self-esteem, by itself, demonstrates a strong independent effect on strain suggesting the importance of further analysis.

Individual Strain as a predictor of occupational Strain

Hypothesis 3. The greater the amount of individual strain, the greater the amount of occupational strain.

Tables 13 through 16 present the correlation co-efficient between measures of individual level strain

Table 10
Multiple Regression Beta Weights and F-Ratios of Objective Value Disparity, Self-Esteem, Interaction of Self-Esteem with Objective Value Disparity and Occupational Alienation Among Police Supervisors, n = 65.

*Sig. 0.05 **Sig. 0.01	Organizational Alienation Disagreement with Department Policies Beta-Weights	F-Ratio	r	r^2
Objective Value Disparity				
Police-Hippie Terminal Value Disparity	-0.11	0.67	0.17	0.02
Police-Hippie Instrumental Value Disparity	-0.48	9.7**	0.44	0.20
Supervisor-Peer Instrumental Value Disparity	0.36	5.6*	0.53	0.28
Supervisor-Peer Terminal Value Disparity	-0.29	4.0*	0.60	0.36
Supervisor-Patrol Terminal Value Disparity	-0.18	1.1	0.66	0.43
Supervisor-Patrol Instrumental Value Disparity	0.29	3.0	0.72	0.51
Self-Esteem	-0.11	0.44	0.73	0.53
Interaction				
Police-Hippie Terminal Interaction	-0.15	0.80	0.75	0.56
S-E Police-Hippie Instrumental Interaction	-0.47	9.1**	0.81	0.65
S-E Supervisor-Peer Instrumental Interaction	-0.13	0.60	0.83	0.68
S-E Supervisor-Peer Terminal Interaction	-0.13	0.55	0.84	0.70
S-E Supervisor-Patrol Terminal Interaction	-0.18	1.1	0.85	0.72
S-E Supervisor-Patrol Instrumental Interaction	-0.03	0.37	0.89	0.79

Table 11

Multiple Regression Beta Weights and F-Ratios of Police-Public Value Disparity, Self-Esteem, Interaction of Self-Esteem with Value Disparity and Violence While Drinking in Patrol Officers, n = 188.

*Sig. 0.05 **Sig. 0.01	Violence While Drinking			
	Beta-Weights	F-Ratio	r	r^2
Police-Hippie Terminal Value Disparity	0.01	0.33	0.009	0.000
Police-Black Instrumental Value Disparity	0.34	3.2	0.02	0.000
Police-Black Terminal Value Disparity	0.07	0.13	0.04	0.002
Police-Hippie Instrumental Value Disparity	0.14	1.6	0.04	0.002
Police-White Instrumental Value Disparity	-0.33	3.7*	0.15	0.02
Police-White Terminal Value Disparity	-0.03	0.27	0.15	0.02
Self-Esteem	-0.17	5.2*	0.23	0.05
S-E White Terminal Interaction	0.14	2.4	0.24	0.05
S-E Black Instrumental Interaction	0.65	0.53	0.25	0.06
S-E Hippie Instrumental Interaction	-0.05	0.11	0.28	0.07
S-E Hippie Terminal Interaction	-0.41	0.88	0.28	0.08
S-E White Instrumental Interaction	-0.11	1.6	0.30	0.09
	-0.14	1.8	0.31	0.10

Table 12

Multiple Regression Beta Weights and F-Ratios of Perceived Value Disparity, Self-Esteem, Interaction of Self-Esteem with Perceived Value Disparity and Spouse Violence Among Patrol Officers, n = 188.

*Sig. 0.05 **Sig. 0.01	Spouse Violence Beta-Weights	F-Ratio	r	r^2
Perceived Supervisor Terminal Value Disparity	0.14	0.82	0.16	0.02
Perceived Supervisor Instrumental Value Disparity	0.05	0.72	0.17	0.03
Self-Esteem	-0.24	2.7	0.30	0.09
S-E Supervisor Terminal Value Disparity Interaction	0.12	0.21	0.30	0.09
S-E Supervisor Instrumental Value Disparity Interaction	0.14	0.56	0.30	0.09
Perceived Department Terminal Value Disparity	-0.37	7.7**	0.37	0.13
Perceived Department Instrumental Value Disparity	-0.11	0.55	0.38	0.14
Self-Esteem	-0.29	5.5**	0.47	0.22
S-E Department Terminal Value Disparity	0.80	1.3	0.50	0.25
S-E Department Instrumental Value Disparity	-0.35	0.18	0.50	0.25

and measures of occupational strain. For both groups the majority of correlations do not reach the .05 significance level; however, those correlations that are significant present a logical pattern which suggests that the result may not be due to chance.

Among patrol officers high anxiety was significantly correlated with high levels of organizational alienation, -.16 and -.15. Similarly, high levels of family disfunctioning and spouse violence were associated with a low agreement with department policies, .14 and -.17. Finally, frequent incidents of child violence was positively correlated with on duty automobile accidents, .15.

For police supervisors only systolic and diastolic blood pressure measures significantly correlated with occupational strain. Blood pressure measures were negatively correlated with agreement with department policies -.30 and -.29, positively correlated with citizen complaints .19 and .39, and positively correlated with automobile accidents .24 and .33.

Although only a few measures of individual strain were significantly associated with occupational strain, those significant results were in the predicted direction and demonstrate certain patterns which support acceptance of hypothesis 3.

Table 13

Degree of Association Between Individual Level Strain and Occupational Level Strain Among Patrol Officers, n = 188. (Pearson's Product Moment Correlation Coefficient)

	Occupational Alienation	
Individual Level Strain	Agreement with Department Policy	Consistency of Work Style with Department Procedure
CMI-Physical Health	-0.05	-0.02
CMI-Mental Health	-0.06	-0.05
State-Anxiety	-0.16*	-0.15*
Family Well-Being‡	0.14*	0.08
Spouse Violence	-0.17*	-0.11
Child Violence	-0.04	-0.04
Blood Pressure:		
Systolic	0.02	0.04
Diastolic	0.04	0.01
Alcohol Abuse	-0.0002	0.01
Violence While Drinking	-0.03	0.009

*Significant at 0.05 level.

‡Note a positive r -- low family well-being, low agreement with Department policies.

Table 14

Degree of Association Between Individual Level Strain and Occupational Level Strain Among Patrol Officers, n = 188. (Pearson's Product Moment Correlation Coefficient)

	Occupational Alienation	
Individual Level Strain	Citizen Complaints	Automobile Accidents
CMI-Physical Health	0.03	-0.11
CMI-Mental Health	-0.05	-0.02
State-Anxiety	0.08	-0.05
Family Well-Being	-0.06	0.02
Spouse Violence	0.07	0.01
Child Violence	0.02	0.15*
Blood Pressure:		
Systolic	0.03	-0.07
Diastolic	-0.009	-0.11
Alcohol Abuse	0.08	0.08
Violence While Drinking	0.01	-0.08

*Significant at the 0.05 level.

Table 15

Degree of Association Between Individual Level Strain and Occupational Level Strain Among Police Supervisors, n = 65. (Pearson's Product Moment Correlation Coefficient)

	Occupational Alienation	
Individual Level Strain	Agreement with Department Policy	Consistency of Work Style with Department Procedure
CMI-Physical Health	-0.04	-0.11
CMI-Mental health	-0.09	-0.14
State-Anxiety	-0.15	-0.09
Family Well-Being	-0.005	-0.06
Spouse Violence	0.11	-0.18
Child Violence	-0.14	-0.10
Blood Pressure:		
Systolic	-0.30**	-0.06
Diastolic	-0.29**	-0.13
Alcohol Abuse	0.08	0.01
Violence While Drinking	0.11	-0.15

**Significant at the 0.01 level.

Table 16

Degree of Association Between Individual Level Strain and Occupational Level Strain Among Police Supervisors, n = 65. (Pearson's Product Moment Correlation Coefficient)

	Occupational Alienation	
Individual Level Strain	Citizen Complaints	Automobile Accidents
CMI-Physical Health	0.08	0.09
CMI-Mental Health	0.11	0.03
State-Anxiety	0.04	-0.06
Family Well-Being	0.03	0.08
Spouse Violence	0.03	-0.02
Child Violence	-0.02	0.12
Blood Pressure:		
Systolic	0.19*	0.24*
Diastolic	0.39**	0.33**
Alcohol Abuse	0.11	-0.03
Violence While Drinking	-0.06	-0.10

*Significant at the 0.05 level.
**Significant at the 0.01 level.

Chapter VII

Discussion

Value Differences as Police Stress

The results of the analysis for hypothesis one, with few exceptions, does not support the belief that value disparity between the police and significant others in their working environment leads to strain. The belief that value disparity is, in fact, stressful and would lead to strain was based upon two central assumptions. First, that values as representations of preferable law enforcement goals and attitude would distinguish these operational, political and organizational conflicts that characterize the disagreements between the public and occupational groups that define the police environment. Second, it was assumed that the police as a professional group have a very low tolerance for group member value deviance, preferring those who conformed to the values that characterize the occupation. Value disparity, in effect, would threaten group loyalty and solidarity thus resulting in various forms of group sanction or rejection. To develop an understanding as to why value disparity, in this study, did not lead to strain it seems helpful to discuss the results in view of these primary assumptions.

Police - Public Value Disparity.

To learn that value differences between the police and the three public groups did not lead to strain is not surprising if one considers that the primary function of the police is the management of conflicts and maintenance of order between and with various people in the community. Police officers and the community expect the various forms of interactions, activities, and even disagreements that might characterize a routine working day for a police officer. The results in table 1 demonstrate that on the average there is low value similarity between the police and all three public groups. Yet these value differences may be tolerated, if not expected, given the role of the police and the fact that "the public" contains a diverse set of people including those individuals that require a police force. While very few people enjoy receiving a traffic ticket or being arrested, such actions are necessary, supported and even demanded by the need for public order. In fact, the vast majority of traffic tickets are given and received without incident and most arrests effected without conflict. The police and the public expect and tolerate these events.

In the present study, police-public value disparity was measured as the correlation between the professional values of police officers and the normative personal

values of the selected public groups. A more accurate measure of police-public value disparity as stress may be the similarity/disparity between police professional values and the professional values that the various public groups expect from police officers. One might reason that when police officers fail to perform in a manner consistent with public expectations, he or she would be more likely to experience frequent stressful encounters. Such encounters would likely result in frustration, anxiety, physical injury and numerous citizen complaints.

It is possible, however, that the outcomes of police-public encounters is most often determined by the particular nature of the law enforcement incident. Generalized measures of value disparity, like the one used in this study based upon group averages, fail to account for the particular value expectations and behaviors which may define specific stressful encounters. Thus particular values, while appropriate to one situation, would be inappropriate in others which also could be reflected in multiple sets of public expectations. While one situation may demand a more humanistic set of values, others may require a structured less flexible value profile. A more sensitive measure of value disparity may need to reflect those situations that are common to various police role activities and situations.

Finally, it seems reasonable to suggest that the average value systems of the three "public" groups may not represent the values of those individuals who have frequent confrontations with the police. In fact, the average hippie, black or white american may never or rarely come into direct contact with the police, much less have a stressful or violent encounter based upon value differences.

Thus, value agreement or disagreement between the police and the average value of these groups may fail to capture the true nature of the stressful police-public encounter. A more accurate reflection of police-public value disparity may be the correlation between professional police values and the values of these individuals within public group categories who have frequent contact with the police.

Inter and Intra Police Value Disparity.

The finding in the present study, that objective and perceived value differences within and between police subgroups did not contribute to strain, was surprising in light of the literature on the nature of the police occupational culture. The numerous accounts of conflict between police administrators and patrol officers, the high degree of solidarity among police officers, and the official and unofficial sanctions leveled upon

non-conformists suggests that value disparities would indeed lead to strain (Rubenstein, 1973; Westly, 1970; Daley, 1971; Maas, 1975). One interpretation of the results in this study is that perhaps the police may have a higher degree of tolerance for individual differences among police officers than originally believed and that only certain discrepancies are considered threatening, thus requiring group sanctions. A closer examination of the existing police literature seems to support this possibility.

Recent studies of police practices have demonstrated that different styles of law enforcement exist together within police departments, are tolerated, and even encouraged in specific circumstances. These differences involve both the overall goals of the police department (Wilson, 1968) as well as individual practices of particular patrol officers working in the community (Muir 1977; Reiss, 1973).

Others have noted that subgroups within the police can be differentiated on their attitudes and opinions on a variety of law enforcement and social issues (Watson and Sterling, 1969). For example, Corbett et al (1979), in their study of four medium sized midwestern cities, discovered a "substantial amount" of difference among the police perceptions of peer support and a minimal

indication of a need for group protection from outsiders. These findings seem to question the belief that police can be viewed as a homogenious group which emphasizes solidarity on all issues and demonstrates little tolerance for diversity.

Perhaps a more accurate view of the police would consider their relative degree of solidarity, similarity and tolerance for diversity in light of those situations that require a unified approach. Cartwright and Zander (1968), in their studies of group dynamics, have noted that relative degreees of uniformity and heterogenity are dependent upon various threats to group purposes (goals) and processes (means). Under conditions of low threat there is a higher tolerance for heterogenity among the group. From an insider's view, the police profession and its members, under routine circumstances, are marked by different organizational philosophies, political ideologies, working styles and preferences. A police officer is encouraged by fellow officers and in fact generally prefers to demonstrate independence, a sense of iindividuality and autonomy in their work and within the group. However, the sense of independence and the freedom to be "different" is bound by certain formal and informal limitations that are designed to preserve the police organization and subculture.

Under circumstances where an officer's unwillingness to conform to specific rules will contribute to threats to other members or the organization, serious sanctions can be imposed. For example, Westly's (1970) study of police violences, Mass (1975) and Daleys (1971) account of the famous "Serpico" incident demonstrate the rejection, sanctions and potential abuse that is utilized to insure adherance to the "code of silence." Similarly, official sanctions such as undesirable assignments, transfers, demotions, etc., are commonly reserved for those police officers who embarrass the department by failing to conform to department policies and thus contributing to public airings of police malpractice or incompetenance (Rubenstein, 1973).

In the present study, more accurate measures of inter and intra group value disparity as police stress may require the isolation of those values that are related to "critical" rules, norms, or issues within the police environment. A correlation of specific individual values with a specific set of "critical" police values might better reflect specific nature of value conflicts or stress.

Finally, an alternative explanation cf the results for hypothesis one might be found in the existence and nature of support groups for value discrepant officers.

Gerard (1954), in a set of laboratory studies, demonstrated that hetergenity of beliefs, opinions, values and behavior in groups were associated and sustained by membership in other groups that supported the alternative characteristics. It seems likely that officers who hold values that are different from general police group values may associate with subgroups within the department who share similar values. These value discrepant officers may also gain support from groups outside the police occupation who would embody and share the officers' values. Personal accounts from police officers suggest that non-police friends and groups play an important social support role in their lives and contrary to common belief, these friends and group involvements do not necessarily dissolve when an officer joins the police department. (See Personal accounts in reference section.) Involvement with outside groups most likely would mitigate the stress and nature of value disparities between individual officers and the values of the police organization.

The results of the analysis of hypothesis one, when taken together, seem to suggest that the underlying assumptions that support the stressful nature of value disparity may deserve closer examination, particularly in light of some of the existing police research. Such an

examination may suggest that differences in values, per se, are not necessarily stressful, but that differences between groups on key values specific to particular situations, groups and occupational issues provide a more accurate and precise measure of value disparity as stress. Additional results in the present study seemingly support this avenue of inquiry.

Self-esteem and Police Stress.

The results of the analysis for hypothesis two fails to support the belief that the interaction of self-esteem with value disparity effects the manifestation of strain. This result can be expected since value disparity did not act as a stress leading to strain. As table 10 through 12 demonstrate, however, self-esteem shows a strong independent effect upon several strain measures. Additional analysis, reported in Chapter VIII, was conducted to explore, further, self-esteem as an independent predictor.

Is Individual Level Strain Associated with Occupational Strain?

Intuitively, it seems obvious that health and personal problems among police employees should be evidenced in work related attitudes and behaviors. Less apparent, however, are the associations between specific

individual strains and particular occupational problems. Moreover, it seems reasonable to believe that these relationships might vary according to occupational group.

A review of the significant results demonstrates that among both police patrolmen and supervisors some measures of individual strain are significantly associated with particular measures of occupational strain. However, these specific associations varied between the groups. Among police supervisors only one set of individual level measures were significantly associated with occupational strain. Higher systolic and diastolic blood pressure measurements were associated with greater disagreement with organizational polices, higher numbers of citizen complaints and higher number of automobile accidents.

Among patrol officers, however, several individual strain measures were associated with occupational strain. Anxiety was associated with both measures of organizational alienation. Lower family well being and frequent incidents of domestic violence, both with the spouse and children, were associated with greater disagreement with department polices and automobile accidents. It should be noted that the correlational nature of analysis does not permit interpretations of causation. In this respect the data is limited. However, these findings do permit several important observations.

First, it is apparent that police supervisors and patrol officers vary in the nature of the associations between individual and organizational strain. This suggests that these groups may require stress control programs which are tailored specifically to their particular problems. For example, higher blood pressure among supervisors would be expected since blood pressure is known to increase with age and supervisors are known to be older than most rank and file officers. Thus, efforts to manage a blood pressure problem may require a special physical fitness and diet program which would reflect the age related requirements and limitations of this group. Such a program may vary drastically from stress control efforts for patrolmen which might focus upon developing and improving positive family relationships.

Additionally, these results seem to suggest that the supervisors as older, more experienced officers are more successful than the rank and file in keeping individual strains from effecting their job behavior and attitudes. Patrol officers, on the other hand, may yet to have developed either the skills or level of organizational commitment necessary to limit the effects of their personal difficulties.

Perhaps the most significant aspect of this data, however, is that it provides some evidence that particular

individual and occupational strains are not completely independent problems, unrelated to one another. While the bulk of research on police stress have focused upon the individual level effects, the present data suggests that the significance of the stress and strain problem might be extended to include selected occupational problems. In this regard those factors that have causal significance for individual officer strains may also have causal significance for occupational strain, an observation that is supported by other findings in this study. Similarly, the solutions to these problems may be relevant not only for individual officers, but also the organization. If, for example, stress control efforts for supervisors were successful in reducing high blood pressure, there may be a corresponding reduction in automobile accidents or citizen complaints. Of course, the inverse may also be true that efforts to control organizational strain might result in less individual strain. For example, efforts to alter organizational policies to reflect the views of supervisors may result in lower blood pressure for supervisors, and perhaps reduce the number of citizen complaints and/or automobile accidents. Data from previous studies support this view that organizational reform would, indeed, have a desirable effect upon both

the individual and occupational problems of the police (Terry, 1981; Warr and Wall, 1975).

