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THE RELATION OF PERSON-ENVIRONMENT FIT TO MEASURES OF JOB SATISFACTION AND ORGANIZATIONAL COMMITMENT FOR VOLUNTEERS IN THE NONPROFIT SECTOR

A Dissertation

Presented in

In Partial Fulfillment for the Degree of

Doctor of Philosophy

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JUNE 1997

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VITA

The author, formerly Amy Joann Carroll, was raised in Grosse Ile, Michigan and was graduated with distinction in 1992 from the University of Michigan with a Bachelor of Art's degree is psychology. She completed her Master's degree in Industrial/Organizational psychology from DePaul University in 1995. The following year she was married and changed her name to Amy Carroll Schoeny. The author is currently employed as a Management Selection Consultant at Advocate Health Care.

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CHAPTER I

INTRODUCTION

Many organizational researchers and practitioners now readily agree that organizations consist of an interaction between individuals and their environments (e.g., Schneider, 1987). Some argue that organizations are best understood through person-related variables which, when examined in interaction with the environment, serve as the basis for organizational structure, processes and technology (Schneider, 1987). In other words, the "people make the place." Organizations, then, must attract, select and retain people who act and interact in ways that direct the organization's activities in ways consistent with its mission or goals (Schneider, 1987). One method used to examine the match between an organization and its members is the notion of person-environment congruence, also commonly referred to as fit. The current research examined the literature on the theory of person-environment fit and applied it in an investigation of a relatively unstudied, yet increasingly important, population --volunteers in nonprofit organizations. Specifically, the relation between person-environment congruence and the outcome variables of job satisfaction and commitment for volunteer employees in nonprofit organizations was explored.

Person-Environment Fit

The theory of person-environment fit, or congruence, was originally proposed as a vocational choice theory originated by Holland (1962, 1973, 1985). In other words, congruence was used to explore individuals' career choices. The theory proposes that both individuals and environments can be classified into types or models. At its most basic level the

theory suggests that both individual and organizational outcomes will be maximized to the extent that there is a fit between the two sets of variables. Pattern-oriented approaches to classification such as that suggested by person-environment fit theory, traditionally labeled "type" theories, comprise the oldest known personality classification systems which have been traced back to the Greek philosopher Galen in the second century A.D. (Gustafson & Mumford, 1995; Hogan, 1991).

The development of the theory of person-environment fit originated from Holland's experience as a vocational counselor. The focus of the theory always was, and is, on pragmatism and practicality of application. The intellectual roots of the theory, however, lie in differential psychology and the measurement of interests and personality. While the typological approach of person-environment fit shares similarities with certain theories offered in the psychological literature (e.g., research on the origin of types from Adler, 1939; Fromm, 1947; or Jung, 1933), it differs primarily in its origin (in this case, largely in the vocational literature) and in its empirical definitions. Person-environment fit is a fulfillment model which assumes that people want to achieve and actualize their talents and interests.

While the specific assumptions associated with the theory will be discussed in a section to follow, Holland originally proposed that the choice of a vocation is an expression of personality, and that the interest inventories frequently employed in vocational studies, therefore, could be used as devices of personality measurement. Through his experiences in the vocational counseling arena, he came to suggest that the stereotypes individuals hold about certain vocations (e.g., lawyers are aggressive or carpenters are handy) have important psychological and social meaning. Further, his work suggested that members of the same vocational group often had similar personality characteristics and histories of personal

development. Due to this similarity, individuals in the same vocation tend to respond to situations and environments in similar ways. These commonalities served as the background against which the theory materialized.

Holland's person-environment fit theory is an attempt to organize a vast amount of information about people and organizations into a classification system that allows for ease in practical application. The theory is considered "structural" or "typological" because it uses a classification system, as well as interactive because both individual and environmental components are thought to act reciprocally upon one another. The idea of assessing environments as well as individual components was not originated with the development of person-environment fit theory. Holland (1985) acknowledged the contributions of a wide variety of authors and theoretical frameworks in the development of the theory. In fact, as far back as the 1940's researchers were suggesting that a major portion of the power exerted by environmental factors results from energies transmitted through the people within them (Holland, 1985); an idea more recently advocated by Schneider (1987). The theory also was influenced by early factor analytic studies conducted by Guilford and colleagues (Guilford, Christensen, Bond, & Sutton, 1954) which resulted in six major factors that accounted for a major portion of individuals' interests and personality traits. Guilford's results parallel Holland's own typology of individuals and environments.

While there have been a number of fit theories proposed in the literature, the best known and most researched has been Holland's conceptualization. The development of Holland's classification system has been continual since 1959. The preliminary framework consisted of an a priori system of six categories, which have since been further defined and confirmed through the explicit statistical analyses of data collected from a wide variety of

occupations. Evidence supporting this classification system has been obtained from convergence of the results of the classification process with other systems, the predictive efficiency of the classification, and the validity evidence related to the assessment instruments themselves (which will be discussed in following sections).

There are four working assumptions that form the basis of person-environment congruence theory: (1) individuals can be classified into six primary types; (2) environments also can be assessed against six primary models; (3) individuals seek congruence in their situations and activities; and (4) behavior results from the interaction of both individual and environmental components. Each of the assumptions is discussed in turn below.

Individual Types

According to person-environment fit theory, individuals can be classified as one of six primary types: Realistic, Investigative, Artistic, Social, Enterprising, or Conventional (Holland, 1962, 1973, 1985). Each of these six types is conceptualized to be a product of a wide array of forces including hereditary factors, peers, culture and the physical environment. From these forces and others, individuals learn to prefer certain activities and experiences. For example, some individuals prefer activities that are social in nature while others prefer more solitary situations. This learning, along with the processes of the individual actually engaging in the activities themselves, eventually leads to the development of specialized competencies associated with these preferences. The resulting competencies influence each person's disposition such that he or she thinks, perceives, and acts in ways consistent with their pattern of learning. Each of the six types, then, has a characteristic set of skills and preferences for coping with different environments. Table 1 summarizes the six types and each is described

individually below.

Table 1: Summary of Holland's Individual Types

Туре	Individuals Characterized As:	Sample Occupation
Realistic	Genuine, Practical, Thrifty, Natural, Asocial	Electrician
Investigative	Analytical, Cautious, Rational, Reserved, Precise	Scientist
Artistic	Complicated, Emotional, Expressive, Intuitive, Open	Writer
Social	Friendly, Generous, Sociable, Persuasive	Salesperson
Enterprising	Adventurous, Ambitious, Extroverted, Self-Confident	Politician
Conventional	Careful, Efficient, Inflexible, Orderly, Persistent	Accountant

Realistic Type. The special forces acting upon an individual with a Realistic type typically result in a preference for the explicit and ordered manipulation of objects, tools, machines and animals as well as an avoidance of activities associated with educational or therapeutic pursuits. These tendencies often lead to competencies in manual, mechanical, agricultural, electrical or technical areas and deficits in social and educational areas. Realistic types are apt to be conforming, genuine, persistent, practical and thrifty.

Investigative Type. Investigative types tend to prefer activities that involve observational, symbolic, systematic and creative endeavors in an attempt to understand phenomena, as well as an aversion to activities that are persuasive, social and repetitive.

These individuals are often thought of as analytical, cautious, curious, reserved and rational.

Artistic Type. As the name implies, Artistic types have a preference for ambiguous,

unconstrained, unsystematized activities that allow free expression. Likewise, these individuals do not favor activities that are ordered, routine, or systematic. Artistic types are often described as complicated, emotional, expressive, idealistic and open.

Social Type. The special experiences and competencies of a Social type lead to these individuals favoring activities in which they are able to train, develop, cure or enlighten others, as well as an avoidance of activities involving materials, tools or machines. Social types are typically thought of as friendly, persuasive, sociable and understanding.

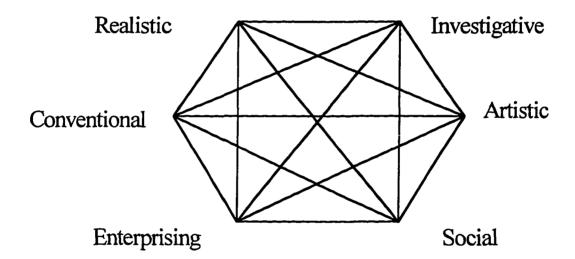
Enterprising Type. Enterprising type individuals are apt to enjoy the manipulation of others to attain organizational goals or economic gain, and an aversion to observational, symbolic and systematic activities. Characteristics commonly associated with enterprising types include ambition, extroversion, dominance and self-confidence.

Conventional Type. Finally, Conventional types are characterized by individuals who prefer the explicit, ordered, systematic manipulation of data and a disregard for activities that are considered ambiguous, exploratory or unsystematized. Conventional types tend to be careful, conscientious, efficient, and methodical.

By comparing an individual's attitudes and characteristics to each of these six types through assessment methods to be described later, it is possible to determine which one type an individual most resembles. In addition to determining this primary type, the total resemblance of an individual to all six types can also be obtained. This pattern of type similarity and dissimilarity to all six types is referred to as the personality pattern (Holland, 1962, 1973, 1985). The interrelations between the types that make up the personality pattern have been conceptualized as a hexagonal model (see Figure 1). The hexagonal model organizes both the individual and environmental types (which will be discussed later) according to their degree of

psychological relatedness. In other words, the spatial distance between two types is directly proportional to the theoretical relationships between them (Holland, 1985). For example, two types that are closely related (e.g., Artistic and Investigative) are shown as adjacent on the hexagonal model. Those types that are most dissimilar (e.g., Enterprising and Investigative) are shown directly across from one another. Studies focusing on the usefulness and validity of conceptualizing these relations according to the hexagonal model have been generally supportive (e.g., Holland & Gottfredson, 1992).

Figure 1: Hexagonal Model of Individual Types and Environmental Models



Assessment of Individual Types. Most assessments of Holland's individual types are conducted using a measure called the Self-Directed Search (SDS). The SDS originally was developed as a self-administered, self-scored vocational counseling tool. To use the SDS, a person typically completes a 228 item assessment booklet which includes items about preferred activities, competencies, and occupational aspirations in all six of the type areas (Holland &

Rayman, 1986). The SDS also includes an occupational daydream section which has been shown to have the most predictive validity of all SDS scales. This daydream section occasionally has been used in isolation to determine Holland typology.

Based on the pattern of scores, a three letter occupational code is obtained which is made up of the three highest scoring subscales of the SDS. This code corresponds to the individual's type and, in the vocational counseling field, then can be used to search for potentially suitable occupations. Occupational searches can include an examination of the corresponding occupational classification booklet that is a part of the SDS materials, or through the use of the Dictionary of Holland's Occupational Codes (DHOC). The DHOC (Gottfredson, Holland & Ogawa, 1982) organizes the traditional Dictionary of Occupational Titles (U.S. Department of Labor, 1977) into an extensive occupational finder with more than 12,000 titles coded in similar three letter combinations. Individuals are encouraged to explore all possible permutations of their three letter codes when searching for potential vocational matches in order to increase the breadth of alternatives considered in their search (Holland & Rayman, 1986).

The use of the SDS in career counseling situations has been found to: (1) increase the number of vocational options a person considers, (2) increase levels of satisfaction with vocational aspirations, and (3) increase respondents' self-understanding (Holland & Rayman, 1986). Several authors, however, have called for future work utilizing the SDS with new topics and populations in order to increase understanding of its usefulness (Holland, 1985; Holland & Rayman, 1986).