The question remains, however, does specific individual strain cause or lead to particular occupational strain or is the inverse more accurate? As discussed earlier, the present analysis does not address this question directly; however, a review of the data reveals certain patterns which suggest a possible causal relationship. Among supervisors the three organizational strain measures associated with blood pressure were not associated with any other individual strain measures. While this observation does not establish blood pressure as a causal factor, it does suggest that it may lead to particular organizational strains, rather than the inverse. For patrol officers a similar observation cannot be made, since definite patterns are not apparent. Clearly, additional analysis is warranted and, although outside the limitations of the present study, can be accomplished with the existing data from this research.

Implications for the Person-Evnironment Fit Theory of Stress.

The failure of the value disparity measures to predict both individual and organizational strain raises questions about the utility of the person-environment fit theory of stress. As Harrison (1978) has noted, the

justification for the use of P-E measures depends on a demonstrated improvement in the prediction of strain over independent measures of P or E separately. The theory of person-environment fit rests on the assumption that the E and P component measures have meaning in relation to their interaction with one another and that the individual P or E measures have no independent effects on strain (Harrison, 1978).

The results in the present study clearly demonstrate that this is not the case with both self-esteem and specific values independently predicting strain, while the P-E measure, value disparity, failed to demonstrate effects (see Discussion in Chapter VIII). These findings are consistent with several other studies which have also demonstrated the superiority of independent measures of E (environment) and P (person) as predictors of strain (Caplan et al, 1975; Harrison 1976; House, 1972; Kurlka, 1975; Argyris, 1960; Wilensky, 1964). Additionally, the majority of police stress research, as previously discussed, has demonstrated the role of occupational and organizational factors (E measures) in various stress related problems. Together the findings from these studies, including the present research, when compared to those studies offering data supporting the P-E formulation, suggests only limited support for the theory

(Kasl, 1978). This is not to suggest, however, that the P-E theory of stress should be abandoned; rather one might consider additional conceptualization and refinement of the basic theory. For example, it may be necessary to identify measurement dimensions that have meaning for both the individual and the organization. One might argue that the values world of beauty and clean while relevant to an individual police officer may have little relevance to a police organization or be the basis for conflict within the police environment. Pervin (1976) has suggested such an approach which identifies and uses only those dimensions relevent to both the individual and the organization. It may be necessary to refine the P-E theory to incorporate more specific conceptual dimensions beyond simply "person" and "environment."

Additionally, the P-E theory assumes that discrepancy leads to strain while similarity will prove beneficial to the individual. Several authors have noted that this is not always the case, that a perfect fit may result in boredom or understimulation and also produce strain (Harrison, 1978; Feather, 1975; Kulka, 1975). The results from the present study also suggest that this possibility might be a useful point of modification of the basic theory. The findings that both value disparity and similarity may contribute to strain, while perhaps due to

chance, seem to support additional inquiry into an "understimulation" thesis. Is it possible, for example, that small levels of value discrepancies actually serve as challenges providing the stimulation necessary to avoid strain? Under what conditions is congruity or mismatch between the individual and the environment stressful? Seemingly, the P-E theory of stress may need to be modified to account for these questions. The importance of this modification may be found in the discovery of tolerance norms of P-E similarity and/or differences which are specific to selected groups and occupations. Alternatively, it may be possible that only with selected measures or conceptualizations of P-E fit will there be a continuum of similarity-disparity that produces strain. For example, it seems likely that on particular measures of objective P-E fit that mismatch may always lead to strain while on subjective measures there may be more variance among individuals and/or particular groups.

Finally, the P-E theory of stress has assumed that the negative consequences of a poor fit are confined exclusively to individual level outcomes. Conspiciously absent has been the consideration of stress effects or strain upon the "environment." Such a limited view is seemingly inconsistent with the interactionist approach which assumes an interdependence between the individual

and the environment. Lazarus (1966) has noted that such an "ecological" approach would be useful to a more complete understanding of the stress/strain problem. Among the limited but significant results in the present study there is an indication that value disparity did contribute to occupational strain, suggesting that additional refinement of the P-E theory may include organizational conceptualizations of strain as an outcome of poor P-E fit.

Chapter VIII

Individual Values and Self-esteem as Independent Predictors of Strain.

High Stress - Low Stress Police Values.

A review of the significant results among both police groups for hypothesis one reveals that of the 42 significant findings, 21 demonstrated positive associations with measures of strain. These findings were not in the predicted direction and indicate that value similarity as well as value disparity may be stressful leading to strain. In particular, police - public value similarity between seem to contribute to strain. Of the 18 significant findings, 12 were positively associated with strain. This suggests that police officers who have values that are similar to the various public groups experience more strain. One explanation, of course, is that the police, as a group, pressure or sanction those officers who demonstrate their similarities to outsiders or "the public." Indeed, much has been written about the "us vs. them" police mentality where the public is viewed as the "enemy" and those who are with "them" are against "us" (Goldstein, 1977; Reiss, 1971; Fogelson, 1977; Murphy, 1977). Similarly, the friction between black and white police officers, educated vs. non-educated police,

and men vs. women police suggest that those officers who choose to retain or adopt more "public like" values may experience more pressure and harassment than those who conform to traditional police values.

This explanation, however, seems somewhat inadequate for interpreting the intra and inter police value disparity/similarity results. Of the 24 significant findings, 9 were in the positive direction indicating that value similarity among the police may be stressful and lead to strain. These findings, when combined with the police-public results, suggest the possibility that specific values and their associated meanings and behaviors may be more stressful than other values and thus contribute to strain. Additional analysis suggests that this is in fact the case.

To explore the role of each of the human values contained in the Rokeach value survey on strain, additional multiple regression analysis was performed.

The beta weights and F-ratio between the instrumental/terminal values and measures of strain are presented in table 31 through table 38 (see appendix C). The results confirm the belief that particular professional life values are significantly associated with measure of individual and occupational strain for both supervisors and patrol officers. Table 17 presents those

Table 17

High and Low Strain Professional Values Among Supervisors and Patrol Officers.

Supervisors, n = 65		Patrol Officers, n = 188	
High Strain	Low Strain	High Strain	Low Strain
Courageous	Imaginative	Courageous	Imaginative
Comfortable Life	Freedom	Exciting Life	Broadminded
Pleasure	Responsible	True Friendship	Polite
Happiness	Honest	Inner Harmony	Helpful
Loving		Loving	
Forgiving			
Equality			
Helpful			

values that were strongly associated with one or more strain measures reflecting high and low strain. While several values are associated with strain, two values, in particular, seem to distinguish high and low strain officers in both groups. Patrol officers who place a higher priority on being imaginative experience less CMI mental health problems -.17, F-ratio 5.4 (.02), less anxiety -.15, F-ratio 4.0 (.04), and fewer violent incidents while drinking -.14 F-ratio 3.3 (.06). Among police supervisors, those who give imaginative a high ranking experience better family well-being .24 F-ratio 3.7 (0.5), and less incidents of violence with their children -.23 F-ratio 4.4 (.03).

The value courageous is also associated with several measures of strain and is common to both groups as the value which distinguishes high strain officers. The patrol officers who place a high priority on being courageous are more likely to be violent with their children .19 F-ratio 7.6 (.006), have problems with alcohol abuse .21 F-ratio 8.2 (005), receive more citizen complaints .19 F-ratio 6.9 (.009) and be involved in an on duty automobile accident .23 F-ratio 10.4 (.001). Among police supervisors, a high ranking of courageous was most

associated with high incidents of violence to their children .25 F-ratio 4.4 (.03).

It is important to note that every measure of strain was significantly associated with values from the Rokeach value survey. However, only the values imaginative and courageous were common to both groups on at least one measure of strain.

A High and Low Stress/Strain Value Profile.

As the results of the regression analysis indicate, in addition to the values courageous and imaginative, several other values are also significantly related to various measures of strain. These findings raise the question of the existence of value clusters which might, together, form a high and low stress/strain value profile. To test this possibility, those values that were both significantly and strongly correlated to measures of strain were selected for further analysis. Using Pearsons product moment correlation, intercorrelations between the selected values were conducted to determine the degree of relatedness among the values. Table 18 through 22 present the results of this analysis.

For supervisors, generally speaking, a high emphasis upon social values such as being forgiving, helpful, loving, and caring about equality seem to negatively effect their mental and physical health, and also

contribute to more automobile accidents. As table 18 demonstrates, these four values are intercorrelated with at least one other value among this group. Equality is related to forgiving and helpful, while loving is correlated with forgiving. These significant intercorrelations seemingly support the belief that a social value profile emphasizing these values among supervisors can lead to various types of strain.

This suggests that those supervisors who adopt a more social value approach in their management activities may do so at greater personal cost. In many respects this finding, while perhaps bothersome, could be expected in light of the organizational structure of most police departments. As a paramilitary, hierarchly structured environment there are few incentives to employ a humanistic management style. Rigid, highly structured approaches consistent with policy and procedure serve to confirm the underlying assumption in police management that subordinates are to be commanded, directed and ultimately ordered to comply. There seems to be little support for a management style that includes forgiveness, or emphasizes loving treatment of subordinates. These facts of police management are well established, and while some change seems evident, the paramilitary view persists (Reiser, 1974; Munro, 1974; Murphy, 1977; Daley, 1971;

Table 18

Intercorrelations Between High Strain Social Values Among Supervisors, n = 65.

	Loving	Forgiving	Equality	Helpful
Loving	---	0.27 (0.03)	0.04 (0.75)	0.06 (0.61)
Forgiving		---	0.36 (0.004)	0.10 (0.40)
Equality			---	0.36 (0.004)
Helpful				---

Daviss, 1978; Fogelson, 1977; Reppetto, 1978; Walker, 1977).

This is not to suggest, however, that those values that are consistent with the paramilitary management model are less stresful. As previously discussed, those supervisors who place a high value on being courageous experience numerous strain problems. Similarly, those supervisors who are guided by the need for a sense of accomplishment in their work suffer from lower family well-being and greater incidents of domestic violence with their spouse. It is important to note, however, that intercorrelation analysis between these two values were not significant, indicating that these values are acting independently of each other and do not represent a high strain value profile.

Supervisors who place a greater emphasis upon personal values such as pleasure, a comfortable life and happiness have demonstrated more problems with alcohol. Again, as table 19 demonstrates, the three values are intercorrelated with at least one other value among this group. Pleasure is significantly correlated with both a comfortable life and happiness. Happiness and a comfortable life are not, however, interrelated. These findings yield tentative support for viewing these three values as a value profile. The key value among this

Table 19

Intercorrelations Between High Personal Strain Values Among Supervisors, n = 65.

	Courageous	Comfortable Life	Pleasure	Happiness
Courageous	---	0.03 (0.77)	0.05 (0.67)	-0.02 (0.86)
Comfortable Life		---	0.31 (0.01)	0.03 (0.79)
Pleasure			---	0.46 (0.001)
Happiness				---

Table 20

Intercorrelations Between High Strain Values Among Patrol Officers, n = 188.

	Courageous	Exciting Life	True Friendship	Inner Harmony	Loving
Courageous	---	0.08 (0.23)	0.11 (0.11)	0.01 9).79)	-0.03 (0.68)
Exciting Life		---	0.10 (0.14)	-0.16 (0.02)	-0.34 (0.001)
True Friendship			---	0.16 (0.03)	0.18 (0.01)
Inner Harmony				---	0.11 (0.12)
Loving					---

cluster is pleasure which, again, seems to underscore the "Personal" nature of the value profile.

When taken together, the value profile analysis suggests that those supervisors who fail to find the middle ground between social values and personal values, while opting for the classical authoritarian approach, may experience the many strains that seem to characterize the police profession. It is important to note, however, that this conclusion is tentative, based upon the limited empirical findings. Further analysis using a factorial design or a cluster type analysis is required before firm conclusions can be made about the existence of a stress/strain profile among supervisors.

For patrol officers, in addition to the previously discussed value, courageous, four additional values were identified as stressful values which together would form a high stress value profile. Those officers who place an emphasis upon leading an exciting professional life and/or valuing true friendship in their work manifest higher levels of anxiety, domestic violence, alcohol abuse, citizen complaints, and on duty automobile accidents. Those officers who place a high emphasis upon being loving and/or achieving inner harmony experience poor mental health, lower family well-being, and poor physical health.

Additional analysis was conducted to, again, explore the possibility that these values were acting together to form a value profile of high strain officers. As table 20 demonstrates, however, there are relatively few significant intercorrelations suggesting that, for the most part, these values are acting independently from one another.

These findings suggest that to the extent that patrol officers are guided by any one of these values, independently or together, they may experience various specific types of strain. Although there is little empirical evidence supporting the existences of a high strain value profile among patrol officers, it is difficult to ignore the conceptual similarities among these values. Being courageous, leading an exciting professional life and valuing true friendships are well documented characteristics of the "John Wayne" approach to law enforcement which emphasizes the "rough, tough cowboy image" (Monroe-Cook, 1975; Reiser, 1974; Goldstein, 1977). The findings in the present study lend support to the belief that such an approach to law enforcement may be personally stressful for patrol officers and moreover, may also be evidenced as various forms of occupational strain.

Additionally, the finding that a high emphasis upon true friendships leads to strain suggests that the strong

group loyalty that characterizes the police subculture may involve dynamics that are stressful. As such, the assertion by Reiser (1974) that the police subculture may protect the officer from stress and strain seems questionable to the extent that group support is contingent upon officers emphasizing their friendship with group members.

In contrast to the rather flamboyant high strain values, softer more sensitive values also seem to lead to strain among patrol officers. The findings in the present study support the view that police officers who are guided by selected sensitive values may be more vulnerable to the tragedies, death and suffering that can characterize police work. Moreover, the highly inconsistent and fragmented nature of the police role makes it difficult for officers to develop a sense of inner balance.

Those officers who prefer a high degree of inner harmony would seemingly experience greater difficulties in managing the conflicting expectations and demands upon the police. Again, like supervisors, high strain patrol officers hold values that are on the extreme end of a "macho"-sensitive continuum. Those values that seem to characterize low strain officers lends support to this observation.

Low Stress/Strain Value Profile.

In addition to the value imaginative, additional values were identified as predictors of low strain among supervisors. Those who placed a higher priority upon having freedom in their work, experience better mental health and fewer on duty automobile accidents. These findings lend support to an emerging belief that some police administrators will experience less strain if they can utilize a more flexible and independent approach in their work (Reisser, 1974; Murphy, 1977). Such approaches as team policing, where freedom to implement innovative flexible law enforcement strategies are encouraged, provide alternatives to the traditional paramilitary model, and seemingly embodies those values related to less strain. Further results suggest that these more flexible values, imaginative and freedom, may be balanced by values which seem to provide the accountability required to ensure effective management practices while contributing to lower levels of strain. Those supervisors who place an emphasis upon being responsible in their work, experience better mental health, while those who value honesty report less anxiety.

The four values that represent low strain police supervisors, suggest an optinum balance between flexibility and accountability that avoids the extremes on

a rigidity-sensitivity value continuum. Further analysis to determine if the four values were interrelated failed to demonstrate significant intercorrelation. As the results on table 21 suggest, the four values, imaginative, freedom, responsible and honest are not interrelated but act independently as predictors of low strain.

Among patrol officers, however, the existence of an interrelated value profile seems to be supported by additional findings. In addition to the value imaginative, officers who emphasize being broadminded, polite or helpful experience less anxiety, lower blood pressure, better physical health and fewer citizen complaints.

As the results from table 22 demonstrate, the three additional values are significantly related to imaginative but are not associated with one another. These findings provide tentative support for a low strain value profile among patrol officers. Again, the value imaginative appears central to an overall low strain syndrome.

When the low strain values of supervisors and patrol officers are taken together, it is clear that the values are conceptually consistent and seemingly compatible. It seems reasonable to suggest that a cohesiveness between supervisors and patrol officers on "low strain" values may

Table 21

Intercorrelations Between Low Strain Values Among Supervisors, n = 65.

	Imaginative	Freedom	Responsible	Honest
Imaginative	---	0.02 (0.84)	-0.11 (0.35)	-0.04 (0.71)
Freedom		---	0.18 (0.16)	0.14 (0.26)
Responsible			---	0.06 (0.63)
Honest				---

Two-tailed test of significance

Pearson's r

Table 22

Intercorrelations Between Low Strain Values Among Patrol Officers, n = 188.

	Imaginative	Broadminded	Polite	Helpful
Imaginative	---	0.14 (0.05)	0.31 (0.001)	0.17 (0.01)
Broadminded		---	0.04 (0.55)	0.02 (0.74)
Polite			---	0.03 (0.69)
Helpful				---

Two-tailed test of significance

Pearson's r

be possible in the interest of less individual and occupational strain for both groups.

Self-esteem as an Independent Predictor of Strain.

To determine the independent effects of self-esteem on measures of strain, additional analysis was conducted.

The Pearson product moment correlations and two tailed T tests of significance levels between self-esteem and individual/occupational strain are presented in table 23 through table 26. For supervisors, significant negative correlations were obtained in only two of the ten individual strain measures. However, both of the significant outcomes were positively associated with measures of mental/emotional health. Self-esteem is negatively correlated with CMI mental health, -.39 at the .001 level and with state anxiety, -.35 at the .002 level. Six of the remaining eight measures are in a logical direction but fail to reach the .05 significance level. Among supervisors, only one of the five occupational strain measures was significantly associated, in a positive direction, with self-esteem. High self-esteem is positively associated with consistency of work style with department policy, .25 at the .02 significant level.

For patrol officers, table 23 and table 25, none of the occupational strain measures were significantly associated with self-esteem. However, seven of the ten

Table 23

Pearson's Product-Moment Correlation Coefficient Between Self-Esteem and Measures of Individual Level Strain Among Patrol Officers, n = 188.

	CMI-Phys. Health	CMI-Ment. Health	State-Anxiety	Family Well-Being	Spouse Vio.	Child Vio.	Blood Pressure Syst.	Blood Pressure Diast.	Alcohol Abuse	Violence wh. Drinking
Pearson's r	-0.31	-0.48	-0.58	0.35*	-0.20	0.10	0.09	0.01	-0.34	-0.17
Significance Level	0.001	0.001	0.001	0.001	0.003	0.07	0.10	0.42	0.001	0.01

*Positive r -- high self-esteem/low family well-being.

Table 24

Pearson's Product-Moment Correlation Coefficient Between Self-Esteem and Measures of Individual Level Strain Among Police Supervisors, n = 65.

	CMI-Phys. Health	CMI-Ment. Health	State-Anxiety	Family Well-Being	Spouse Vio.	Child Vio.	Blood Pressure Syst.	Blood Pressure Diast.	Alcohol Abuse	Violence wh. Drinking
Pearson's r	-0.09	-0.39	-0.35	0.13*	-0.13	-0.06	0.09	0.10	-0.05	-0.15
Significance Level	0.21	0.001	0.002	0.145	0.139	0.294	0.23	0.20	0.33	0.10

*Positive r -- high self-esteem/low family well-being.

Table 25

Pearson's Product-Moment Correlation Coefficient Between Self-Esteem and Measures of Occupational Level Strain among Patrol Officers, n = 188.

	Occupational Alienation Agreement with Dept. Policies	Consistency of Work Style Dept. Proced.	Citizen Complaints	Sick Leave	Automobile Accidents
Pearson's r	0.10	0.009	0.04	-0.01	0.08
Significance Level	0.08	0.44	0.28	0.39	0.12

Table 26

Pearson's Product-Moment Correlation Coefficient Between Self-Esteem and Measures of Occupational Level Strain among Police Supervisors, n = 65.

	Occupational Alienation Agreement with Dept. Policies	Consistency of Work Style Dept. Proced.	Citizen Complaints	Sick Leave	Automobile Accidents
Pearson's r	0.10	0.25	0.05	0.04	0.10
Significance Level	0.21	0.02	0.32	0.37	0.21

individual strain measures were significantly associated in the positive direction at or below the .05 significant level. The Pearsons r -.48 and -.58 demonstrate the highest association between self-esteem and CMI anxiety and mental health, followed by family well-being .35, alcohol abuse -.31, and CMI physical health -.31, all at the .001 significant level. Additionally, spouse violence -.20 and violence while drinking -.17 were significant at the .01 level.

The data indicate that self-esteem is not assoicated with occupational strain in both groups. However, for individual level strain, particularly for patrol officers, self-esteem was significantly associated in a positive direction with seven out of ten strain measures. For police supervisors, eight of the ten individual measures were positively associated with self-esteem; however, only two of the ten measures were significant at the .05 level.

The finding that self-esteem, when examined as an independent predictor of strain, demonstrated the expected outcomes supports the belief that high self-esteem people experience less strain. The relative lower number of significant associations among supervisors suggests that self-esteem may be less of a factor for the older,

professionally successful officer and more important for the patrol officer.

The data seems to support this observation for patrol officers who demonstrated seven out of ten significant associations between self-esteem and measures of individual strain. Family problems, alcohol abuse and poor physical/mental health are immediate problems that not only occupy the attention of the individual but together serve as indicators of individual well-being and competence.

It is surprising, however, that for both groups self-esteem was not associated with occupational strain. This seems to suggest that levels of self-esteem may be confined to selected individual strain problems and that officers may attempt to separate their personal needs and sense of worth from particular job related activities. This observation is consistent with other writings and research which has noted the role of depersonalization as an occupational characteristic and defense mechanism for police (Harris, 1973; Muir, 1977). However, this is not to suggest that self-esteem does not effect work performance or that particular work events do not impact self-esteem. In most cases the interrelationship between these two factors may depend upon the definition of a good police officer, appropriate police behavior and the

reference group to which the officer belongs (Stotland and Canon, 1972; Webster and Sobieszek, 1974; Coopersmith, 1967). For both supervisors and patrol officers in many departments, citizen complaints or automobile accidents are not necessarily the standards by which they are judged to be good police officers and may have little relationship to their self-esteem. It is commonly recognized that patrol officers, in particular, are most concerned with acceptance by their peers around standards that emphasize loyalty, secrecy, physical prowess, fearlessness, competence and emotional restraint.

Organizational policy and procedure or supervisory acceptance are frequently considered to be less important to patrol officers as standards for judging the "good officer" (Reiss, 1971; Miur, 1977; Rubenstein, 1973). Among supervisors, however, organizational standards are key factors in determining promotion and the definition of a good supervisor or administrator. The finding in the present study that self-esteem was positively associated with consistency of working style with department procedure supports this observation. One might expect that supervisors would have a greater commitment to organizational standards which adequately reflect supervisory and administrative role requirements. Again, effective citizen interactions and automobile accidents

may comprise only a small portion of the supervisory requirements and are relatively less important than other performance evaluation criteria.

Although police officers may be able to detach their sense of self-worth from certain job activities and problems, it seems that problems of various individual strains would effect organizational performance. The results from Hypothesis 3 seems to support this belief.

It is important, at this point in the discussion, to sound a cautionary note. Post Hoc analysis of the type presented and discussed in this chapter are vulnerable to the argument that observed significant findings are really accidental and can be accounted for by mere chance. At first glance this argument tends to have merit when applied to the value-strain related findings. Using the 95% confidence level, one might argue, for example, that with a total of 36 values and 14 measures of individual and occupational strain that approximately 25 of the possible 504 associations would occur by chance alone. As Harrison (1978) has noted, however, in cases of multiple comparisons, the overall pattern of results across several relationships "provides useful information" concerning the ability of variables to account for measures of strain. In these particular situations of multiple comparisons, the extent to which the observed relationships hang

together empirically and conceptually, permits one to argue against the "chance finding" thesis. In the present study, as previously discussed and demonstrated, there is partial empirical and conceptual evidence that such patterns exist, and thus the observed significant association between certain values and measures of strain cannot be accounted for by chance alone.

In the case of self-esteem and the measure of individual strain the observed associations seem less vulnerable to the "chance finding" argument. Using a 95% confidence level, of the 10 possible associations one can expect ONE to occur by chance alone. Again, at first glance the chance thesis seems to apply to police supervisors where only two out of the ten measures were significantly associated with strain in the positive direction. However, both of these significant findings were with the measure of mental/emotional health. Moreover, of the remaining eight associations, four were positively associated with measures of strain. Among patrol officers, the seven out of ten significant associations in the positive direction is well above the three associations expected by chance.

In spite of existing empirical and conceptual patterns among these post hoc findings, the conclusion drawn from these results should be considered tentative at

best. Clearly, it seems useful to suggest that future research should be directed at replication and expansion of these findings. This type of future research seems particularly necessary and promising in view of the practical implications of the results presented in this chapter.

Chapter IX

Managing Stress and Controlling Strain - Practical Applications for the Police

It is important, at this point, to consider the practical meaning and applications of the findings in this study. It has been frequently noted that the failure to link available knowledge with organizational practice has contributed to the "relative unsophistication" of police personnel and administrative activities (Clark, 1971; Lefkowitz, 1977). The results in the present study seem immediately relevant to at least two important areas of police management, personnel decision making and stress management. In both areas, self-esteem and human value analysis suggest useful practical techniques and procedures which, in the long run, may result in both healthier police officers and more efficient police organizations.

Personnel Selection.

Traditionally, police personnel management has primarily been concerned with selection of new recruits around a relative ambigious and often questionable set of criteria (Lefkowitz, 1977). Screening procedures have often been aimed at identifying the applicant that would fit into a pre-existing set of occupational values and

criteria designed to perpetuate long standing views of the "good police Officer" (Gray, 1975; Rokeach, Miller and Snyder, 1971). Yet several authors have noted that these selection criteria and screening processes have yet to prove effective in controlling for the problems believed to be linked to effective selection, attention, incompetence and other problems confronting the police profession (Lefkowitz, 1977; Smith and Stotland, 1973). In part, the failure of existing screening tests and procedures may be linked to inappropriate assumptions concerning the desirable police officer and what factors may actually contribute to effective selection. Indeed it is surprising, given the rigorous selection process, that within a short period of time police officers exhibit the various signs of strain.

Presumably, given the severity and magnitude of the police stress problem (Terry, 1981), selection criteria should reflect attempts to minimize the effects of stress on both employees and the police organization. To date, there exists little evidence that such concerns are directly reflected in the selection process.

The results of the present study indeed suggest that perhaps traditional criteria for selecting officers, such as peer group loyalty, willingness to conform to the military management model, toughness, and the ability to

reflect prescribed procedures (Gray, 1975), may be counter productive. The present study has demonstrated that high self-esteem and the values imaginative and broadminded are individual attributes that would identify the low strain police officers. Yet such attributes are not necessarily encouraged by the existing paramilitary structure in most police departments and rarely are reflected as selection criteria. Rather, officers are more apt to be selected on the basis of their courage and ability to establish professional friendships, two values that the present study has demonstrated to cause high strain among police personnel.

The importance of this "selection paradox" is underscored by the additional finding in this study that the problems of police strain extend beyond exclusively individual problems but also effect organizational behavior. Together, these findings seem to suggest the need for a reexamination and perhaps modification of the selection cirteria for desirable police personnel. Self-esteem and value analysis seem useful as tools for such a process.

Value Analysis and Police Promotion.

To the extent that the manifestation and management of stress and strain represents evaluative criteria for selecting and promoting supervisors, the present study

provides evidence that value analysis may be useful. Historically, supervisors have been selected on the basis of their past performance as police officers (Repetto, 1978), ability to memorize and feedback textbook responses to exam questions (Goldstein, 1977), length of time in the department and other, often limited criteria. Goldstein (1977) has noted that frequently the criteria used for selection of new supervisors have failed to assess future performance and most often neglect to consider many of the human factors critical to the supervision of other people. The results of the present study suggest that indeed the values necessary for a relatively strain free supervisor are distinctly different from those of the strain free patrol officer. Moreover, these values seemingly reflect a balance between rigidity and sensitivity which seems relevant not only to issues of stress and strain but also relevant to effective task and socio-emotional leadership (Stotland and Canon, 1972). It seems reasonable to consider value analysis as a means to select and promote police supervisors, particularly on the basis of reducing the strains commonly associated with the administrative role. Such an approach could involve not only pencil and paper tests, but could serve as the basis of evaluation exercises or role plays frequently used in the assessment center technique (Goldstein, 1977). Additional research

and future integration of salient stress related values with other selection techniques might prove useful in selecting supervisors on the basis of projected future performance.

Values, Self-esteem and Stress Control - Practical Implications

Increasingly, health practitioners have suggested that the key to effective public health programs reside with the individual and the attitudes and values that determine health related behaviors (Knowles, 1977; Conroy, 1979). An essential feature of these programs is the identification of attitudes and values that, on the one hand, sustain counter productive behaviors, and on the other determine an optimum level of health. These attitudes and values provide a substantial basis for the developing of methods for individual change and improved health (Conroy, 1979). Such a view towards occupational stress control is supported by the findings in the present study.

The results have demonstrated that for the police, physical/mental health, family well-being, problem drinking and particular organizational behaviors are, indeed, linked to levels of self-esteem and selected human values. On the basis of these findings it seems

reasonable to consider at least two potentially promising stress control programs for the police.

Self-esteem and Organizational Reform

In spite of a developing body of conceptual and empirical data documenting the causal role of organizational factors in problems of police strain, organizational reform has been conspicuously omitted from the majority of police stress control programs (Terry, 1981; Blackmore, 1978). While there are several explanations for this omission, one simple reason may be the failure to identify organizational solutions that are clearly linked to the individual officers and problems of strain. While police officers and administrators consistently complain about organizational practices, it remains unclear how these factors contribute to strain and, more importantly, what organizational changes would be effective. While police administrators and psychologists may be willing to consider organizational reform to help manage police stress, the type and direction of change remains unclear.

In the present study, the significant association of self-esteem with police strain provides a necessary link between organizational reform and stress control. It has been commonly believed that a person's self-esteem is a rather chronic attitude that does not tend toward extreme

fluctuation (Coopersmith, 1967). However, it has been noted that the self-esteem attitude may be more vulnerable to change depending upon an individual's environment and particular life events (Stotland, 1975). Such a view seemingly suggests that events and changes in an individual's occupational environment may indeed shape and determine self-esteem. This belief seems reasonable given the time consuming nature and status effects of an individual's occupation.

A useful way of viewing organizational reform, as a means for stress control, would be in light of its potential for maintaining and enhancing police officer self-esteem. Ezra Stotland (1975) has noted the critical linkages between self-esteem and police organizational practices, towards the control of police stress. Organizational reform, in this respect, includes numerous operational and philosophical changes designed to effect self-esteem. Police officers would be allowed to pursue a wider range of criminals and investigations to coincide with their desired image as crime control experts. Simultaneously, departmental reinforcement systems would provide greater rewards for the order maintenance and service delivery activities common to the police role. Officers would be provided with increased amounts of information concerning criminal activities, the community

and department activities to facilitate personal decision making while reducing ambiguity and uncertainty. To enhance the status of officers in the department the military ranks and multi-level hierarchy would be eliminated and reduced to minimize the "aura of intrinsic status differences."

Finally, organizational reform could enhance police self-esteem by enhancing the way the police relate to the community. By involving the police more directly in crime prevention and victim assistance, the officer would be perceived as a friend and helper sensitive to the needs of the public. Surveys of community attitudes toward the police and particular crime problems and solutions would provide the basis for positive feedback and help dispel the police myth that the public is against the police.

The need for organizational reform as a solution to numerous problems plaguing the police is not a new idea but has been repeatedly acknowledged by both scholars and practioners in law enforcement (Murphy, 1977; Brown and Locke, 1980; Goldstein, 1977; Stotland, 1975; Fogelson, 1977). The linkage of proposed new changes with self-esteem and the problems of stress and strain can help provide a basis and justification for changes. Yet organizational change is slow and confronted by many barriers. The early failures of the "team policing"

organizational change experiments, which emphasized, among other features, increased participation in decision making, is an unfortunate reminder of this fact (Black and Specht, 1973; Schwartz and Clarren, 1977). Accordingly, the importance of individual based stress control programs is clear as a means to both augment anticipated organizational changes while providing a more immediate and direct solution.

Value Enhancement: A Stress Control Program for Police

It has recently been noted that several major urban police departments have begun to cut back or terminate their stress control programs (Daviss, 1982). Unfortunately, these programs have been troubled by expensive designs and a failure to demonstrate a reduction or prevention of stress related problems (Axelbred and Valle, 1981; Somodeville, et al, 1981; Ellison and Genz, 1978). In part, these program weaknesses can be attributed to a general absence of an empirically established foundation which might suggest the need for alternative approaches based upon relevant data. The results of the present study identifying high and low stress values, together with a developing value change technique, provides the basis for such an alternative for police stress control.

Milton Rokeach (1973) has developed a value enhancement technique which has been usefully employed to encourage health constructive behaviors. In past research (over 25 studies), participants have been provided with feedback of objective information designed to make them aware of the fact that they may hold values or employ behaviors that violates their view of themselves as moral or competent people. This contradiction can lead to a state of self-dissatisfaction which results in observed changes in relevant values and behaviors. In two studies by Conroy, et al (1973) and DeSeve (1975) this technique was directed toward the values underlying smoking behavior resulting in predicted changes in values and reductions in smoking. This technique has also been usefully employed with police officers where a significant increase in the target value equality was observed (Sherrid and Beech, 1976).

Rokeach (1973) has proposed that a state of self-dissatisfaction may be aroused in various ways by making a person aware of contradictions or discrepancies within or between two or more of the following: one's terminal values system; one's instrumental value systems and one's cognitions about oneself; and the values and behaviors of significant positive and negative reference groups. In the two smoking studies this was accomplished

by focusing the attention of chronic smokers who indicated a desire to quit smoking to contradictions between their own low value for self-control and the generally high value for self-control among ex-smokers, a positive reference group.

On the basis of the findings in the present study, it is possible to design a value based stress control program, using the Rokeach technique, for dealing with several related police problems. High strain police personnel can first fill out a value survey, and then compare their rankings of key strain values with the normative rankings of a low strain value profile. Subsequent changes in values and related behaviors would result to the extent that officers are satisfied or dissatisfied with their respective rankings of key values. The degree of satisfaction or dissatisfaction would be enhanced by interpretations of the value contradictions or consistencies in terms of professional police competence and low personal moral strength. Existing data demonstrate that such a technique can be usefully employed as a separate program or as a supplement to existing programs (Conroy, et al 1973; Rokeach, 1979). Additionally, the value enhancement technique can be successfully presented in a variety of ways including television and via interactive computer (Rokeach, 1979;

Ball-Rokeach, Rokeach and Gruse, 1982). In the majority of applications, the value enhancement program has demonstrated desired changes after a simple session ranging from 20 to 50 minutes in length (Rokeach, 1973, 1979).

The usefulness of the value enhancement technique for stress control, while promising, would require careful consideration and evaluation. Although the proposed methods may raise serious ethical questions, existing data suggest that abuses such as arbitrary value manipulation are not possible (Rokeach and Grube, 1979). Clearly, additional research, evaluation and implementation are required to promote and enhance this promising intervention strategy.

Conclusions

In spite of the severe nature of the police stress problem, the causal role of organizational and individual factors and promising solutions for stress/strain control, progress promises to be slow. Ironically, the most formidable barriers to stress control seem to reside among the attitudes of the police themselves. Traditionally, police officers and administrators have denied or ignored the need to deal with stress and strain as anything other than common hazards of the profession. Newly developed stress control programs which are plagued with low

participation and administrative support are frequently the victims of the very "machismo" values that this study has demonstrated to be associated with strain. Popularly termed the "Harry Truman Syndrome," these attitudes lead to an uncompromising solution: "if you can't stand the heat, get out of the profession" (Hadley, 1978; Fennel, 1981).

Fortunately, progressive administrators and enlightened police officers are recognizing the limitations of insensitive responses to the stress/strain problem. The increasing personnel costs associated with attrition, disability, sick leave and liability suits combined with personal tragedy and dysfunctioning have together encouraged a more reasonable set of beliefs. The results in the present study that empirically link individual strain with organizational behavior supports the need to view the problems in a more flexible and comprehensive fashion. Police organizations can and have demonstrated the ability and willingness to change both their values and their practices (Pendleton, 1979). The successful control of the stress and strain problem for police may well depend upon these changes.