There is substantial evidence that the SDS can be interpreted as a useful inventory of personality and values (Holland, 1985). Despite several decades of separate developmental

histories, vocational inventories such as the Self-Directed Search have been shown to be related to other traditional measures of personality (Costa, McRae & Holland, 1984;

Gottfredson, Jones, & Holland, 1993). For example, a joint study conducted by Costa, McRae and Holland (1984) examined the relationship between Holland's individual types and the "Big Five" personality factors. The authors reported that, as expected, extroversion was related to Social and Enterprising types, openness to Artistic and Investigative types, and conscientiousness to Conventional types (Costa et al., 1984). However, the correlations reported for these relations were small to modest in size. Nonetheless, Holland (1985) thought of person-environment fit as a personality theory, and conceived of the six types as representing distinct personality types. In fact, some personality theorists (e.g., Gottfredson et al., 1993) have considered Holland's scheme perhaps the only ongoing and persistent attempt to infer personality structure from the clustering of vocational interests.

Environmental Models

While the first assumption of person-environment fit focuses on the individual level, the second assumption of the theory is concerned primarily with the environment. Human behavior depends on both individual personality and the environment; therefore, individual personality types are supplemented by a similar categorization of environments. Specifically, the theory posits that just as individuals can be classified into the six personality types described earlier, so too can each environmental situation. Therefore, environments are typed similarly into Realistic, Investigative, Artistic, Social, Enterprising and Conventional categories (Holland, 1962, 1973, 1985). Holland's environmental categories, referred to as models, can be classified based on factors such as the proportion of the personality types of the individuals

in the environment, its physical setting, special problems and/or perceived characteristics and opportunities (Holland, 1985). Comparisons can then be made with the characteristics of the six model environments, each of which encourage and reward different characteristics in its members. Each of these environments is described briefly below and summarized in Table 2.

Table 2: Summary of Holland's Environmental Models

Model	Environment Rewards/ Encourages:	Best Described As:
Realistic	Practicality, Thriftiness	Repetitive
Investigative	Abstract Thinking, Analytical Ability	Intellectual
Artistic	Emotional Expression, Idealism, Imagination	Aesthetic
Social	Empathy, Sociability	Supportive
Enterprising	Adventure, Risk-taking	Persuasive
Conventional	Recordkeeping, Organization	Conforming

Realistic Environment. Environments considered to fall in the Realistic category are those in which the major portion of demands and opportunities correspond to the explicit, ordered, or systematic manipulation of objects, tools or machinery. The atmosphere of such an environment typically encourages technical competence and rewards people for the display of conventional values and goods. Human relations are not considered to have primary importance. The environment reinforces and/or rewards traits such as conformity, practicality and thriftiness and may best be described as repetitive or motoric.

<u>Investigative Environment</u>. Investigative environments provide individuals with

opportunities for observing physical, biological or cultural phenomena and foster the people within them to develop scientific competence and achievements while encouraging scholarly pursuits. The intellectual atmosphere rewards abstract thinking as well as analytical traits and tends not to foster leadership or social abilities.

Artistic Environment. Ambiguous, free and unstructured activities proliferate in Artistic environments. The atmosphere encourages expression, intuition and independence of thought and action and rewards those who pursue these goals. An Artistic environment, often described as aesthetic, is characterized as fostering emotional expression, idealism and imagination.

Social Environment. Social environments are characterized by demands and opportunities that foster the manipulation of others to inform, train, develop or enlighten.

These demands and opportunities create an atmosphere of support that encourages social activities and cooperation. People in these environments tend to acquire and be reinforced for traits such as empathy, friendliness, sociability and generosity.

Enterprising Environment. The Enterprising model environment is characterized by a focus on attaining organizational and/or personal goals such as success or wealth. The persuasive atmosphere encourages aggression, leadership and responsibility and reinforces acts of adventure, ambition, self-confidence and energy.

Conventional Environment. Finally, the Conventional, or conforming, environment is one which stresses the explicit, ordered and systematic manipulation of data and business processes. This environment fosters activities such as recordkeeping and organization and focuses on order and efficiency.

Assessments of Environmental Models. While most research on person-environment fit

utilizes some variant of the Self-Directed Search for individual type assessments, the procedures for classifying environments has warranted relatively less attention in the associated research. Holland (1985) suggests the use of the Environmental Assessment Technique (EAT) for the purpose of categorizing the population of any institution or group. The EAT procedure entails taking a census of the occupations, training, or vocational preferences of the entire population of the organization under study (Holland, 1985). These preferences are then classified as belonging to one of the six environmental models. These raw numbers are then converted into percentages of the entire population, which define the profile of the environment in relation to each of the six models. A three letter code, corresponding to the three letter code obtained for individual assessments using the SDS process, results from ranking the three types most represented in the environment. There has been virtually no documented research pertaining to the validity or reliability of this method, and very few studies actually employ this classification process.

In addition to Holland's EAT procedure, a wide range of techniques for classifying environments has been proposed in the literature on person-environment congruence, further limiting understanding of the adequacy of any one categorization process. The literature has included such varied methods as expert judge ratings (e.g., Meir, Melamed, & Dinur, 1995) and supervisors' perceptions of organizational attributes (e.g., Gustafson & Mumford, 1995). The method chosen for each study is generally left to the discretion of the researcher, resulting in no clear consensus on the appropriate procedures by which to assess the environmental models. Further complicating this situation is that many of the techniques employed in this research have serious methodological and/or analytical flaws (e.g., assessments based on singe-item measures). A measurement procedure that addressed these flaws and that included

dimensions commensurate to those obtained in assessments of individual characteristics was employed for this research.

Individuals Within Environments

The two final assumptions of person-environment fit theory are both concerned with the interrelation of individuals and the environment. The third primary assumption of the theory is that because people in each of the six personality types have learned and developed specialized interests, competencies and dispositions, they tend to surround themselves with other people and situations that are congruent with these characteristics (Holland, 1962, 1973, 1985). For example, most people chose to associate with others that have similar interests, backgrounds and values. Individuals are believed to search for work environments that will allow them not only to utilize their skills and competencies, but also to express their personalities (e.g., Social types will seek Social environments; Furnham, & Walsh, 1991). Organizations also are believed to "search" for particular types of employees through mechanisms such as their specific organizational recruitment practices and human resource systems (Bretz & Judge, 1994a). These searching and matching mechanisms, however, are not perfect so that variance in the level of congruence arises from the resulting combinations of individuals and environments.

The fourth and final primary assumption of the theory is that behavior is determined by an interaction between an individual's personality and the environment (Holland, 1962, 1973, 1985). While early models of person-environment fit described a static relationship between the individual and environmental attributes, more recent conceptualizations have considered the ongoing and reciprocal nature of these relationships (French, Rogers, & Cobb, 1974;

Holland, 1985). Individuals may respond to a perceived misfit between their preferences and the conditions in which they are actually found by acting upon their environment and/or attempting to modify their own attributes (Holland, 1985).

Consistency, Differentiation, and Congruence

In addition to the four primary assumptions described above, there are also several secondary concepts that are integral to a complete understanding of person-environment fit theory (Furnham, & Walsh, 1991; Holland, 1985). Three of the secondary concepts most commonly discussed in the literature are consistency, differentiation and congruence.

Consistency. Within an individual or environmental type pattern there are certain combinations that are more similar or dissimilar than others. Consistency is the degree of relatedness between personality types or environmental models (Holland, 1985), as exhibited in the hexagonal model (see Figure 1). For example, Realistic and Investigative types have more in common than Conventional and Artistic types. The degree of consistency between the types or models is assumed to be related to the outcomes discussed above (e.g., vocational choice) such that, in general, higher levels of consistency leads to more predictability, resulting in more positive outcomes (Holland, 1985).

<u>Differentiation.</u> Differentiation refers to the degree of clarity or definition in individual or environmental type patterns (Holland, 1985). For example, when examining the total personality pattern, a person who most closely resembles one type and shows little resemblance to the other five types is considered highly differentiated. On the other hand, an individual who resembles several types about equally well would not be considered highly differentiated. Highly differentiated people or environments are considered highly predictable because of the

close resemblance to the type or model prototype, while undifferentiated types are characterized as quite unpredictable.

Congruence. Finally, the secondary concept of congruence is based upon the belief that each of the individual types requires particular environmental conditions in order for both the individual and environment to flourish (Holland, 1985). Congruence is said to occur when there is a match between the individual's type and the environmental model in which one finds oneself. On the other hand, incongruence is apparent when an individual lives or works in an environment that does not provide the opportunities, experiences or rewards that are preferred (e.g., a Social type in a Realistic environment). Assessments of congruence is frequently the only secondary concept included in tests of the theory.

Assessments of Congruence. There is no universally agreed upon definition of congruence used in studies of person-environment fit (O'Reilly, Chatman, & Caldwell, 1991). In fact, research has noted four distinct perspectives from which fit is addressed. These perspectives include conceptualizing fit as: (1) a match between the knowledge, skills and abilities of an individual and the actual requirements of the job, (2) congruence between individual needs and the organization's reinforcement systems and structures, (3) a match between individual values and organizational culture, and (4) a match between individual personality and perceived organizational characteristics. Due to the lack of a generally agreed upon definition, the conceptualization of this concept has been left to the discretion of each individual researcher. This ambiguity has resulted in a wide variety of congruence measures being used in person-environment fit research (Brown & Gore, 1994). For example, Meir, and colleagues (1995) proposed three separate types of congruence (vocational, leisure, and skill utilization) and suggest that these types may have differential effects on outcomes. Regardless

operationalization of the construct may have compromised previous efforts to test the theory's predictions (Brown & Gore, 1994). Therefore, the mixed results reported by some research on person-environment fit may be due in part to invalid measurement procedures. The wide variability of methods utilized in the research in this area may also impact upon the seemingly inconclusive or contradictory results.

Research comparing the various operationalizations of congruence used in studies of person-environment fit has shown that the measures vary widely in terms of underlying score distribution as well as how the order of the codes are treated (for example, differences between patterns of Realistic-Artistic-Investigative and Realistic-Investigative-Artistic; Brown & Gore, 1994; Sutherland, Fogarty, & Pithers, 1995). Indices that tend to be favored in comparisons among competing operationalizations of congruence are those that discriminate between codes, are concerned with order, are attentive to proximity issues, and employ more sensitive scales (Brown & Gore, 1994). In general, indices that use more information are more successful than simple categorizations of personal and environmental characteristics (Holland, 1987b). After comparing ten competing congruence indices in a simulated design, Brown and Gore (1994) concluded that the use of two indices — the K-P and C procedures — appear to be the most appropriate operationalizations.

The K-P index of congruence (Kwak & Pulvino, 1982) incorporates the actual intercorrelations among the six Holland types into its calculations. This method proposes that first letter matches of person-environment codes are twice as important as matches in the second letters and four times as important as matches between third letters. Scores using the K-P index can range from -1.00 to 1.00, with positive scores indicating progressively higher

levels of congruence than negative or null scores (Brown & Gore, 1994). The C index (Brown & Gore, 1994) is best described as an extension of the first level hexagonal distance measure to additional levels. The C value is obtained for each individual by sequentially comparing the first, second and third letters of the three letter person and environmental codes through a formula developed by the authors. The possible range of scores for C is from zero to eighteen, with higher scores indicating higher levels of congruence.

Once some measure of congruence is obtained, a separate decision is left in choosing an appropriate analytic strategy for exploring the relation between fit and the outcome variables included in the research design. For decades the primary means of analyzing congruence data has been based on a strict reliance on the use of difference scores. Analyses generally consist of algebraic, absolute or squared differences between two component measures, or the sum of absolute or squared differences between profiles of component measures (Edwards & Parry, 1993). In most cases, these difference scores are then used as a predictor variable for a variety of outcome measures (Edwards & Parry, 1993).