Chapter X

Epilogue

The Ecology of Stress and Strain

On March 12, 1981 in the city which hosted this study, police officers killed and deposited four opossums on the front door step of a 24-hour restaurant. The restaurant, located in the Northeast section of the city, a predominantely black neighborhood, was owned and operated by a black family who were long time residents in the area. Two police officers working the four to midnight shift, hunted down several opossums and ultimately ran over them with their patrol cars. After placing the dead animals in their car, the officers drove to the restaurant and called other police cars to view the event. After several patrol cars arrived, the officers removed the opossums from the back seat of their car, while laughing and joking with other officers. After throwing the dead animals on the sidewalk in front of the restaurant, the police jumped in their cars and sped away without turning on their headlights.

Understandably, the restaurant owners, patrons and the community were angry and upset. Complaints to the police department and notification of the news media exposed the incident as a public issue. An elected City Commissioner responsible for the Police Department, and

himself black, immediately deplored the incident, requesting witnesses to step forward to assist in an investigation.

The Commissioner stated publicly that little help could be expected from the officers involved; that the police would only deny their participation. Two days later, in a surprise move, two officers stepped forward and took responsibility for the affair.

Predictably, little agreement existed over the reason for the incident. The restaurant owners claimed the event was part of a systematic attempt by police to drive customers away.

Black community leaders characterized the affair as "only one more in a long list" of racist activities by police to harass the black community. The police department "officially" explained the event as the result of a long-standing traditional game in that precinct of trying to kill the most opossums. Furthermore, this particular incident, while "demonstrating very poor judgement," was characterized by the police department as a harmless joke designed to raise the morale of fellow officers and not as a racially motiviated form of harassment. Yet, inside information from officers directly involved suggest an entirely different reason;

one directly linked to occupational stress and thus important to the present research.

On one point, however, everyone would agree. This incident would account for the most profound and far reaching chain of events in the recent history of the city; events that would severely impact individuals, change the structure of the police department, alter professional careers and inflame the community.

What follows is a descriptive account of these events. The primary purpose of this account is to establish, for the record, the occurence and nature of this incident. Additionally, this account provides some sense of the tone and setting within which the empirical research was conducted; as the events described occurred during the gathering of field data. Finally, the description of these events can serve as a useful point of departure for further analysis and understanding of the stress/strain phenomenon. The information for this account comes from personal observation, local news reports, and interviews with key officials and participants. It is important to recognize the purely descriptive intent of this account. In-depth analysis and extensive interpretation are beyond the scope of the present research.

A Backdrop of Police Scandal

To fully appreciate the significance of the popularly termed "opossum incident," it is necessary to understand the prevailing atmosphere concerning the police at that time.

On January 6, 1981, six months before the opossum affair, the local newspapers broke a story of an investigation of police corruption in the department. Characterized as the biggest vice probe since the 1950's, the scandal involved several police officers from the narcotics unit, thousands of dollars in stolen cash, falsification of records, illegal or non-existent evidence, false arrests, death of a police officer, and many other violations and illegal activities. A secret investigation had been on-going for several months prior to the initial story. The media, while informed, agreed to hold the story until the completion of the department's investigation. Once the story broke, however, the corrupt activities of the police, administrative responses, political comment and public outcry were the topics of front page news stories for several months.

Ten days prior to the opossum incident, the police officer primarily involved in the scandal was sentenced to three years in prison. Additionally, several police officers resigned or were demoted, including command

personnel linked to the scandal. Perhaps most disturbing was the apparent false arrest, conviction and incarceration of over fifty people on various charges from drug possession to murder. As the investigation continued, it became apparent that the death of a police officer resulted directly from the corrupt activities of fellow officers. Within a six month time span, those who were falsely imprisoned were released, including the man convicted of killing the police officer. Needless to say, the city's residents were shocked and outraged at the activities of the police. In response to mounting political pressure, the chief of police and city commissioner responsible for the police department began implementing several changes. A community review panel was developed to review police conduct and make suggested recommendations for change. New policies were drafted and several administrative personnel changes were made within the police department. However, in the aftermath of the "opossum incident" the contemplated and accomplished reforms would prove inadequate. Profound change was imminent.

Stress Control Through Occupational Deviance

The negative effect of the narcotics scandal on the police officers with the department was, understandably, substantial. The high public visability of the police,

combined with the embarassment of incessant news of police corruption, drove morale to an all time low.

Police productivity dropped off as officers became reluctant to interact with a public that seemed quite willing to openly express contempt. Officers became defensive as they groped for ways to maintain their professional esteem. Ostensibly, it was for these reasons that the opossum incident occurred. The explanation for the event given to police department investigators and the media by the officers involved was that they wanted to raise morale. Throwing dead opossums was to be a means for humor among fellow officers, and not a form of "racial harassment."

In spite of the apparent need for morale lifting humor, the official police explanation for the opossum incident seemed to be lacking. Clearly, the juxtaposition of opossums, the restaurant and black proprietorship qualifies the incident as racial harassment. The willingness of officers to spend what must have been considerable time to kill four opossums with cars and then invite fellow officers to the event argues strongly for premeditated intent. What seems unclear, however, is why the officers would be so careless, even reckless, in preserving their identity? More specifically, why would two officers step forward to accept responsibility knowing

full well that severe and numerous sanctions were probable consequences? Police officers, both directly involved or closely related to the incident, have offered an alternative explanation, one that has not been aired publicly but seems to address the possibility that the officers may have intended to be "caught in the act."

According to informed police officers, the "opossum incident" was not a random act designed to improve morale, but a preplanned event of a much different purpose. For some time, officers working the four to midnight shift in that particular precinct had been concerned about the competence of a particular supervisor. This supervisor had been suffering from alcohol abuse which had progressed to the point that the officer was drinking on duty and at times would work while intoxicated. Over time, the situation became progressively worse, raising a concern for the supervisor's and others' safety. The supervisor would often go out on patrol, making car stops by himself using unsafe procedures which would require the assistance of other patrol officers. After several unsuccessful attempts to deal directly with the supervisor and encourage department action, the officers decided on another approach.

To force the police department to address the supervisor's alcohol abuse, officers decided to create an

incident which would focus attention on the "poor supervision" of their unit. After considering several plans, the opossum incident was selected as having all the necessary elements to force a transfer of the supervisor. To raise questions about supervision, it was important to demonstrate a misuse of their time. Killing opossums while on duty with police cars clearly met this criteria. Second, it was important to draw the attention of high ranking police administrators. A visable, politically volitale incident would virtually guarantee such attention. The close involvement of the elected city commissioner responsible for the police department, combined with the fact that he was black, again, made the opossum affair a perfect choice.

Finally, while it was important that the officers be caught and perhaps identified, steps needed to be taken to minimize their exposure to almost certain sanction. Two officers volunteered to create the incident because of their relative lack of vulnerability. One officer was single with no dependents. The other was married but had no children and his wife was safely established in a successful career. Most importantly, both officers had exemplary professional records. They were virtually without any citizen complaints and had received several letters of appreciation from black citizens in the area.

Additionally, one officer had been cited for courage under extreme circumstance and given commendations for several innovative approaches to solving enforcement problems in the precinct. Nowhere in their history as police officers was there evidence of racist behavior. In anticipation of the almost certain civil lawsuits, both officers quietly transferred ownership of their property to friends and relatives.

The site for the incident was also an important consideration and was selected for several specific reasons. First, it was a known hangout for people known to police for criminal activity, including drug dealings, asault and prostitution. To harass such patrons and the owners of a business supported by criminals was "but a small indiscretion." More importantly, however, was the fact that the restaurant was owned and operated by blacks; an idea central to the anticipated outcry and political response. In every respect, for some police officers, the effects to follow would be "too good to be true."

Social Outcry and a Political Dilemma

The initial shock among citizens was quickly replaced by outrage and social action. Black community leaders called a press conference characterizing the affair as "another incident of racial harassment" of blacks by the police. Additionally, they criticized the black city

commissioner, claiming that he was "out of touch" with what was occurring in the black community. Additional criticism was directed at the police department, comparing the internal investigation to a "hungry dog" set to guard the "meat house." To add to daily criticism, black leaders began calling for the Police Chief's resignation, along with a need for a new Police Commissioner. Numerous editorials appeared in the newspapers, questioning the supervision in the precinct, calling for an open investigation and suggesting the implementation of a citizen review process. As the pressure from the community mounted, it became obvious that the police commissioner and chief of police would be required to take decisive action, yet the extent and nature of the impending discipline remained an open question.

To many, the obvious discipline for the officers should be termination. As one newspaper editorial suggested, "It is an act that must be dealt with severely." Yet, for the elected commissioner and the chief of police, the choice was not so simple.

Looming in the background was the ever present police union. Over the years the union had grown into one of the strongest police labor organizations in the country. Union leaders had successfully negotiated labor contracts that had made the city's police the highest paid officers

on the west coast. In addition to numerous illness, disability and vacation benefits, the officers also enjoyed the security of a half million dollar union treasury. The long time union president was considered by most officers to be the one man most responsible for the development of the union. Yet, in recent years as newer officers and ideas entered the police department, changes developed along with dissatisfaction and a growing consideration of a change in leadership. Many felt that current leadership was out of touch with the needs of the younger officers and that a fresh approach was required. Only a few months prior to the opossum incident, the union president was narrowly reelected. None of the officers that ran for election with the president were returned to office. Visibly shaken by his narrow reelection, the union president recognized the necessity to broaden his base by responding to the needs of the younger officers. The opposum incident provided the event necessary to demonstrate the president's understanding and concern for the younger membership. Both of the officers under investigation were members of this "new breed" of police.

Immediately after the opossum incident, the police union quietly informed the police chief that it would not tolerate termination of the two officers. Such a decision by city officials would certainly result in a vigorous

defense and support of the two officers. For the police commissioner, an intelligent and effective politician, the undesirable effects of an open confrontation with the police union were all too clear.

The commissioner was well aware that the political graveyards are filled with the tombstones of those who have tangled with the police. Furthermore, it was not unimportant that the union had supported the recently elected conservative mayor in this city. Although the city government operated under a "weak mayoral" system, the mayor did have the power to assign to the elected commissioners which city departments they would manage. An open confrontation with the police union, long-time constituents of the mayor, could only increase the possibility that the mayor would reassign the police department to another commissioner, or assume temporary control himself. Such an adjustment would be a clear political victory for the mayor who viewed, accurately, the popular black commissioner as a formidable opponent in the next election.

In an attempt to avoid a confrontation with the police union, while trying to satify the demands of his own constituency, the commissioner tried to redefine the issues involved in the incident. In statements to the press, the commissioner expressed the belief that the

incident was not "racially motivated" but represented a "slap in the face to the entire community." In an effort to diffuse the outrage of the black community, the commissioner explained the incident as "a dumb mistake" resulting from frustration about crimes that police believed to occur frequently in and around the neighborhood. To buy additional time, the commissioner extended the investigation to search for citizens who may have witnessed the incident. During the delay, the commissioner openly criticized particular black spokesmen for exploiting the incident as a "black-white" issue. Characterizing the numerous press conferences and demands for the police chief's resignation as improper, the commissioner pointed out that such demands only promote "ill will" and have been "an embarrassment to the black community." The commissioner strongly suggested that such actions would not have "any influence" on his upcoming disciplinary decision.

The community, however, remained unconvinced. The following day after the commissioner's remarks, over 200 people marched on City Hall, calling for termination of the officers involved. The commissioner, while realizing his dilemma, decided to face the union, for in the long run it would be important to yield to the demands of his most solid constituency, the black community. Three days

later the officers were terminated. For, in fact, as the commissioner explained, they had "embarrassed both the police department and the public."

Power Politics and the Unification of a Union

The response from the police union was immediate. The union president, calling the termination of the two officers the "most unjustified termination in the history of the city," vowed to take the issue to court if necessary. Although clear in stating that the union did not condone the incident and that discipline was required, the president pointed out that the firing was excessive. After all, the officers "revealed themselves to the community" to apologize when they "didn't have to."

Five days after the terminations, the police union scheduled a general meeting. Over three hundred officers attended, many while on duty. The sentiments were clear, the membership would back the officers in every way possible. In a series of orchestrated maneuvers, several key decisions were approved during the meeting. The union would hire the two officers to work on the union newspaper at full salary until the case was settled. The union's attorneys would prepare for, and conduct a full legal battle to have the officers reinstated. A vote of confidence in the police commissioner and the police chief would be taken. Finally, the police would stage a march

on city hall to present the mayor with petitions to reinstate the officers.

In the week that followed, the police conducted one of the most vigorous community action campaigns in its history. Volumes of mail supporting the officers were sent to city hall and the local news media. A vigorous telephone solicitation was organized to encourage people to join the coming demonstration supporting the officers. A committee of people was organized to construct signs for the march and invite other city employees to participate. A series of speakers were recruited and scheduled to present speeches at city hall after the march.

On Friday, April 3rd, over 800 people joined in the march over a several block route through the downtown area. Evidence of community support was apparent as bus drivers stopped and sounded their horns, and sign toting fire fighters marched in the parade. Upon arrival at city hall, the union president presented the union's grievances and evidence that the community did not support the firings. A petition with 10,000 signatures urging the city to reinstate the officers was submitted. Most important, however, was the announcement that the police overwhelmingly voted "no confidence" in both the commissioner and the police chief. Of the 650 union members, the vote against the commissioner was 411 to 10

and against the chief 326 to 94. On this issue it became clear that the police were solidly united. The focus of attention now shifted to the mayor and his reaction.

Political and Administrative Realignment - a Response to Political and Social Stress

On the day following the police march to City Hall, the mayor made his first comments on the opossum incident. Up until this time the mayor had been curiously quiet and removed from the incident. On the day of the police demonstration, the mayor had been conveniently out of town attending a housing conference. Upon learning of the police march, the mayor responded that at the moment he had "no particular reaction." However, he would meet with the chief of police and police commissioner the following week.

The police commissioner, recognizing that the mayor was stalling for time to allow the incident to fully develop, publicly requested the mayor to state his position on the termination of the officers involved. The mayor, however, sidestepped the commissioner's request by amending an earlier campaign promise to allow the commissioner a free hand in the administration of the police department for as long as the commissioner so desired. In response to the police union's request to reassign the police department to another commissioner,

the mayor restated his confidence in the commissioner but announced that he "never said that the commissioner could have the police department assignment as long as he wanted it."

It was clear that the mayor was opening the door for reassignment of the police department, while refusing comment on the opossum incident to avoid alienating citizens on either side of the issue. In quick succession, several public figures and community groups issued statements supporting the police commissioner's disciplinary decision, while challenging the mayor to live up to the earlier campaign promises to not interfere with the police commissioner's management of the department. The local newspapers, long time adversaries of the mayor, printed several editorials and "letters to the editor" also supporting the commissioner's decisions while criticizing the mayor's refusal to comment on the issue. Yet, as the mayor maintained his "no comment" posture, he began to lay the groundwork for his future actions. While refusing to comment directly on the problems in the police department, the mayor suggested that these problems were "indicative of, let's say, an administrative phenomenon." To the mayor, the central question was "how well is the police department being run?"

The embattled commissioner was not unaware that administrative and organizational changes were required in the police department. New policies governing supervision of officers were drafted. Several commanders were reassigned along with various police officers to break up long time work groups. Efforts to conduct an organizational analysis to aid in further reorganization and change were initiated. These efforts, however, were insufficient to deflect the direction of the police malpractice issue.

Neighborhood groups, particularly from the black community, continued to press for reform in the police department. Citing numerous incidents of racial harassment and police abuse, community leaders increased the pressure for a citizen review committee to monitor police activities. At the same time, the police union increased its pressure to force reassignment of the commissioner and removal of the police chief. As if to underscore the increasing polorization of the general population, an informal newspaper poll of its readership resulted in a record response demonstrating an even split over the police firings. Of the over 1800 citizen responses 954 indicated support of the terminations while 865 were against the disciplinary decision.

In spite of the apparent lack of concensus in the community, the response of the mayor was beginning to emerge. In a comprehensive article, the leading newspaper in the city presented a political analysis of the decision facing the mayor. The central thrust of the article was the informed affirmation of the rumor that the mayor was soon to reassign the police department, fire the chief of police and promote a long time friend to the vacant chief's position.

In anticipation of the rumored changes, and perhaps in an effort to dissuade the mayor's decision, the newspaper announced a series of upcoming articles examining the police. In a carefully presented article, the paper announced the major finding of the investigative series to be, that the current problems had existed for the last 35 years--the time period which would include the tenure of the anticipated new chief. The series of articles focused on the long time influence and political connections of the union, the long history of racism in the department and other contemporary concerns that seemed rooted in the history of the department. Yet, in spite of the thrust of these articles, it seemed impossible to escape the current issues. The day before the announcement of the investigative series, arbitration of

the labor issues surrounding the officers' termination began.

Throughout the development of the opossum incident, the central and visible role of the elected commissioner had diverted attention somewhat from the chief of police. Earlier in the year, the chief had suffered a major heart attack which had forced a long recovery from open heart surgery. To some it was surprising, in view of the chief's health and the narcotics scandal, that the chief would return to work at all.

To others, who knew the chief, it was predictable that his professionalism and sense of responsibility would compel him to return to finish the investigations. It seemed fitting, if not ironic, that the chief, himself, would force the mayor's hand. As the opossum case went to arbitration, the chief announced his retirement.

The mayor, recognizing that he must move quickly to prevent the existing police commissioner from appointing a new chief, made his decision. On June 2, 1981, the mayor took control of the police department himself, and appointed a new chief, his long time friend and captain from within the department. The elected commissioner was reassigned the parks department but was required to continue handling the city's role in the ongoing arbitration hearings with the police union. Clearly, it

was a political defeat for the commissioner. Not as apparent, however, was the victory for the mayor, the police department and the community.