Difference scores are most frequently used as a predictor variable in regression equations in order to forecast a variety of outcomes. An alternate approach to traditional regression procedures uses moderated regression, but enters the individual and environmental components first before examining the incremental contribution of fit through the interaction effect (Hesketh & Gardner, 1993). Bretz and Judge (1994a) found that the amount of variance accounted for using an analysis procedure such as this increased as a result of adding the interaction effect into the regression equation.

While the use of difference scores has been common, the process is not without controversy. Some researchers (e.g., Edwards, 1991) have argued that difference scores used

in these regression procedures fail to control for the independent effects of individual and environmental variables (Bretz & Judge, 1994b). Ferguson and Takane (1989) further argue that difference scores can be unreliable and should be used with caution. Therefore, a variety of alternate analytical procedures have been proposed for the assessment of personenvironment fit relationships.

In response to criticisms associated with a reliance on traditional regression equations, Edwards and Parry (1993) proposed the use of polynomial regression equations. Polynomial regression produces three dimensional spatial maps in which researchers can investigate outcome relationships at various levels of the person and environmental variables. However, although the merits of polynomial regression have been described extensively elsewhere (e.g., Edwards & Parry, 1993), this process is seldomly used because of difficulties in interpreting the obtained coefficients.

Several authors have suggested the use of a pattern approach to analyzing congruence effects. A pattern approach is similar to the assessment classification approach frequently used in biodata research (Gustafson & Mumford, 1995) in which cluster analysis is used to group together homogenous subgroups of individuals who exhibit similar patterns of responses. Interpreting patterns in this type of analysis allows researchers not only to examine both the level and shape of the resulting clusters, but also can avoid some of the pitfalls associated with interpreting correlation coefficients used in other methods (Gustafson & Mumford, 1995). Pattern approaches have been utilized in person-environment fit research as an effort to match people with jobs (e.g., Schoenfeldt, 1974).

Irrespective of the congruence index and analytic strategy chosen for the study of person-environment congruence, several broad guidelines have been proposed for future

research (Holland, 1985). These guidelines include identifying potential moderator variables (e.g., sex, age, education level, and socioeconomic status), giving as much attention to the measurement and operationalization of the environmental attributes as is given to individual components, and employing more recent techniques for estimating congruence (e.g., utilizing the K-P procedure or C method). In addition, both personal and environmental components should be measured using commensurate dimensions when possible and appropriate (Caplan & Harrison, 1993).

While the theory has generated a vast amount of research on the topic of fit and most results have been generally supportive, there have been criticisms of the theory. Two primary complaints have focused on a lack of developmental context, and problems in the application of the theory for women (Holland, 1987a). Holland (1987a) has countered these criticisms with claims that since the inception of the theory some thirty years ago, the developmental aspects of the theory have been continually expanded and updated. In addition, some research has suggested that gender differences are trivial and that the application of the theory to women and men of different ages has shown that the theoretical predictions work about equally well for both groups (Holland, 1987a). Nonetheless, a variety of authors suggest attentiveness to characteristics such as age, sex, and social class which can influence the choice and progression of careers and other organizational outcomes in powerful ways (Holland, 1985, 1987a). Boundary conditions of both the individual and environment (such as age or gender segregation) can influence the types of careers that individuals are willing to consider (Gottfredson, 1981). Therefore, measures of these variables should be included in any personenvironment fit study (Holland, 1985).

While there have been more narrowly defined fit theories conceived in the specific areas of job choice (Hackman & Oldham, 1980a), work adjustment (Dawis & Lofquist, 1984), climate (Joyce & Slocum, 1984) and culture (O'Reilly et al., 1991), Holland's personenvironment fit theory by far has garnered the most attention. Person-environment fit has served as the foundation of modern vocational choice theory and research (Gustafson & Mumford, 1995). More recently the theory has been applied within organizational settings (e.g., Kulik, Oldham, & Hackman, 1987) in such traditional industrial/organizational psychology arenas as selection, job satisfaction, organizational entry and socialization (Hesketh & Gardner, 1993). A discussion of the accumulated research in support of personenvironment fit theory follows.

Research Support

Once both individual types and environmental models are known, it is possible to use this information to forecast possible outcomes of such a pairing. Holland's (1973, 1985) vocational behavior theory posits that satisfaction, stability and achievement depend on the congruence or fit between one's personality and the environment in which one works. Most research conducted to test the model has shown that outcomes of satisfaction, stability and achievement are positively related to congruence. However, the magnitude of the correlations between fit and these outcomes has varied considerably. While some authors argue that congruence can have a powerful effect (e.g., Holland, 1987b), the majority of studies investigating the model have resulted in relatively small correlations (e.g., Meir et al., 1995). These findings have led some to refer to person-environment fit results as being bounded by a

"magic .3 plateau", as most correlation coefficients reported are at or below this level (Meir et al., 1995). In a meta-analysis of the congruence literature, Assouline and Meir (1987) indicated that with appropriate breakdowns the correlations between vocational congruence and satisfaction can reach as high as the .40's. Correlations obtained in this meta-analysis between fit and measures of satisfaction, stability and achievement were reported to be .21, .15 and .06, respectively (Assouline & Meir, 1987).

While most findings have been generally supportive of the tenets of congruence theory, the wide range of theoretical perspectives from which congruence is assessed, differing research procedures, strategies and assessment techniques included in typical research designs have resulted in only a small number of comparable studies on which to base firm conclusions regarding the adequacy of the theory (Holland, 1987b). Most early studies on personenvironment congruence were devoted solely to tests of Holland's theory, and included limited dependent variables (e.g., career choice and job tenure). More recent research has begun to investigate the relation of congruence to various other dependent variables.

Perhaps more than any other outcome in recent research on person-environment fit, a wide variety of studies have explored the relationship between congruence and job satisfaction. In general, most research reports positive relations between fit and satisfaction (Sutherland et al., 1995), although several studies have reported that the level of satisfaction did not vary according to congruence level (e.g., Smart, Elton & McLaughlin, 1986). Even when positive results are reported, however, the magnitude of the relation between fit and satisfaction has fluctuated.

Spokane (1985) reported that higher congruence was significantly related to greater job satisfaction. However, this finding is cautioned because the studies on the relationship

between congruence and job satisfaction examined by Spokane (1985) typically included only single occupational groups, focused only on measures of overall job satisfaction and failed to control for other correlates of satisfaction (e.g., age, socioeconomic status). While most research on the fit-satisfaction relationship utilizes general satisfaction measures, some authors have examined faceted measures of satisfaction. For example, Mount and Muchinsky (1978) found that the congruence-satisfaction relation was not equally valid for each of Holland's six types when utilizing the five subscales of the Job Description Index. Their results, however, were based only on a one-item self-report measure of congruence, so definitive conclusions cannot be made regarding the influence of fit on job satisfaction (Smart et al., 1986). Hesketh and Gardner (1993) showed that fit improved the prediction of job satisfaction for thirteen of twenty-one satisfaction attributes included in their study, even after controlling for the direct effects of job preferences (the person attributes) and job perceptions (the environmental attributes). For the remaining eight job satisfaction indices, satisfaction was predicted primarily from job perceptions. These eight attributes, however, were those that are normatively desirable (e.g., friendly relations with coworkers; Hesketh & Gardner, 1993). Taken together, this evidence suggests that future work should continue to explore the relation of fit to faceted measures of satisfaction.

Congruence level has been more useful in predicting job satisfaction than outcomes such as achievement or effectiveness (Holland, 1987b; Kulik et al., 1987). For example, while Bretz and Judge (1994b) found that person-environment fit explained additional variance in tenure and job satisfaction beyond the effects of other variables, the effect was more powerful for job satisfaction. Explanations for the finding that job satisfaction is more predictable than other outcomes include suggestions that: (1) congruence plays only a small role in other fit-

outcome relationships, (2) key personal or environmental variables are not known or used appropriately, and/or (3) other outcomes are difficult to assess with reliability and validity (Holland, 1987b). The specific nature of the congruence-satisfaction relationship may also be somewhat different for males and females. In a related study, Smart et al. (1986) reported that intrinsic satisfaction was significantly and positively related to person-environment congruence for both sexes. However, congruence was related to overall satisfaction only for females and to extrinsic satisfaction only for males (Smart et al., 1986). Future research on congruence and satisfaction, therefore, need be attentive not only to multiple dimensions of satisfaction but to a consideration of gender as well (Smart et al., 1986).

Organizational commitment, which will be discussed in more depth in a section to follow (beginning on page 30), also has been explored as a potential outcome of person-environment congruence. This relationship, like that of fit to satisfaction, has not resulted in definitive conclusions. While some studies have found congruence to be related to organizational commitment (e.g., Stumpf & Hartman, 1984), others have found congruence measures to be useful for predicting job involvement but not commitment (Blau, 1987). A study conducted by O'Reilly, Chatman, and Caldwell (1991) found that fit was related to some aspects of commitment (e.g., value-based measures) but not others (e.g., instrumental or compliance-based measures).

In addition to job satisfaction and commitment, other authors have investigated the influence of human resource systems on perceptions of person-environment fit. These authors (Cable & Judge, 1994) suggest that human resource systems and procedures are initially the most visible and observable aspects of the organization which can give important cues to potential employees about the culture of the organization. The perceived fit of the individual's

values and perceptions of the organization based upon these cues has effects on organizational attraction and self-selection (Cable & Judge, 1994; Schein & Diamante, 1988). For example, Cable and Judge (1994) found that job search decisions and preferences for certain compensation policy attributes (e.g., rewards based on merit) were dependent upon the job seekers' dispositional characteristics. Organizations, then, should examine the extent to which they are attracting individuals whose personalities and styles of behavior match the needs and demands of the work environment (Schein & Diamante, 1988), and where necessary make the appropriate changes to attempt to ensure a more congruent situation.

Stress and strain have been shown to be inversely related to measures of fit (Sutherland et al., 1995). However, this relation has held stronger for certain measures of stress such as responsibility, role insufficiency and aspects of the physical environment (Sutherland et al., 1995). Congruence has also been significantly and positively correlated with measures of absenteeism and significantly and negatively correlated with self-reports of frustration level (Furnham, & Walsh, 1991). Furthermore, Bretz and Judge (1994b) found that individuals who were judged to be congruent with their environments differed from those who were incongruent on three of four measures of career success (salary, job level and satisfaction).

What is clear from this summary of research findings on congruence is that additional work is needed, taking into account all of these results in order to develop a more comprehensive understanding of these complex relationships. In addition, much of the research outlined above has called for replications and extensions of the results utilizing different population samples, which is directly addressed in the present research. This study investigated the nature of the relationship between person-environment fit and two outcomes—job satisfaction and organizational commitment for volunteers in the nonprofit sector. Before

outlining the specific hypotheses of this study, it is first necessary to provide an overview of the two outcomes central to the investigation, as well as of the population of interest -- the volunteer staff of nonprofit organizations.

Job Satisfaction

Job satisfaction has been defined as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experience" (Locke, 1976). Some authors have used the terms job satisfaction and job involvement interchangeably. However, in comparison to job involvement, which is more generally associated with a cognitive belief state reflecting a level of identification, job satisfaction is an affective response to a specific job or task (Brooke, Russell & Price, 1988). These two outcomes, in fact, have been shown empirically to be distinct constructs (Brooke et al., 1988). Locke (1976) argued that personal interest in the work itself is among the most important factors leading to job satisfaction; a sentiment similar to a key tenet of person-environment congruence theory.