The Continuing Conclusion

The events following the mayor's acquisition of the police department do little to suggest the resolution of the problems facing the police. Black community groups, again, marched on City Hall in protest of the mayor's selection for chief of police. A history of police racism and indications of more to come, again, were the concern of the black community. The U.S. Department of Justice opened an investigation of allegations that the police department had violated the civil rights of citizens. The local newspaper commissioned a professional opinion poll of citizens which revealed that the majority of the randomly selected respondents supported the termination of the police officers, an obvious criticism of the mayor's decision and an indication of future media reports. Numerous restrictive policies, both formal and informal, were imposed upon the police department covering such irrelevent topics as length of hair and the use of profanity in locker rooms. A complete administrative shake up was undertaken to replace commanders with existing supervisors more clearly aligned with the new chief and his restrictive approach to management. The

city was sucessfully sued by the owners of the restaurant in this incident for over seventy thousand dollars.

Finally, what of the officers directly involved in the opossum incident? The supervisor who was suffering from alcoholism and the original object of concern, was relieved of duty to attend an alcoholism rehabilitation program. Upon his return from the program, the supervisor retained his rank and was reassigned to a staff position in the office of the chief of police. The two officers who admitted to the opossum incident were ultimately rehired on the basis of the arbitration findings.

The reemployment of the two officers was contingent upon several conditions including a requirement that they submit to a complete psychiatric evaluation. The results of this evaluation seem particularly relevant to the discussion of stress and strain. The psychiatrist concluded that both officers were suffering from excessive anger, frustration and anxiety associated with unresolved occupational stress.

In this case, according to the psychiatrist, strain resulted from the officers' perceptions that management decisions by their supervisor and other supervisors had created unsafe conditions in numerous incidents in which they were involved. Faulty decisions, lack of administrative support and a failure to act in dangerous

circumstances were among the officers' concerns. In the psychiatrist's opinion, the opossum incident was the direct result of the personal threat associated with poor supervision as a form of occupational stress.

The Ecology of Stress and Strain

In retrospect, it seems useful to consider, briefly, the implications of the opossum incident for the understanding of stress and strain. From a theoretical perspective this incident suggests that parochial views of the stress and strain phenomenon may be inadequate for a meaningful understanding of stress and its effects. Lazarus (1966), at the conclusion of his psychological examination of stress, recognized the limitations of narrow conceptualizations and suggested that an ecological perspective might better "assist us in understanding" the relevant processes. Such a view would include various levels of cause and effect analysis, logically linked to the social system within which specified events occur.

The opossum incident graphically illustrates the ecological nature of the stress and strain phenomenon. The interrelationships and logical linkages of stress and strain was evident in this incident at the individual, organizational, political and social levels of analysis. Stress at one level seemingly operated as strain at another forming a series of cause and effect interactions.

These interactions, when taken together, seem to form a stress and strain cycle or system where movement at one point could be observed at other points or levels in the system. Future examinations of stress and strain may profit from the guidance of systems theory as a means to identify relevant variables and specify the interactions that characterize the phenomenon.

From an applied point of view, the opossum incident seems to sound a warning to those police administrators and health practioners who insist on viewing stress as a purely individual problem. Clearly the effects of untreated stress and strain can destroy personal health, consume financial resources, limit organizational productivity, ruin professional careers, promote public distrust and encourage community outrage. To continue to view stress as evidence of individual incompetence or weekness is to deny both the causes and the potential effects. The opossum incident illustrates the need for a comprehensive approach to stress control spanning several levels of intervention while focusing upon prevention as well as treatment. Acceptance of this challenge may very well distinguish the future leaders of American policing.

BIBLIOGRAPHY

Abramson, J., Terespolsky, L., Brook, J., Kark, S.
Cornell Medical Index as a health measure in epidemiological studies: A test of the validity of a health questionnaire. British Journal of Preventive Social Med. 1965. vol. 19, 103-110.

Aldag, R., Brief, A.
"Supervisory Style and Police Role Stress." Journal of Police Science and Administration. Vol. 6, #3, pg. 362-367, 1978.

Anderson, N.
"Likableness Ratings of 555 personality-trait words." Journal of Personality and Social Psychology, 1968, 9, 272-279.

Arcuri, A.
Police Pride and Self-esteem: Indications of Future occupational changes. Journal of Police Science and Administration. 1976, Vol. 4, #4, 436-444.

Argyris, C.
"Individual actualization in Complex Organizations", Mental Hygiene, 44, 226-237, 1960.

Aronson, E. and Golden, B.
"The effect of relevant and irrelevant aspects of communication credibility on opinion change." Journal of Personality, Vol. 30, 135-146, 1962.

Astor, G.
The New York Cops. The New York Post, June 19, 1971.

Axelbred, M. and Valle, J.
"Stress Control Program for Police Officers: City of Miami Police Department." Unpublished concept paper no. 1, Counseling and Stress Control Center, 1978.

Axelbred, M. and Valle, J.
"Stress Control Program for Police Officers of the City of Miami Police Department." In Stress and Police Personnel. (Eds) Territo, L and Vetter, H., 279-286. Boston: Allyn and Bacon, Inc., 1981.

Baker, G. W. and Chapman, D. (Eds)
Man and Society in Diaster. New York: Basic Books, Inc., Publishers, 1962.

Ball-Rokeach, S., Rokeach, M., Grube, J.
Influencing behavior and belief through television. Manuscript under submission, 1982.

Basowitz, H., Persky, H., Korchin, S., Grinker, R.
Anxiety and Stress. New York: McGraw-Hill, 1955.

Baxter, D.
"Coping with Police Stress." Trooper, Vol. 3, No. 4, 68-73, 1978.

Bayley, D. and Mendelsohn, H.
Minorities and the Police: Confrontation in America. New York: Basic Books, 1969.

Becker, H.
"The Self and Adult Socialization." In Norbeck, E. (Ed), The Study of Personality, New York: Holt, Rinehart, Winston, 1969.

Bennett, R., Greenstein, T.
The Police Personality: A test of the predispositional model. Journal of Police Science and Administration. 1975, Vol. 3, #4, 439-445.

Berlo, D., Lemert, J., and Mertz, R.
"Dimensions for evaluating the acceptability of message sources." Public Opinion Quarterly, Vol. 33, 563-576, 1970.

Bishop, C. F.
Presidential preferences and values in 1968. Unpublished M.A. thesis, Michigan State University Library, 1969.

Black, D., Reiss, A.
"Patterns of Behavior in Police and Citizen Transactions." Section I of Studies of Crime and Law Enforcement in Major Metropolitan Areas, Vol. II, Washington, D.C.: 6 PO, 1967.

Black, D. and Specht, D.
Evaluation of Operation Neighborhood. Washington, D.C.: Urban Institute, 1973.

Blackmore, J.
"Are police allowed to have problems of their own?" Police Magazine, Vol. 1, No. 3, 47-55, 1978.

Blalock, H.
Social Statistics. San Francisco: McGraw-Hill, 1972.

Bornstein, Tim
"Police Unions: Dispelling the Ghost of 1919." Police Magazine, Vol. 1, No. 4: 25-34, 1978.

Brodman, K., Erdmann, A., Lorge, I., Wolfe, H.
The Cornell Medical Index: An adjunct to medical interview. Journal of American Medical Association, 1949, Vol. 14, 530-534.

Brodman, K., Erdmann, A., Lorge, I., Gershenson, G., Wolfe, H.
The Cornell Medical Index - Health Questionnaire: II. The recognition of emotional disturbances in a general hospital. Journal of Clinical Psychology, 1952, Vol. 8, 289-293.

Brown, L. P. and Locke, H.
"The Police and the Community." (Ed) Stautenberger, R. Progress in Policing Essays on Change. Cambridge: Ballinger Publishing, 1980.

Buechler, S. and Izard, C.
Anxiety in Childhood and Adolescence, in Kutash, I, Schlesinger, L. (Eds) Handbook on Stress and Anxiety. San Francisco: Jossey-Bass, 1980.

Burgin, A.
"The Management of Stress in Policing." Police Chief. 1978, 45, #4, 53-54.

Calame, B.
"Man in the Middle." In W. H. Newitt & C. L. Newman (Eds) Police-Community Relations: an anthology and bibliography. Mineola, N.Y.: Foundation Press, 1970.

Caplan, R. D., Cobb, S., French, J., Harrison, R. and Pinneau, S.
Job Demands and Worker Health: Main Effects and Occupational Differences. Washington D.C.: U.S. Government Printing Office, 1975.

Cartwright, D. and Zander, A. (Eds)
Group Dynamics Research and Theory. New York: Harper and Row, 1968.

Cahell, R. and Scheier, I.
Handbook for the IPAT Anxiety Scale 2nd Ed. Champaign, Ill.: Institute for Personality and Ability Testing, 1963.

Chandler, E. and Jones, C.
"Cynicism - An Inevitability of Police Work?" Journal of Police Science and Administration, Vol. 7, No. 1, 65-68, 1979.

Chwast, J.
"Value Conflict in Law Enforcement." Crime and Delinquency, Vol. 11, 151-161, 1965.

Clark, R.
Crime In America: Observations on its nature, causes, prevention and control. New York: Pocket Books, 1971.

Coburn, D.
(1975) "Job-worker incongruence: Consequences for Health," Journal Health and Social Behavior; 16, 198-212.

Cochrane, R., Rokeach, M.
"Rokeach's Value Survey: a Methodological Note," Journal of Experimental Research in Personality, 1970, 4, 159-161.

Cohen, A.
"The Study of Social Disorganization and Deviant Behavior," in Merton, R., Broom, L. and Cottrell, L. (Eds) Sociology Today Problems and Prospects Volume II. New York: Harper and Row: 461-484, 1959.

Cohn, A., Viano, E.
Police-Community Relations: Images, Roles, Realities. New York: Lippincott, 1976.

Conner, P., Becker, B.
Values and Comparative Organizational Research. Proceedings of the Academy of Management, 1974, Vol. 18, 88-94.

Conroy, W.
"Human Values, Smoking Behavior and Public Health Programs." In Understanding Human Values Individual and Societal (Ed) Rokeach, M., New York: Free Press, 1979.

Conroy, W., Kathin, E. and Barnette, W.
Modification of Smoking behavior by the use of a self-confrontation technique. Proceedings, Southeastern Division, American Psychological Association, pg. 56, 1973.

Coopersmith, S.
The Antecedents of Self-Esteem. San Francisco; Freeman, 1967.

Corbett, M., Meyer, F., Baker R., Rudoni, D.
Conflict, Concensus and Perceptions of Support Among the Police. Journal of Police Science and Administration. 1979, Vol. 7, #4, 449-458.

Cory, B.
"Minority Police: Tramping Through a Racial Minefield." Police Magazine. Vol. 2, No. 2, 1979, 4-15.

Daley, Robert
Target Blue. New York: Delacorte Press, 1971.

Daviss, B.
"Burnout." Police Magazine, Vol. 5, No. 3, 1982.

DeSeve, K.
An Examination of the Relationship Between Values and Smoking Behavior. Unpublished Phd. dissertation, Washington State University, Pullman, Washington; 1975.

Dreifus, Claudia
"People are always asking me what I'm trying to prove." Police Magazine. Vol. 3, #2, 18-27.

Dunne, J.
"Counseling Alcoholic Employees in a Municipal Police Department." Quarterly Journal of Studies on Alcohol, Vol. 34, No. 2: 423-434, 1973.

Durner, J., Kroeker, M., Miller, C. and Reynolds, W.
"Divorce - Another Occupational Hazard." Police Chief, Vol, 62, No. 11, 48-53, 1975.

Eisenberg, T.
"Job Stress and the Police Officer: Identifying stress reduction techniques." In Job Stress and the Police Officer: Identifying Stress Reduction Techniques, (Eds) Kroes, W. and Hurrel, J. Proceedings of Symposium, Cincinnati, Ohio, May 8-9, 1975. Washington, D.C.: U.S. Government Printing Office, 1975.

Ellison, K. and Genz, J.
"Police Officer as Burned-out Samaritan." FBI Law Enforcement Bulletin, Vol. 47, No. 3, 1-7, 1978.

England, G.
Personal value systems of American managers. Academy of Management Journal. 1967, 10, 53-68.

Feather, N.
Similarity of Value Systems as a Determinant of Educational Choice at University Level. Australian Journal of Psychology. Vol. 23, #2, 1971.

Feather, N.
"Value Similarity and Value Systems in State and Independent Secondary Schools." Australian Journal of Psychology. Vol. 24, No. 3, 305-315, 1972.

Feather, N.
Values in Education and Society. New York: The Free Press, 1975.

Fell, R., Richard, W. and Wallace, W.
"Psychological Job Stress and the Police Officer." Journal of Police Science and Administration. 1980, Vol. 8, 139-144.

Fennell, J.
"Stress Reduction and the Harry Truman Syndrome." Police Stress. Vol. 4, No. 1: 44, 1981.

Ferdinand, T. and Luchterhard, E.
"Inner City Youth, the Police, the Juvenile Court and Justice." Social Problems, 1970, 17, 510-527.

Festinger, L.
A Theory of Social Comparison Processes. Human Relations, 7, 117-140, 1954.

Festinger, L., Schachter, S., Back, K.
"Operation of Group Standards", Chapter 5-6 in Social Pressures in Informal Groups. Same authors, New York: Harper and Row, 1950.

Fogelson, R.
Big-City Police. Cambridge, Mass: Harvard University Press, 1977.

Frank, A.
"When All Else Fails, Call the Teamsters." Police Magazine, Vol. 1, No. 4: 21-24, 1978.

French, E. G.
"Motivation as a Variable in Work-Group Partner Selection," Journal of Abnormal and Social Psychology. 1956, 53, 96-99.

French, J.
"Person-role fit." In McLean, A. (Ed.), Occupational Stress. Springfield, Ill., C. C. Thomas, 70-79, 1974.

French, J.
"A Comparative Look at Stress and Strain in Policemen." In Job Stress and the Police Officer: Identifying Stress Reduction Techniques. (Eds) Kroes, W. and Hurrell, J. Proceedings of Symposium, Cincinnati, Ohio, May 8-9, 1975. Washington D.C.: U. S. Government Printing Office, 1975.

French, J.
A Programmatic Approach to Studying the Industrial Environment and Mental Health. The Journal of Social Issues. Vol. 18, No. 3, 1-48, 1962.

French, J., Kaplan, R.
"Organizational Stress and Individual Strain." in A. J. Marrow (Ed.), The Failure of Success, New York: Amacom, 1973.

French, J., Rogers, W., Cobb, S.
A Model of Person-Environment Fit. In Coelho, G. V., Hamburgh, D. A. and Adams, J. (Eds). Coping and Adaptation. New York: Basic Books. 1974.

French, J., Tupper, C., Mueller, E.
Work Load of University Professors, Cooperative Research project #2171, the University of Michigan, 1965.

Friedman, M., Rosenman, R.
Type A Behavior and Your Heart. Greenwich, Conneticut: Fawcett Books, 1974.

Friedman, P.
"Suicide Among Police: A Study of Ninety-three Suicides Among New York Policemen 1934-1940." In Essays in Self-destruction (Ed.) Schneidrean, E., New York: Science House, 1968.

Gardner, W., Taylor, P.
Health and Work. New York: Wiley, 1975.

Gerard, H.
"The Anchorage of Opinions in Face to Face Groups." Human Relations, 1954, Vol. 7, 313-325.

Goldstein, H.
Policing a Free Society. Massachusetts: Batlinger, 1977.

Goodin, Carl
"Opening Remarks." In Job Stress and the Police Officer: Identifying Stress Reduction Techniques, (Ed.) Kroes, W. and Hurrell, J. Proceedings of Symposium, Cincinnati, Ohio, May 8-9, 1975. Washington D.C.: U.S. Government Printing Office, 1975.

Gorer, G.
Modification of National Character: The role of the police in England. Journal of Social Issues, 1955, 11 (2), 24-32.

Gray, T.
"Selecting for a Police Subculture." Police in America. Boston: Little and Brown, 1975.

Greenberg, I. and Smith, B.
Police Policies and Patrol Officer Satisfaction with Department Operations. Washington, D.C.: National Institute of Law Enforcement and Criminal Justice, 1979.

Greenstein, T.
"Behavior change through value self-confrontation: a field experiment." Journal of Personality and Social Psychology, Vol. 34, 254-262, 1976.

Grencik, J.
Toward An Understanding of Stress. In Job Stress and the Police Officer. U.S. Department of Health, Education and Welfare. # (NIOSH) 76-187, 1975.

Grinker, R. and Spiegel, J.
Men Under Stress. Philadelphia: Blakiston, 1945.

Gross, N., Mason, W., McEachern, A.
Explorations in Role Analysis. New York: Wiley, 1958.

Gruber, C.
"The Relationship of Stress to the Practice of Police Work." The Police Chief, Vol. 47, No. 2: 16-19, 1980.

Guralnick, L.
Mortality by occupation and cause of death among men 20-64 years of age: United States 1950. Vital statistics, special report 53, 1963.

Hadley, B.
"An Exploration of Occupational Stress in Police Officers." Unpublished Masters thesis, University of Washington, Graduate School of Public Affairs, 1978.

Hageman, M.
"Occupational Stress and Marital Relationships." Journal of Police Science and Administration. Vol. 6, No. 4, 402-412, 1978.

Halpin, A.
"The Leader Behavior and Effectiveness of Aircraft Commanders," in Leader Behavior: Its Description and Measurement, (Eds) Stogdill, R. and Coons, A., Ohio State University, Bureau of Business Research, Monograph No. 88, 52-64, 1957.

Halpin, A. and Winer, B.
"A factoral study of the leader behavior description," in Leader Behavior: Its Description and Measurement. (Eds) Stogdill, M. and Coons, A., Ohio State University, Bureau of Business Research, Monograph No. 88, 39-51, 1957.

Hamilton, M., Pond, D., Ryle, A.
Relation of C.M.I. responses to some social and psychological factors. Journal of Psychosomatic Research, 1962, Vol. 6, 157-165.

Harris, R.
The Police Academy An Inside View. New York: Wiley and Sons, 1973.

Harrison, R.
"Person-Environment Fit and Job Stress." In Cooper, C. and Payne, R. (Eds) Stress at Work. New York: Wiley and Sons, 175-208, 1978.

Harrison, R.
"Job demands and Worker Health: Person-Environment Misfit." Doctoral Dissertation, the University of Michigan, 1976. Dissertation Abstracts International, 37, 1035B (University Microfilms No. 76-19, 150).