Job satisfaction and life satisfaction are positively and reciprocally related, although the influence of life satisfaction on job satisfaction is significantly stronger than the influence of job satisfaction on life satisfaction (Judge & Watanabe, 1993). Influences impacting upon life satisfaction include such factors as age, race, sex, marital status and health. Factors influencing job satisfaction include variables such as education level, number of hours worked, wage rate, intrinsic factors, promotional opportunities and working conditions. Glisson and Durick (1988) found that the best predictors of job satisfaction are skill variety and a lack of role ambiguity.

Job satisfaction has been one of the most widely researched topics in the organizational

sciences. The proliferation of work in this area may be due in part to early suggestions that higher satisfaction should lead to higher organizational productivity; in effect that happy workers are productive workers. A preliminary review that examined the relationship between satisfaction and performance reported the correlation between the two constructs to be only .14 (Vroom, 1964). Several decades later, through the use of more sophisticated meta-analytic techniques as well as a much larger number of studies, an extremely similar relationship of .146 was obtained (Iaffaldano & Muchinsky, 1985). While most authors agree that the relationship between satisfaction and performance is positive (e.g., Petty, McGee & Cavender, 1984), the magnitude of the association between the two is much weaker than originally believed.

Role ambiguity has been suggested as an influence on job satisfaction. Studies examining this relationship have reported the association to be moderate and negative, regardless of the measures used. Abramis (1994) found that role ambiguity explained about nine percent of the variance in job satisfaction levels. Effective organizational communication has also been offered as an important influence on job satisfaction. Some authors have hypothesized that communication characteristics were simply one dimension of overall satisfaction. However, Gregson (1990a) found through factor analysis that subjects discriminated between measures of job satisfaction and communication effectiveness, suggesting that the two are separate constructs. In general, the relation between communication and satisfaction is positive such that more and better communication is typically associated with higher reported levels of satisfaction (Gregson, 1990a).

Job satisfaction has been linked with tenure and turnover outcomes. In a study examining specific facets of satisfaction, Gregson (1990b) found that there was a positive association between tenure in the organization and satisfaction with pay and rewards, such that

higher satisfaction with pay was associated with longer tenure. In addition, satisfaction with the work itself was the dimension most predictive of turnover (Gregson, 1990). Research has typically shown the relation between turnover and satisfaction to be significant and negative, with the obtained correlation coefficients usually less than .4 (Mobley, 1977). In a proposed model of satisfaction and turnover, Mobley (1977) hypothesized that there are many intermediate linkages between satisfaction level and turnover that account for this relatively low coefficient (e.g., intention to leave, search for alternatives, etc.).

Explanations for the relatively low correlations obtained between job satisfaction levels and some outcome variables such as those described above include the presence of moderator variables as well as other potential predictors. For example, some have suggested that sex is an important moderator in job satisfaction research. While several authors have proposed that men in general are more satisfied than women (e.g., Judge & Watanabe, 1993), others have reported that managerial men and women in the United States do not differ significantly in their sources of satisfaction at work (Mason, 1995). When examining specific facets of satisfaction, Gregson (1990b) found that promotion was the only dimension that differed significantly by sex such that women were generally less satisfied with the promotional opportunities available to them at work. Other variables offered as potential moderators have included job type, amount of participation in decision making, and social support. In addition, stronger associations have been reported between an individual's job satisfaction and job performance at higher organizational levels that may indicate the relationship is moderated by job level (Petty et al., 1984).

While some authors have suggested that individual worker characteristics do little to help predict levels of satisfaction (e.g., Glisson & Durick, 1988), others believe individual

differences are crucial contributors to job satisfaction. Negative affectivity, defined as a stable and pervasive individual difference characterized by a tendency to experience aversive emotional states (Levin & Stokes, 1989), is one such individual difference that has been investigated in this light. Levin and Stokes (1989) found that while negative affectivity is associated with job satisfaction, the relation is not especially strong. These authors concluded that personal dispositions may have only a small effect on reported levels of satisfaction.

Other researchers interested in the impact of individual differences on satisfaction have explored the influence of genetics and hereditary factors. This argument holds that certain individuals are genetically prone to experience higher levels of satisfaction, while others may be less generally satisfied, regardless of external factors such as working conditions. In their study of monozygotic twins reared apart, Arvey, Couchard, Abraham and Segal (1989) reported that up to thirty percent of the total variance in both intrinsic and general satisfaction outcomes may be explained by genetic makeup. This finding has major implications for organizations. If the importance of genetic factors is indeed a crucial determinant of satisfaction, employers may have less control over worker satisfaction once they enter the organization than initially thought. This suggests an added importance of attracting, selecting and retaining individuals who "fit" into a particular organizational environment, a proposition strongly advocated by person-environment congruence theory.

As previously mentioned, person-environment fit theory posits that satisfaction is a key outcome resulting from a fit between an individual and their environmental circumstances (Holland, 1985). Abel-Halim (1981b), in fact, reported that misfit results in lower correlations with job satisfaction. In a longitudinal investigation of congruence and satisfaction, Fricko and Beehr (1992) reported that subjects' congruence between their college major and current job

was significantly related to satisfaction, although congruence between interest inventory responses and current job was not related to satisfaction levels. These findings certainly suggest further attention be given to this relationship.

There are two general approaches to the measurement of job satisfaction: general and faceted measures. General job satisfaction scales are those that are used to estimate the respondents' overall feelings about their job (Ironson, Smith, Brannick, Gibson, & Paul, 1989). In contrast, faceted measures of satisfaction are those that are used to differentiate certain key aspects of the work environment (e.g., pay or supervision; Ironson et al., 1989). The choice between the two approaches is determined by the purpose of the research. General satisfaction measures are best for predicting general affect, while faceted measures are most useful for diagnosing particular high and low areas of satisfaction (Ironson et al., 1989). A wide variety of measures of satisfaction can be found in the literature. These methods have included the Quality of Employment Survey (Quinn & Shepard, 1974), the Job Diagnostic Survey (Hackman & Oldham, 1980b), the Minnesota Satisfaction Questionnaire (Weiss, Dawis, England & Lofquist, 1967), the Job Diagnostic Index (Smith, Kendall & Hulin, 1969), and a host of other measures developed by individual authors for specific research focuses.