Hays, W.
Quantification in Psychology. Belmont, Calif.: Brooks and Cole, 1967.

Heiman, M. F.
"Police Suicide." Journal of Police Science and Administration. Vol. 3, 267-273, 1975.

Herrick, N.
"A Process for Reducing Occupational Stress." In Job Stress and the Police Officer Identifying Stress Reduction Techniques. (Eds) Kroes, W. and Hurrell, J. Proceedings of Symposium Cincinnati, Ohio, May 8-9, 1975, Washington D.C.: U.S. Government Printing Office, 1975.

Heussenstamm, F. K.
"Bumper Stickers and the Cops." Trans-Action, February, 1971, 32-33.

Hillgren, J., Bond, R., Jones, S.
Primary Stressors in Police Administration and Law Enforcement. Journal of Police Science and Administration, 1976, 4, 445-449.

Hinkle, L.
The Concept of 'Stress' in the Biological and Social Sciences. Science, Medicine and Management, Vol. 1, 31-48, 1973.

Hollen, C.
Value Change, perceived instrumentality and Attitude Change. Unpublished Ph.d. dissertation, Michigan State University, 1972.

Hopkins, S.
Behavioral and Attitude Changes produced from dissonance created between intrapersonal values and Attitudes. Unpublished Ph.d. dissertation, University of Texas at Austin, 1973.

House, J.
"The Relationship of Intrinsic and Extrinsic Work Motivations to Occupational Stress and Coronary Heart Disease Risk." Doctoral dissertation, the University of Michigan, 1972. Dissertation Abstracts International, 33, 2514-A (Univerity Microfilms No. 72-29094).

House, J. S.
"Occupational Stress and Coronary Heart Disease: A Review and Theoretical Integration." Journal of Health and Social Behavior., Vol. 15, 12-27, 1974.

Hovland, C. and Weiss, W.
"The Influence of Source Credibility on Communication Effectiveness." Public Opinion Quarterly. Vol. 15, 635-650, 1951.

Insel, P. M. and Moos, R. N.
"Psychological Environments: Expounding the Scope of Human Ecology." American Psychologist, 1974, 29, 179-188.

Janowitz, M.
The Last Half-Century Societal Change and Politics in America. Chicago: The University of Chicago Press, 1978.

Kahn, R., Wolfe, D., Quinn, R. and Snoek, J.
Organizational Stress: Studies in Role Conflict and Ambiguity. New York: Wiley, 1964.

Katz, D., Kahn, R.
The Social Psychology of Organizations. New York: Wiley, 1978.

Kaplan, H., Pokorny, A.
Self-derogation and psychosocial adjustment. Journal of Nervous and Mental Disease, 1969, 149, 421-431.

Kasl, S.
"Epidemiological Contributions to the Study of Work Stress." in Copper and Payne (Eds), Stress at Work. New York: Wiley, 3-50, 1978.

Kelling, G. and Pate, M.
"The Person-Role fit in Policing: the Current Knowledge and Future Research." In Job Stress and the Police Officer. U.S. Department of Health Education and Welfare. # (NIOSH) 76-187, 1975.

Kelly, K., Silverman, B., and Cochrane, R.
"Social Desirability and the Rokeach Value Survey." Journal of Experimental Research in Personality, 1972.

Kelman, H. C. and Hovland, C.
"Reinstatement of the Communicator in delayed measurement of opinion Change." Journal of Abnormal and Social Psychology. Vol. 48: 327-335, 1953.

Kiernam, M. and Cusick, J.
"Women on Patrol." Police Magazine. Vol. 1, #1, 45-54, 1977.

Knowles, J.
"The Responsibility of the Individual." Daedales, 1977, Winter, 57-80.

Kobasa, S.
"Stressful Life Events, Personality and Health: An Inquiry into Hardiness" Journal of Personality and Social Psychology, 1979, 37, 1-11.

Krajick, K.
"The Liability Crisis: Who Will Insure the Police?" Police Magazine. Vol. 1, No. 1, 33-40, 1978.

Kroes, W.
Society's Victim - The Policeman. Springfield, Ill.: Thomas, 1976.

Kroes, W., Margolis, B., and Hurrell, J.
"Job Stress in Policemen." Journal of Police Science and Administration, Vol. 2, No. 2, 145-155, 1974.

Krohne, H.
"Individual Differences in Coping with Stress and Anxiety," in Spielberger, C., and Sarason, I. (Eds) Stress and Anxiety Volume 5. Washington: Hemisphere, 1978.

Kronholm, W. C.
"Blue Power: the threat of the militant policeman." Journal of Criminal Law, Criminology and Police Science, 1972, 63, 294-299.

Kulka, R.
"Person-Environment fit in the high school: A Validation Study." Doctoral Dissertation, the University of Michigan, 1975. Dissertation Abstracts International, 36, 5352B. (University Microfilms No. 76-9438)

Lamb, D.
The effects of Public Speaking on Self-report, Physiological and behavioral measures of anxiety. Unpublished doctoral dissertation, Florida State University, 1969.

Landy, F. and Trembo, D.
Psychology of Work Behavior. Homewood, Ill. Dorsey Press, 1976.

Langner, T. S. and Michael, S. T.
Life Stress and Mental Health. New York: The Free Press, 1976.

Larson, O., Lundberg, G., Schrag, C., Culton, W.
Sociology. New York: Harper and Row, 1968.

Lawler, E.
Can the quality of work life be legislated?, The Personnel Administrator, 1976, 21, 17-22.

Lazarus, R.
The Concepts of Stress and Disease. In Leui, L. (Ed.), Society, Stress and Disease, Vol I. London: Oxford Press, pp. 53-58, 1971.

Lazarus, R. S.
Psychological Stress and the Coping Process. New York: McGraw-Hill, 1966.

Lazarus, R. and Launier, R.
"Stress related transactions between person and environment." In L. A. Pervin & M. Lewis (Eds). Perspectives in interactional Psychology. New York: Plenum Press, 1978.

Lefkowitz, J.
"Attitudes of Police toward their Job." In the Urban Policeman in Transition (Eds.) Snibbe, J. and Snibbe, H., Springfield, Ill.: Charles Thomas, 1973.

Lefkowitz, J.
"Job Attitudes of Police: overall description and demographic correlates." Journal of Vocational Behavior, 1974, 5, 221-230.

Lefkowitz, J.
"Psychological Attributes of Policemen: a review of research and opinion." Journal of Social Issues, Vol. 31, No. 1, 3-27, 1975.

Lefkowitz, J.
"Industrial-Organizational Psychology and the Police." Americal Psychologist, May, 1977, 346-364.

Leventhal, H., Trembly, G.
"Negative Emotions and Persuasion." Journal of Personality, Vol. 36, 154-168, 1968.

Levine, Charles
"Organizational Decline and Cutback Management." Public Administration Review, Vol. 38, No. 4; 316-324, 1978.

Lewin, K.
A Dynamic Theory of Personality. New York: McGraw-Hill, 1935.

Lewin, K.
Field Theory in Social Science Selected Theoretical Papers by Kurt Lewin. (Ed) by Cartwright, D. New York: Harper and Row, 1951.

Lipowski, Z.
Physical Illness, the patient, and his environment: psychosocial foundations in medicine. In Organic Disorders and Psychosomatic Medicine. Vol. 4, American Handbook of Psychiatry (Ed) Reiser, M. New York: Basic Books, 3-42, 1975.

Maas, Peter
"Serpico: the Cop who Defied the System." in Police in America (Eds) Skolnick, J. and Gray, T. Boston: Little, Brown, 1975.

Maslach, C. and Jackson, S.
"Burned-out Cops and their families." Psychology Today, Vol. 12, NO. 12, 58-63, 1979.

Matarazzo, J., Allen, B., Saslow, G., Weins, A.
"Characteristics of Successful Policemen and Firemen Applicants." Journal of Applied Psychology, Vol. 48, 123-133, 1964.

May, R.
"Value Conflicts and Anxiety." In Kutash, Schlesinger, and Associates (Eds). Handbook on Stress and Anxiety. San Francisco: Jossey-Bass, 1980.

Merton, R.
Social Theory and Social Structure. New York: The Free Press, 1957.

McGaghy, C.
Cops talk back. Urban Officers Quarterly, 1968, 4 #2, 245-256.

McGrath, J.
"A conceptual formulation for Research on Stress." In McGrath, J. E. (Ed.), Social and Psychological factors in Stress. New York: Holt, Rinehart, Winston, 1970, 10-21.

McGrath, J.
"Stress and behavior in Organizations." In Dunnette, M. D. (Ed.) Handbook of Industrial and Organizational Psychology. Chicago: Rand McNally, 1976.

McLean, A.
"Occupational 'Stress' - A Misnomer." In McLean, A. (Ed.) Occupational Stress. Springfield, Ill: C. C. Thomas, pp. 98-105, 1976.

McMurray, R.
"Conflicts in human Values." Harvard Business Review 1963, 40, 130-145.

Mills, R.
"Use of diagnostic small groups in police recruit selection and training." Journal of Criminal Law, Criminology and Police Science, 1969, 60, 238-241.

Monroe-Cook, D.
"Stress Leads Police Officers to John Wayne Syndrome" Crime Control Digest, Vol. 9, #10, March 10, 1975, 2.

Morales, A.
"Police Deployment Theories and the Mexican American." In Police In America, Skolnick, J. and Gray, T. (Eds). Boston: Little and Brown Publications, 1975.

Muir, W.
Police: Streetcorner Politicians. Chicago: The University of Chicago Press, 1977.

Munro, J.
Administrators Behavior and Police Organizations. Anderson: Boston, 1974.

Murphy, P.
Commissioner. New York: Simon and Schuster, 1977.

Nealey, S. and Blood, M.
"Leadership performance of Nursing Supervisors at two organizational levels." Journal of Applied Psychology, Vol. 52; 414-22, 1968.

Neiderhoffer, A.
Behind the Shield. Garden City, New York: Doubleday, 1967.

Nelson, Z. P. and Smith, W.
"The Law Enforcement Profession: An incident of High Suicide." Omega, Vol. 1, No. 4, 293-299, 1970.

Newcomb, T.
"Varieties of interpersonal attraction," in Cartwright & Zander (Eds) Group Dynamics: Research and Theory. 2nd Ed. Evanston, Ill. Row, Peterson, 1960, pg 104-119.

Orth-Gomer, K.
"Ischemic heart disease as result of psychosocial processes." Social Science and Medicine, Vol. 8, 39-45, 1974.

Panzarella, R.
"The Police Value Hierarchy." Police Studies the International Review of Police Development, Vol. 3, No. 2, 10-14, 1980.

Paul, W. and Robertson, K.
Job Enrichment and Employee Motivation. New York: Grower Press, 1970.

Payne, R.
Epistemology and the Study of Stress at Work. In Stress at Work, Cooper, C. and Payne, R. (Eds), New York: Wiley and Sons, 1978.

Pendleton, M.
"The myth of intransigence: an exercise in police organizational change." Journal of Social Development Issues. 1979, 23-47.

Penner, L.
"Interpersonal Attraction toward a Black person as a function of value importance." Personality, Vol. 2, 175-187, 1971.

Penner, L. A., Homort, R., Rokeach, M.
"Comparison of Rank order and Paired-comparison Methods for Measuring Value Systems." Perceptual and Motor Skills, 1968, 27, 417-418.

Poole, E. and Regoli, R.
"Police Professionalism and Cynicism - An Empirical Assessment." Criminal Justice and Behavior, Vol. 6, No. 2, 201-206, 1979.

Pepitone, A., Wilpizeski, C.
"Some consequences of experimental rejection." Journal of Abnormal and Social Psychology, 60, 359-364, 1960.

Perry, J. and Pugh, M.
Collective Behavior: Response to Social Stress. St. Paul: West Publishing, 1978.

Personal accounts.
"In my experience as a police officer, myself and many other officers maintained and developed our outside nonpolice friendships. Participation in nonpolice team athletics and continuation of preestablished friendships were common. These social networks were an important source of support and served to sustain many of the nonpolice values and beliefs that comprised our cognitive systems."

Pervin, L.
"A free-response description approach to the Analysis of Person-Situation interaction," Journal of Personality and Social Psychology, 34, 465-474.

Piliavin, J.
Police-community alienation: Its structural roots and a proposed remedy. Andover, Mass.: Warner Modular Publications, 1973.

Priess, J. and Ehrlich, H.
An Examination of Role Theory. Lincoln, Nebraska, University of Nebraska Press, 1966.

Public Health Service.
Promoting Health Preventing Disease. Public Health Service, U.S. Government Printing Office, Washington, D.C., 1980.

Radelet, L.
The Police and the Community. Beverly Hills, California: Glencoe Press, 1973.

Regoli, R., Poole, E. and Hewitt
"Exploring the Empirical Relationship between Police Cynicism and Work Alienation." Journal of Police Science and Administration. Vol. 7, No. 3, 336-339, 1979.

Reiser, M.
"Some Organizational Stresses on Policemen," Journal of Police Science and Administration. Vol. 2, No. 2, April, 1974, p. 156-159.

Reiss, A.
"Career orientations, job satisfaction and the assessment of Law Enforcement problems by officers." Studies in Crime and Law Enforcement in Major Metropolitan Areas. Vol. I, Washington, D.C., U.S. Government Printing Office, 1967.

Reiss, A.
The Police and the Public. New Haven: Yale University Press, 1971.

Reiss, A., Bordua, D.
"Environment and Organization: A Perspective on the Police." in Bordua (Ed.) The Police: Six Sociological Essays. New York: Wiley, 1967.

Reppetto, T.
The Blue Parade. New York: The Free Press, 1978.

Richard, W. and Fell, R.
"Health Factors in Police Job Stress." In Job Stress and the Police Officer: Identifying Stress Reduction Techniques, (Ed.) Kroes, W. and Hurrell, J. Proceedings of Symposium, Cincinnati, Ohio, May 8-9, 1975. Washington D.C.: U.S. Government Printing Office, 1975.

Rimier, I.
"The impact of mass media on cancer control programs." In Cancer: the behavioral dimensions. (Eds.) Cullen, J., Fox, B. and Isom, R. New York: Raven Press, 1976.

Roberg, R.
The Changing Police Role. San Jose, California: Justice Systems Development, 1976.

Rokeach, M.
The Nature of Human Values. New York: Free Press, 1973.

Rokeach, M.
"Long-term Value Change initiated by Computer feedback," Journal of Personality and Social Psychology. 1975, Vol. 32, 467-476.

Rokeach, M.
Understanding Human Values Individual and Societal. New York: Free Press, 1979.

Rokeach, M., Miller, M. and Synder, J.
"The Value gap between the Police and the Policed." Journal of Social Issues, 1971, 1, 334-343.

Rokeach, M. and Cochrane, R.
"Self confrontation and confrontation with another as determinants of long-term value change." Journal of applied Social Psychology, 1972, Vol. 2, 283-292.

Rokeach, M. and Grube, J.
"Can Values Be Manipulated Arbitrarily?" In Understanding Human Values Individual and Societal. (Ed.) Rokeach, M. 241-258. New York: Free Press, 1979.

Rokeach, M., Regan, J., Grube, J.
"Personal and Corporate Values and Corporate Identification of Managers from Several Levels of an Organization." Under Review, 1980.

Rokeach, M., Grube, S., Ball-Rokeach, S.
Influencing Behavior and Belief through Television. In Press, 1982.

Rosenberg, M.
"Parental interest and Children's Self-conceptions." Sociometry, 26: 35-49, 1963.

Rosenberg, M.
Society and the adolescent self-image. Princeton, New Jersey: Princeton University Press, 1965.

Rubenstein, J.
City Police. New York: Farrar Straus, and Giroux, 1973.

Ruff, G. and Korchin
"Adaptive Stress Behavior." In Appley, M. N., and Trunbull, R. (Eds.), Psychological Stress. New York: Appleton-Century-Crofts, 297-306, 1967.

Sales, S.
Differences among individuals in affective, behavioral, biochemical and physiological responses to variations in work overload. Doctoral Dissertation, University of Michigan, Ann Arbor, 1969.

Sanders, K. and Atwood, E.
"Value Change Initiated by Mass Media." In Understanding Human Values Individual and Societal. (Ed.) Rokeach, M., 210-225. New York: Free Press, 1979.

Schwartz, A. and Clarren, S.
Cincinnati Team Policing Experiment. Washington, D.C.: Police foundation, 1977.

Schwartz, J. and Schwartz, C.
"The Personal Problems of the Police Officer: A Plea for Action." In Job Stress and the Police Officer Identifying Stress Reduction Techniques. Proceedings of Symposium Cincinnati, Ohio, May 8-9, 1975. Washington, D.C.: U.S. Government Printing Office, 1975.

Scotch, N.
"Sociocultural Factors in the Epidemiology of Zulu Hypertension." American Journal of Public Health, Vol. 53: 1205-1213, 1963.

Scott, W. A.
Values and Organizations. Chicago: Rand McNally, 1965.

Seashore, S.
Group Cohesiveness in the industrial work group. Ann Arbor, Mich.: Institute for Social Research, 1954.

Selye, H.
The Physiology and Pathology of Exposure to Stress. Montreal: Acta, Inc. 1950.

Selye, H.
The Stress of Life. New York: McGraw-Hill, 1956.

Selye, H.
"The Stress of Police Work." Police Stress. Vol. 1, No. 1, 1978.

Selye, H.
"The Stress Concept Today." Handbook on Stress and Anxiety. (Eds.) Kutash, I., Schlesinger, L. San Francisco: Jossey-Bass Inc., 1980.

Serrill, M.
"Urban Crisis Is Making Police Vulnerable - And Angry." Police Magazine. Vol. 1, No. 1, 2-16, 1977.

Sherrid, S. and Beech, R.
"Self-dissatisfaction as a determinant of change in Police Values." Journal of Applied Psychology, Vol. 61, 273-278, 1976.

Shotland, R.
Client attrition during psychotherapy as it relates to the value structure of the patient and therapist. Unpublished M.A. thesis, Michigan State University Library, 1968.

Shotland, R. and Berger, W.
"Behavorial Validation of Several Values from the Rokeach Value Scale as an index of honesty." Journal of Applied Psychology, 1970, 54, 433-435.

Shrauger, J., Sorman, P.
"Self-evaluations, initial success and failure and improvement as determinants of Persistence." Journal of Consulting and Clinnical Psychology, 1977, 45, #5, 784-795.

Skiula, A.
A study of the values and value systems of college roommates in conflict and nonconflict situations, and an investigation to determine whether roommate conflict can be attributed to differing values and value systems. Unpublished Phd. dissertation, Michigan State University Library, 1970.

Silber, E. and Tippett, J.
"Self-esteem: clinical assessment and measurement validation." Psychological reports, 1965, 16, 1,017 to 1,071.

Singleton, G. and Teahan, J.
"Effects of Job-Related Stress on the Physical and Psychological Adjustment of Police Officers." Journal of Police Science and Administration, Vol. 6, No. 3, 355-361, 1978.

Skolnick, J.
Justice without trial Law Enforcement in Democratic Society. New York: Wiley and Sons, 1967.

Smelser, N.
Theory of Collective Behavior. New York: The Free Press, 1962.

Smith, D. and Stotland, E.
"A new look at Police Officer Selection," in Snibbe, J. and Snibbe, H. (Eds.), The Urban Policeman in transition. Illinois: Thomas, 1973, 5-25.

Somodeville, S., Baker, C., Hill, W. and Thomas, N.
"Stress Management in the Dallas Police Department." In Stress and Police Personnel. (Eds.) Territo, L. and Vetter, N., 287-294, Boston: Allyn and Bacon Inc., 1981.

Spielberger, C., Gorsuch, R., Lushene, R.
State - trait anxiety inventory Manual. Palo Alto, California: Consulting Psychologists Press, 1970.

Sterling, J.
Changes in Role Concepts of Police Officers. Maryland: International Association of Chiefs of Police, 1972.

Stotland, E.
"Self-esteem and Stress in Police Work." In Kroes, W. and Hurrell, J.(Eds.) Job Stress and the Police Officer. U.S. Department of Health, Education and Welfare. Publication # (NIOSH 76-187), 1975.

Stotland, E.
"Self-esteem and Violence by Guards and State Troopers at Attica." Criminal Justice and Behavior, 1976, Vol. 3, No. 1, 85-95.

Stotland, E. and Berberich, J.
"The Psychology of the Police." In Psychology of Crime and Criminal Justice (Ed.) Toch, H. New York: Holt, Rinehart and Winston, 1979.

Stotland, E., Canon, L.
Social Psychology. Philadelphia: Saunders, 1972.

Stotland, E., Martinez, J.
"Self-esteem and Mass Violence at Kent State." International Journal of Group Tensions, 1976, Vol. 6, No. 3 and 4, 3-14.

Taylor, D. A., Wheeler, L., Altman, I.
"Stress Reactions in Socially Isolated Groups." Journal of Personality and Social Psychology, Vol. 9, 369-376, 1968.

Taylor, J.
"A Personality Scale of Manifest Anxiety." Journal of Abnormal and Social Psychology, Vol. 48, 285-290, 1953.

Teahan, J.
"A Longitudinal Study of Attitudes Among Black and White Officers." Journal of Social Issues, 1975, 31. (1) 47-56.

Teevan, J., Dolnick, B.
"The Values of the Police: A Reconsideration and Interpretation." Journal of Police Science and Administration, 1973, Vol. 1, No. 3, 366-369.

Territo, L. and Vetter, H.
Stress and Police Personnel. Boston: Allyn and Bacon, Inc., 1981.

Terry, W. C.
"Police Stress: The Empirical Evidence." Journal of Police Science and Administration. Vol. 9, No. 1, 61-75, 1981.

The Surgeon General's Report on Health Promotion and Disease Prevention.
Healthy People. Public Health Service. U.S. Government Printing Office, Washington, D.C., 1979.

Toshi, H.
"A Re-examination of Personality as a determinant of the Effects of Participation," Personnel Psychology, Vol. 23: 91-99, 1970.

Trist, E. and Bamforth, K.
"Some Social and Psychological Consequences of the Long Wall Method of Load getting," Human Relations, Vol. 4, 1-38, 1951.

Trist, E., Higgin, G., Murray, H. and Pollock, A.
Organizational Choice, Tavistock Publications, 1963.

Turner, R. and Killian, L.
Collective Behavior. Englewood Cliffs, New Jersey: Prentice-Hall, 1972.

Walker, S.
A Critical History of Police Reform. Lexington, Mass.: Lexington Books, 1978.

Wambaugh, J.
The Choirboys. New York: Dell Books, 1975.

Warr, P. and Wall, T.
Work and Well Being. Harmondsworth, Middlesex, England: Penguin Books, 1975.

Watson, N. and Sterling J.
Police and their opinions. International Association of Chiefs of Police: Washington, D.C., 1969.

Webster, M. and Sobieszek, B.
Sources of Self-Evaluation: a formal theory of Significant others and Social Influence. ew York: John Wiley and Sons, Inc., 1974.

Wenz, F.
"Death Anxiety Among Law Enforcement Officers." Journal of Police Science and Administration. Vol. 7, No. 2, 230-235, 1979.

Westley, W.
Violence and the Police - A Sociological Study of Law, Custom and Morality. Cambridge, Mass.: The MIT Press, 1970.

White, R.
"Motivation reconsidered: the Concept of Competence." Psychological Review, 66, 197-333, 1959.

Wiechman, D.
"Police Cynicism Toward the Judicial Process." Journal of Police Science and Administration. Vol. 7, No. 3, 340-345, 1979.

Wilensky, H.
"Varieties of Work Experience" in Borrow, H. (Ed.), Man in a World at Work. Boston, Mass.: Houghton-Miftin, pp. 125-154, 1964.

Williams, R.
American Society: A Sociological Interpretation. New York: Knopf, 1951.

Wilson, J. Q.
"Generalization and ethnic differences among career police officers." American Journal of Sociology, 1964, 69, 522-528.

Wilson, J. Q.
Varieties of Police Behavior. New York: Atheneum, 1975.

Wilson, R.
"Proposition 13: Coping with the taxpayer's Revolt." Police Magazine. Vol. 2, No. 2: 49-53, 1979.

Wilt, M. and Bannon, J.
"Cynicism or Realism: A critique of Neiderhoffer's research into Police Attitudes." Journal of Police Science and Administration. Vol. 4, No. 1, 38-45, 1976.

Worchel, P., McCormick, B.
"Self-concept and dissonance reduction," Journal of Personality, 51, 57-60, 1963.

Youngblood, R.
"Self-esteem and Academic Achievement of Filipino High School Students." Education Research Quarterly, 1976, Vol. 1, No. 2, 27-36.

Zimbardo, P., Formica, R.
"Emotional comparison and Self-esteem as determinants of affiliation." Journal of Personality. Vol. 31, 141-162, 1963.

Zuckerman, M.
"The development of an affect adjective checklist for the measurement of anxiety." Journal of Consulting Psychology, 1960, Vol. 24, 457-462.

Appendix A

Research Instruments

(POLICE)

UNIVERSITY OF WASHINGTON
Consent Form
Study of Stress and Strain in Police Work

Principal Investigator:
Ezra Stotland, Director, Society & Justice Program (206) 543-6523
Associates:
Minoru Masuda, Professor, Psychiatry & Behavioral Sciences (206) 543-3768
Phil Spiers, Associate Professor, Epidemiology (206) 543-6394
John Berberich, Affiliate Professor, Psychology (206) 622-2932
Michael Pendleton, Research Assistant, Society & Justice (206) 543-6523

This study concerns stress and strain in the lives of police officers and other municipal employees, and deals with various personal and situational factors which might effect the well being of officers and other employees. Its purpose is to understand stress and strain, so that procedures may be developed to reduce any possible ill effects.

Participation will take no longer than two hours and will take place in a room at your precinct or headquarters, or in the municipal building in which you work, or another near it. Your blood pressure will be measured. And you will take a series of questionnaires dealing with your various work experiences; recent life events, your record of health, your feelings about your self-worth, your perception of your relationship with other people you encounter at work, and your personal goals. Some of the questions will refer to feelings of anxiety and depression that you may have experienced. You are completely free not to answer any questions which you find objectionable and are free to withdraw from the study at any time without any penalty.

Your answers to the questions will be recorded with only your assigned number indicated. The data will then be used only in a statistical fashion, without any identification of individuals in the analysis. Thus the data cannot be used for any departmental, personnel or compensation decision with respect to any individual.

Only two copies of the code associating name and the assigned number will be made. After the data is acquired, one of these codes will be kept under lock and key by the Dean of Arts & Sciences at the University of Washington, the other by the Dean of the School of Medicine of the University of Oregon. They will allow access to it only for statistical research purposes stated in writing, and never for any other reason.

This research project has been issued a Certificate of Confidentiality by the U.S. Department of Health & Welfare, the source of the research funds. This Certificate grants the researchers and the deans authority to withhold any personally identifying information from anyone. It empowers the researchers and the deans to reject any subpoena or other request which requires the presentation of your names or other identifying information to any administrative, civil, criminal or other proceeding. The researchers and the deans can reject subpoenas or other requests from local, state and federal agencies, even after the research project is completed. The researchers and the deans make a commitment to keep names and other identifying information confidential, although the Certificate of Confidentiality does not force them to make this commitment. However, in order to qualify for a Certificate of Confidentiality, we are legally bound to inform you that there are several rare types

of incidents in which the Certificate does not apply: if you agree in writing to disclose your identity; if the Department of Health and Welfare demands to see our records in a rare instance of an audit or program evaluation; if this study had involved information on new drugs, which it does not, and the Food and Drug Administration had requested it. The Certificate of Confidentiality does not represent an endorsement of the research by the Secretary of the Department of Health and Welfare.

If you choose to participate, you will receive a check for two hours work at the time and one half rate, paid directly to you.

If you choose to participate, departmental personnel clerks who normally have access to your folders will record information about your experience in the department. This information will be recorded, by the researchers, rather than the clerks, according to the number assigned to you, and will be treated in the same confidential way as the questionnaire information.

_____ _____
Principal Investigator Date

The study described above has been explained to me, and I voluntarily consent to participate in this study. I have had an opportunity to ask questions.

_____ _____
Signature of Participant Date

Copies to: Subject
Investigators' File

SELF-EVALUATION QUESTIONNAIRE

Developed by C. D. Spielberger, R. L. Gorsuch and R. Lushene

STAI FORM X-1

NAME _____ DATE _____

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you *feel* right now, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

	NOT AT ALL	SOMEWHAT	MODERATELY SO	VERY MUCH SO
1. I feel calm	①	②	③	④
2. I feel secure	①	②	③	④
3. I am tense	①	②	③	④
4. I am regretful	①	②	③	④
5. I feel at ease	①	②	③	④
6. I feel upset	①	②	③	④
7. I am presently worrying over possible misfortunes	①	②	③	④
8. I feel rested	①	②	③	④
9. I feel anxious	①	②	③	④
10. I feel comfortable	①	②	③	④
11. I feel self-confident	①	②	③	④
12. I feel nervous	①	②	③	④
13. I am jittery	①	②	③	④
14. I feel "high strung"	①	②	③	④
15. I am relaxed	①	②	③	④
16. I feel content	①	②	③	④
17. I am worried	①	②	③	④
18. I feel over-excited and "rattled"	①	②	③	④
19. I feel joyful	①	②	③	④
20. I feel pleasant	①	②	③	④

CONSULTING PSYCHOLOGISTS PRESS
577 College Avenue, Palo Alto, California 94306

SELF-EVALUATION QUESTIONNAIRE

STAI FORM X-2

NAME _____ DATE _____

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you *generally* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

	ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
21. I feel pleasant	①	②	③	④
22. I tire quickly	①	②	③	④
23. I feel like crying	①	②	③	④
24. I wish I could be as happy as others seem to be	①	②	③	④
25. I am losing out on things because I can't make up my mind soon enough	①	②	③	④
26. I feel rested	①	②	③	④
27. I am "calm, cool, and collected"	①	②	③	④
28. I feel that difficulties are piling up so that I cannot overcome them	①	②	③	④
29. I worry too much over something that really doesn't matter	①	②	③	④
30. I am happy	①	②	③	④
31. I am inclined to take things hard	①	②	③	④
32. I lack self-confidence	①	②	③	④
33. I feel secure	①	②	③	④
34. I try to avoid facing a crisis or difficulty	①	②	③	④
35. I feel blue	①	②	③	④
36. I am content	①	②	③	④
37. Some unimportant thought runs through my mind and bothers me	①	②	③	④
38. I take disappointments so keenly that I can't put them out of my mind	①	②	③	④
39. I am a steady person	①	②	③	④
40. I get in a state of tension or turmoil as I think over my recent concerns and interests	①	②	③	④

FAMILY LIFE

The following questions have been designed to help us better understand your family live. "Family" is the individual(s) with whom you usually live. If you live alone, consider family as those with whom you now have the strongest emotional ties.

Please check those items that describe your living situation:

___ With spouse and children

___ With spouse

___ With children

___ Unmarried with intimate friend(s)

___ Unmarried with roommate(s)

___ Alone

The number of people in your hosehold not including yourself ____.

For each question, check only one box.

	Almost always	Some of the time	Hardly ever
I am satisfied that I can turn to my family for help when somethin is troubling me.			
I am satisfied with the way my family talks over things with me and shares problems with me.			
I am satisfied that my family accepts and supports my wishes to take on new activities or directions.			
I am satisfied with the way my family expresses affection, and responds to my emotions, such as anger, sorrow, or love.			
I am satisfied with the way my family and I share time together.			

How often do you have a physical or violent argument with your spouse or living partner?

(1) More than twice a day ___
(2) Once to twice a day ___
(3) Nearly every day ___
(4) Three - four times a week ___
(5) Once or twice a week ___
(6) Two or three times a month ___
(7) About once a month ___
(8) Less than once a month, but at least once a year ___
(9) Less than once a year or never ___

If you have children please answer the following: How often do you have a verbal argument with your children?

(1) More than twice a day ___
(2) Once to twice a day ___
(3) Nearly every day ___
(4) Three - four times a week ___
(5) Once or twice a week ___
(6) Two or three times a month ___
(7) About once a month ___
(8) Less than once a month, but at least once a year ___
(9) Less than once a year or never ___

How often do you have a physical or violent argument with your children (not including discipline)?

(1) More than twice a day ___
(2) Once to twice a day ___
(3) Nearly every day ___
(4) Three - four times a week ___
(5) Once or twice a week ___
(6) Two or three times a month ___
(7) About once a month ___
(8) Less than once a month, but at least once a year ___
(9) Less than once a year or never ___

How much of your work experiences do you tell your spouse or living partner about?

A great deal ___ Quite a bit ___ A moderate amount ___ A little ___

None at all ___

How often do you have a verbal argument with your spouse or living partner?

(1) More than twice a day ___

(2) Once to twice a day ___

(3) Nearly everyday ___

(4) Three - four times a week ___

(5) Once or twice a week ___

(6) Two or three times a month ___

(7) About once a month ___

(8) Less than once a month, but at least once a year ___

(9) Less than once a year or never ___

What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion?

(1) Protestant ___

(2) Catholic ___

(3) Jewish ___

(4) None ___

(5) Other _____

If Protestant: What specific denomination is that, if any?

(1) Baptist ___

(2) Methodist ___

(3) Lutheran ___

(4) Presbyterian ___

(5) Episcopalian ___

(6) Other _____

How often do you attend religious services?

(1) Never ___
(2) Less than once a year ___
(3) About once or twice a year ___
(4) Several times a year ___
(5) About once a month ___
(6) 2-3 time a month ___
(7) Nearly every week ___
(8) Every week ___
(9) Several times a week ___

Family Violence Questionnaire

1. How often do you have a physical or violent argument with your spouse or living partner?

   (1) More than twice a day ___

   (2) Once to twice a day ___

   (3) Nearly every day ___

   (4) Three - four times a week ___

   (5) Once or twice a week ___

   (6) Two or three times a month ___

   (7) About once a month ___

   (8) Less than once a month, but at least once a year ___

   (9) Less than once a year or never ___

2. If you have children please answer the following: How often do you have a verbal argument with your children?

   (1) More than twice a day ___

   (2) Once to twice a day ___

   (3) Nearly every day ___

   (4) Three - four times a week ___

   (5) Once or twice a week ___

   (6) Two or three times a month ___

   (7) About once a month ___

   (8) Less than once a month, but at least once a year ___

   (9) Less than once a year or never ___

3. How often do you have a physical or violent argument with your children (not including discipline)?

   (1) More than twice a day ___

   (2) Once to twice a day ___

   (3) Nearly every day ___

   (4) Three - four times a week ___

   (5) Once or twice a week ___

   (6) Two or three times a month ___

   (7) About once a month ___

   (8) Less than once a month, but at least once a year ___

   (9) Less than once a year or never ___

4. How often do you have a verbal argument with your spouse or living partner?

   (1) More than twice a day ___

   (2) Once to twice a day ___

   (3) Nearly every day ___

   (4) Three - four times a week ___

   (5) Once or twice a week ___

   (6) Two or three times a month ___

   (7) About once a month ___

   (8) Less than once a month, but at least once a year ___

   (9) Less than once a year or never ___

5. What is your religious preference? Is it Protestant, Catholic, Jewish, some other religion, or no religion?

   (1) Protestant ___

   (2) Catholic ___

   (3) Jewish ___

   (4) None ___

   (5) Other_____

   If Protestant: What specific denomination is that, if any?

   (1) Baptist ___

   (2) Methodist ___

   (3) Lutheran ___

   (4) Presbyterian ___

   (5) Episcopalian ___

   (6) Other _____

Occupational Alienation Questionnaire

1. In your view, what percentage of departmental procedures are irrelevant to the area which they are intended to impact?

   Percentage _____

2. Generally speaking, how consistent is your working style with the official department procedure?

   Extremely consistent ___ Very consistent ___
   Moderately consistent ___ Inconsistent ___
   Extremely inconsistent ___

3. What percentage of departmental policies are irrelevant to the area which they are designed to impact?

   Percentage _____

4. In general, how much do you agree with departmental policies?

   A great deal ___ Quite a bit ___ A moderate amount ___
   A little ___ Not at all ___

Appendix B

Mean Value Systems and Composite Rank Orders of Values for Hippies, Black Americans, White Americans, Police Supervisors and Patrol Officers

Table 27

Terminal Value Means and Composite Rank Orders for Hippies, Black Americans, and White Americans.

	Hippies n = 78	Black Americans n = 198	White Americans n = 198
A Comfortable Life	14.6 (15)	6.7 (5)	8.6 (7)
An Exciting Life	9.9 (11)	15.2 (18)	15.5 (18)
A Sense of Accomplishment	11.1 (12)	10.1 (11)	9.5 (11)
A World at Peace	5.7 (3)	3.5 (1)	2.8 (1)
A World of Beauty	7.2 (8)	14.0 (16)	13.3 (15)
Equality	6.8 (7)	4.6 (2)	9.8 (12)
Family Security	13.4 (14)	5.0 (4)	3.7 (2)
Freedom	5.1 (2)	4.9 (3)	5.5 (3)
Happiness	6.7 (6)	7.5 (6)	6.9 (4)
Inner Harmony	6.5 (5)	11.0 (12)	10.7 (13)
Mature Love	5.6 (1)	13.5 (14)	12.2 (14)
National Security	16.8 (17)	11.4 (13)	9.2 (9)
Pleasure	12.1 (13)	14.2 (17)	14.4 (17)
Salvation	17.1 (18)	9.3 (9)	7.0 (5)
Self Respect	8.6 (10)	7.5 (7)	8.1 (6)
Social Recognition	15.3 (16)	13.6 (15)	14.3 (16)
True Friendship	7.5 (9)	9.6 (10)	8.6 (8)
Wisdom	6.1 (4)	8.5 (8)	9.5 (10)

Table 28

Instrumental Value Means and Composite Rank Orders for Hippies, Black Americans and White Americans.

	Hippies n = 78	Black Americans n = 198	White Americans n = 198
Ambitious	13.6 (15)	5.2 (2)	6.5 (2)
Broadminded	4.9 (4)	8.0 (8)	8.7 (7)
Capable	10.1 (11)	10.3 (12)	9.0 (9)
Cheerful	9.3 (10)	10.3 (13)	8.9 (8)
Clean	14.7 (16)	5.3 (3)	9.0 (10)
Courageous	8.1 (8)	7.8 (7)	7.8 (5)
Forgiving	8.0 (7)	7.6 (5)	7.0 (4)
Helpful	8.8 (9)	7.6 (6)	8.0 (6)
Honest	4.4 (2)	3.7 (1)	3.4 (1)
Imaginative	4.0 (1)	15.8 (18)	15.1 (18)
Independent	6.4 (5)	10.0 (9)	10.1 (13)
Intellectual	7.7 (6)	12.5 (16)	13.5 (16)
Logical	11.3 (13)	15.0 (17)	14.2 (17)
Loving	4.7 (3)	11.9 (15)	9.0 (11)
Obedient	17.0 (18)	11.5 (14)	13.3 (15)
Polite	15.4 (17)	10.2 (11)	10.8 (14)
Responsive	10.9 (12)	7.5 (4)	6.8 (3)
Self controlled	11.7 (14)	10.0 (10)	9.2 (12)

Table 29

Actual Terminal Value Means and Composite Rank Orders for the Combined Patrol and Supervisory Police Personnel.

Supervisors and Patrol, n = 241		Terminal Values	Patrol, n = 179		Supervisors, n = 62	
Mean Z Scores	Rank Order		Mean Z Scores	Rank Order	Mean Z Scores	Rank Order
51.4	(7)	A comfortable life	51.6	(7)	50.9	(9)
48.6	(11)	An exciting life	48.2	(11)	49.68	(11)
53.4	(5)	A sense of accomplishment	52.5	(6)	55.9	(3)
46.9	(12)	A world at peace	46.6	(12)	47.9	(12)
41.3	(18)	A world of beauty	41.3	(18)	41.1	(17)
43.7	(17)	Equality	43.5	(17)	44.1	(16)
60.0	(1)	Family security	60.0	(1)	60.0	(1)
54.2	(4)	Freedom	54.4	(4)	53.4	(6)
56.2	(3)	Happiness	56.5	(3)	55.4	(4)
53.0	(6)	Inner harmony	52.8	(5)	51.5	(7)
51.4	(9)	Mature love	51.3	(9)	51.5	(7)
44.3	(16)	National security	44.0	(16)	45.0	(14)
46.4	(13)	Pleasure	46.5	(13)	46.1	(13)
44.6	(14)	Salvation	45.9	(14)	40.8	(18)
57.3	(2)	Self respect	56.9	(2)	58.5	(2)
44.5	(15)	Social recognition	44.5	(15)	44.3	(15)
50.8	(10)	True friendship	51.1	(10)	49.7	(10)
51.4	(8)	Wisdom	51.4	(8)	51.3	(8)

Table 30

Actual Instrumental Value Means and Composite Rank Orders for the Combined Patrol and Supervisory Police Personnel.

Supervisors and Patrol, n = 241		Terminal Values	Patrol, n = 179		Supervisors, n = 62	
Mean Z Scores	Rank Order		Mean Z Scores	Rank Order	Mean Z Scores	Rank Order
50.3	(8)	Ambitious	50.4	(7)	49.9	(10)
50.0	(10)	Broadminded	49.8	(10)	50.6	(8)
54.9	(3)	Capable	59.5	(3)	56.0	(3)
47.1	(14)	Cheerful	47.4	(13)	46.3	(15)
43.9	(17)	Clean	44.1	(17)	43.4	(17)
50.8	(6)	Courageous	50.6	(6)	51.4	(5)
47.6	(12)	Forgiving	47.6	(12)	47.5	(13)
48.3	(11)	Helpful	48.1	(11)	48.8	(11)
62.5	(1)	Honest	62.6	(1)	62.2	(1)
44.8	(16)	Imaginative	44.4	(16)	45.8	(16)
50.2	(9)	Independent	50.2	(8)	50.3	(9)
47.5	(13)	Intellectual	47.3	(14)	48.3	(12)
51.8	(5)	Logical	51.8	(5)	51.8	(4)
50.3	(7)	Loving	50.1	(9)	50.6	(6)
40.6	(18)	Obedient	41.1	(18)	39.3	(18)
46.7	(15)	Polite	46.6	(15)	47.1	(14)
58.8	(2)	Responsible	58.7	(2)	59.1	(2)
52.9	(4)	Self controlled	53.7	(4)	50.6	(7)

Appendix C

Multiple Regression Beta Weights and F-Ratios for Professional Life Values and Measures of Individual and Occupational Strain for Police Supervisors and Patrol Officers

Table 31

Multiple Regression Beta Weights and F-Ratios of Professional Life Values and Measures of Mental Health in Police Supervisors and Patrol Officers.

Supervisors, n = 65				Patrol Officers, n = 188			
Terminal Values		Instrumental Values		Terminal Values		Instrumental Values	
CMI-Mental Health				**CMI-Mental Health**			
Freedom		Responsible		Inner Harmony		Imaginative	
-0.21	3.0	-0.25	4.1	0.15	4.5	-0.17	5.4
	(0.08)		(0.04)		(0.03)		(0.02)
State-Anxiety				**State-Anxiety**			
Loving		Honest		True Friendship		Imaginative	
0.24	3.9	-0.25	3.9	0.15	4.0	-0.15	4.0
	(0.05)		(0.05)		(0.04)		(0.04)
				An Exciting Life		Polite	
				0.15	4.2	-0.16	4.3
					(0.04)		(0.03)

Table 32

Multiple Regression Beta Weights and F-Ratios of Professional Life Values and Alcohol Abuse in Police Supervisors and Patrol Officers.

Supervisors, n = 65				Patrol Officers, n = 188			
Terminal Values		Instrumental Values		Terminal Values		Instrumental Values	
Alcohol Abuse				**Alcohol Abuse**			
Pleasure		Helpful		An Exciting Life		Courageous	
0.26	4.4	-0.30	6.1	0.18	6.0	0.21	8.2
	(0.03)		(0.01)		(0.01)		(0.005)
Self Respect							
0.25	4.8						
	(0.4)						
Violence While Drinking				**Violence While Drinking**			
Comfortable Life		Cheerful		---		Imaginative	
0.42	12.8	-0.22	3.2			-0.14	3.3
	(0.001)		(0.07)				(0.06)

Table 33

Multiple Regression Beta Weights and F-Ratios of Professional Life Values and Family Strain Among Police Supervisors.

Police Supervisors, n = 65			
Terminal Values		Instrumental Values	
Family Well-Being			
Self Respect		Imaginative	
-0.28	5.0	0.24	3.7
	(0.02)		(0.05)
Sense of Accomplishment		Intellectual	
-0.25	4.1	0.26	3.9
	(0.04)		(0.05)
Spouse Violence			
Sense of Accomplishment		Forgiving	
0.27	4.6	-0.23	3.3
	(0.03)		(0.07)
Child Violence			
National Security		Imaginative	
0.28	5.1	-0.26	4.4
	(0.02)		(0.03)
Social Recognition		Courageous	
-0.21	2.7	0.25	4.3
	(0.10)		(0.04)

Table 34

Multiple Regression Beta Weights and F-Ratios of Professional Life Values and Family Strain Among Patrol Officers.

Patrol Officers, n = 188			
Terminal Values		Instrumental Values	
Family Well-Being			
Inner Harmony			
-0.17	5.4 (0.02)		
Pleasure			
-0.19	6.4 (0.01)		
Spouse Violence			
True Friendship			
0.17	5.6 (0.01)		
Self Respect			
-0.14	3.6 (0.05)		
Child Violence			
Family Security		Intellectual	
-0.27	13.6 (0.00)	0.27	14.7 (0.00)
		Courageous	
		0.19	7.6 (0.006)
		Imaginative	
		-0.17	5.8 (0.01)

Table 35

Multiple Regression Beta Weights and F-Ratios of Professional Life Values and Physical Health Among Police Supervisors.

Supervisors, n = 65			
Terminal Values		Instrumental Values	
Systolic Blood Pressure			
Inner Harmony		Self Controlled	
-0.27	4.9	-0.33	7.2
	(0.03)		(0.009)
Diastolic Blood Pressure			
		Helpful	
		0.27	4.5
			(0.03)
CMI-Physical Health			
		Forgiving	
		0.28	5.3
			(0.02)

Table 36

Multiple Regression Beta Weights and F-Ratios of Professional Life Values and Physical Health Among Patrol Officers.

Patrol Officers, n = 188			
Terminal Values		Instrumental Values	
Systolic Blood Pressure			
National Security		Independent	
-0.21	8.0 (0.005)	0.16	4.8 (0.02)
A World at Peace			
0.18	5.7 (0.01)		
Diastolic Blood Pressure			
A Comfortable Life		Responsible	
-0.18	5.9 (0.01)	0.20	7.2 (0.008)
Freedom		Helpful	
0.14	3.7 (0.05)	-0.12	2.9 (0.08)
CMI-Physical Health			
		Loving	
		0.16	4.8 (0.02)
		Helpful	
		-0.15	4.3 (0.03)
		Intellectual	
		-0.16	4.6 (0.03)

Table 37

Multiple Regression Beta Weights and F-Ratios of Professional Life Values and Occupational Strain Among Police Supervisors.

Supervisors, n = 65			
Terminal Values		Instrumental Values	
Citizen Complaints			
Family Security		Intellectual	
0.28	5.2	0.31	6.6
	(0.02)		(0.01)
		Obedient	
		-0.23	3.9
			(0.05)
Auto Accidents			
Equality			
0.26	4.6		
	(0.03)		
Freedom			
-0.20	2.5		
	(0.11)		

Table 38

Multiple Regression Beta Weights and F-Ratios of Professional Life Values and Occupational Strain Among Patrol Officers.

Patrol Officers, n = 188			
Terminal Values		Instrumental Values	
Citizen Complaints			
An Exciting Life		Polite	
0.23	10.1 (0.002)	-0.26	12.8 (0.000)
		Courageous	
		-0.19	6.9 (0.009)
		Broadminded	
		-0.14	4.1 (0.04)
		Helpful	
		-0.12	3.0 (0.08)
Auto Accidents			
True Friendship		Courageous	
0.20	7.5 (0.007)	0.23	10.4 (0.001)
An Exciting Life		Cheerful	
0.13	3.2 (0.07)	0.21	8.9 (0.003)
		Clean	
		-0.16	4.9 (0.04)

VITA

Michael Roy Pendleton
9101 Shore Drive
(P.O. Box 80)
Indianola, Washington 98342
(206) 297-4151
(206) 543-6523

Born: May 14, 1948 (Eugene, Oregon)

Education

Ph.D.: 1983, University of Washington
Field: Organizational Psychology
Dissertation: "Police Stress: Value Disparity, Self-Esteem and Occupational Strain"

Master of Science: 1973, University of Oregon
Field: Sociology - Juvenile Corrections

Bachelor of Science: 1971, University of Oregon
Field: Psychology

Fellowships

Sarah Denny, University of Washington, 1979.

W. W. Stout, University of Washington, 1978.

Areas of Academic Concentration

Human Values	Organizational Theory
Self-Esteem	Public Opinion
Leadership	Mass Communication

Areas of Applied Concentration

Criminal Justice	Public Policy Analysis
Occupational Strain	Administrative Practices

Administrative Academic Appointments

Director: Law Enforcement Education Program, University of Oregon 1976-1977.

Academic Appointments

Lecturer: Society and Justice Program, University of Washington 1983 to present.

Teaching Associate: Society and Justice Program, University of Washington, 1978-1983.

Research Associate: Society and Justice Program, University of Washington, 1980-1983.

Research Associate: Institute for the Study of Contemporary Social Problems, Seattle, Washington, 1977 to present.

Research Proposed

Co-Principal Investigator: "Value Enhancement: A Stress Control Program for Police." Three year empirical field study under review by National Institute of Mental Health.

Research Completed

Research Associate: "Police Stress and Strain." Two year empirical field study funded by Department of Health and Human Services for $228,000. One of four principal authors and investigators. University of Washington, 1980 to 1983.

Co-principal Investigator: "Correctional Stress: value conflicts and organizational strain." An unfunded empirical field study of stress and strain among correctional personnel in King and Snohomish County jails, 1982.

Research Associate: "Police, Institutional Racism and Change." A three-year empirical analysis of institutional patterns of racism and strategies for change in five police departments across the United States. Center for Minority Group Mental Health Programs, National Institute of Mental Health, $225,000. Institute for the Study of Contemporary Social Problems, Seattle, Washington, 1977-1980.

Designer/Project Manager: "Survival Techniques of Older Black Americans in Economically Stressful Circumstances." A one-year empirical analysis of the methods used by older Black Americans in Seattle to combat inflation in the areas of housing, energy, food and transportation. Funded by the Administration on Aging, Department of Health and Human Services, $28,000. Institute for the Study of Contemporary Social Problems, Seattle, Washington, 1980-1981.

Director: Of a nine-person research team conducting a law enforcement education review and evaluation. Researching and assessing needs for the University of Oregon, 1976.

Director: Of a six-person research team to conduct an administration of justice program review. An overview and summary of on-site visits to six regional colleges and universities. Researching and assessing needs for the University of Oregon, 1976.

Professional Service

POLICE:

Police Officer: patrol and special details, City of Eugene, Oregon, 1972-1974.

Program Developer: Crisis Intervention Training Program: evaluation and development of training for police/correctional personnel in several law enforcement agencies with Lane County, Oregon, 1975.

Management Consultant: Management-related issues, career and academic development, Eugene Police Department, 1975-1977.

Budget Analyst: Special Budget Review of 1977-78 Police Budget for City Council, Seattle, Washington, 1977.

Research Coordinator: Special needs assessment for Junction City, Oregon, policing style, crime profile analysis and research, 1977.

CORRECTIONS:

Correctional Officer: Member of five-person team to reorganize the Lane County Jail from police operated facility to a civilian correctional facility. Duties included custody activities and program development in areas of medical services, volunteer services, release on recognizance, community relations. City of Engene, Oregon, 1971-1972.

Community Service Program Developer-Manager: Sentencing alternative for low risk offenders, Lane County Department of Public Safety, 1975.

Career Development Position: On a rotation-as-needed basis, served as: 1) Security Release Program Manager--setting of bail; 2) Misdemeanant Probation Counselor. Lane County Department of Public Safety, 1975.

Researcher, "Volunteers in Probation": Developed data base for development of VIP program, Lane County Department of Public Safety, 1975.

COURTS:

Program Developer: Worked closely with District Court Judges of Lane County to develop misdemeanant sentencing alternatives. Lane County Department of Public Safety, 1975.

GENERAL:

Consultant: "Art in Corrections." Professional consultation to the Washington State Arts Commission and the King County Arts Commission on proposed percent allocation for the arts in state and local correctional institutions. 1981-1982.

Criminal Justice Training Workshops and Professional Seminars

Trainer: "Stress management for Correctional Personnel." Development and Delivery of a four-hour course in the Basic Corrections Academy for the Washington State Criminal Justice Training Commission, 1982 to present.

Trainer: "Program Development." Development and Delivery of an eight-hour course in the corrections middle management training program for the Washington State Criminal Justice Training Commission, 1981.

Trainer: "Racial Conflict and Tension in the Correctional Setting." Series of two-day race awareness seminars to train the entire staff of the Washington State Penitentiary in Walla Walla, Washington. Contract given by the State Division of Corrections to the Institute for the Study of Contemporary Social Problems. 1980-1982.

Seminar: "Participatory Management in the Police Organization," Eugene, Oregon Police Department, 1976.

Workshop: "Management by Objectives--A Practical Application." Objective-setting with the management staff of the Eugene City Police Department, 1976.

Workshop: "Police Management--Contemporary Management Theories Applied," University of Oregon, 1976.

Panelist: Conference on Volunteers in Criminal Justice, "The Community Service Program," Oregon Council on Crime and Delinquency, 1975.

Seminar: Crisis Intervention for Police: Practical application for Lane County Police Agencies, 1975.

Publications

"The Myth of Intransigence: An Exercise in Police Organizational Change," Social Development Issues, University of Iowa, 1979.

Michael Pendleton and Edith Green "A review of Psychology and American Law" by Curt Bartol, Journal of Criminal Justice, in Press.

Anticipated Publications

"Police Stress: Value Disparity, Self-Esteem and Occupational Strain"

"Value Change in Correctional Personnel through Race Relations Training"

"Values and Strain in Correctional Personnel"

Personal Interests

Mountain/Rock Climbing
Sailing
Photography