Organizational Commitment

The topic of organizational commitment has received widespread attention from both social scientists and practitioners alike. Mowday, Steers and Porter (1982) define organizational commitment as the "relative strength of an individual's identification with and involvement in an organization." This definition implies three primary factors: a belief in the organizations' goals, a willingness to exert effort on behalf of the organization, and a desire to

maintain membership (Mowday et al., 1982). Similarly, others believe the construct is influenced by factors such as compliance, identification and internalization (Hunt & Morgan, 1994).

Early conceptualizations of commitment were viewed from a behaviorist perspective. The behaviorally-based view of commitment suggested that employees make investments in their work (e.g., through tenure or work relations) that are exchanged with employers for outcomes such as pay and benefits (Akhtar & Tan, 1994). To the extent that this exchange is perceived as fair, commitment was thought to result. More recently, Eisenberger, Huntington, Hutchinson and Sowa (1986) advocated a similar social exchange view of commitment suggesting that employees who felt support from the organization were more likely to feel a reciprocal sense of commitment to their employers. Viewing the construct through a purely behaviorist lens, however, has been heavily criticized due to the purely instrumental nature of its conceptualization.

In response to early criticisms of the behaviorist perspective, researchers have proposed alternative views. For example, Etzioni (1961) proposed a construct of moral commitment that was defined by an employee's internalization of norms and identification with organizational authority. More recently, research has investigated commitment from both behavioral and attitudinal viewpoints. This work posits that commitment is not a unitary concept, instead hypothesizing that there may be different forms or types of commitment.

Allen and Meyer (1990) proposed a three component view that conceptualized commitment as a desire (affective commitment), a need (continuance commitment), and an obligation (normative commitment). Others have identified similar dimensions of commitment (affective, continuance and moral) to explore the commitment-turnover association (Jaros, Jermier,

Koehler, & Sincich, 1993). Results of the Jaros et al. (1993) study indicated that the three dimensions had differential effects on the nature of the commitment-turnover relationship. Most contemporary research on commitment utilizes a combination behavioral-attitudinal model similar to that proposed by Allen and Meyer (1990) or Jaros and colleagues (1993). Irrespective of one's conceptualization of the construct, commitment has been shown to be a relatively stable attitude (Cohen & Gattiker, 1994) that has implications both for the individual employee and organization alike (Zeffane, 1994).

Organizational commitment has been examined in relation to a number of outcome variables that encompass both individual and organizational outcomes. The relationship between commitment measures and job satisfaction has been one link closely examined in the literature. The two constructs have, however, been shown to be separate (Brooke et al., 1988). While commitment is concerned with attachment to the organization's goals and values, satisfaction focuses on the specific task environment and job duties performed by the employee (Glisson & Durick, 1988). The correlation between satisfaction and commitment has been reported as high as .64 (Glisson & Durick, 1988). However, Tett and Meyer (1993), through a path analytic procedure, reported that job satisfaction and organizational commitment each contribute independently to turnover prediction. While there is a relatively low correlation reported between commitment and income (r=.19; Cohen & Lowenberg, 1990), the relation between commitment and pay satisfaction is stronger (r=.31; Mathieu & Zajac, 1990). There has been some disagreement among researchers as to the nature of the causal ordering between satisfaction and commitment. That is, there is no consensus on whether increased satisfaction results in higher reported commitment level or vice versa.

Measures of work commitment have been used to predict outcomes such as employee turnover, turnover intentions, performance, organizational citizenship behavior and absenteeism (Cohen, 1995). Commitment has also been linked to the amount of effort exerted and employment tenure (Neale & Northcraft, 1990). The amount of organizational support perceived by the employee is one characteristic thought to affect work commitment levels (Cohen, 1995).

Many organizations believe that in order to achieve a successful workplace, they must try to instill a sense of commitment in their employees. Therefore, a number of possible antecedents of commitment have been examined. Neale and Northcraft (1990) identified three primary categories of antecedents that influence commitment: personal, organizational and nonorganizational factors.

Personal characteristics such as values and personality have frequently been cited as crucial precursors to commitment. Knoop (1994) suggested that personal values such as esteem and achievement are significantly related to commitment measures. In fact, work values accounted for over seventy percent of the variance in organizational commitment for a sample of nurses, with pride in the organization being the best predictor (Knoop, 1994). While tenure has often been mentioned as an outcome of high commitment, it has been offered as an antecedent to commitment as well. For example, Zeffane (1994) reported that employees with higher tenure also report higher organizational commitment levels. These results support assertions that organizational commitment is likely to increase when employees feel as though the organization views them as valued resources and not simply as business commodities (Zeffane, 1994).

Organizational factors are also important influences on employees' commitment (Neale & Northcraft, 1990). Instilling a foundation of commitment in employees has been suggested as one of the most central functions of organizational socialization (Schein, 1985). Organizations can play a powerful force in shaping commitment levels through such means as improving the organization's social atmosphere and creating a common sense of purpose (Zeffane, 1994). Strong organizational value systems are frequently associated with employees who exhibit high commitment levels due to the internalization of and identification with the organization's goals and values. Recent research has also highlighted the importance of management characteristics, suggesting that the flexibility and adaptability in managerial style can have a significant impact on reported commitment (Zeffane, 1994). The visibility, explicitness, irreversibility and volition associated with job tasks and work behaviors also impact upon resulting commitment levels (Neale & Northcraft, 1990). Organizations, then, may have a large part to play in influencing the commitment exhibited by their employees, and so have a vested interest in trying to maximize those levels. In an investigation of task, organizational and personal factors, Glisson and Durick (1988) found organizational characteristics to be the strongest predictor of resulting commitment.

The influence of non-work factors on organizational commitment has been less researched than the aforementioned personal and organizational characteristics. Non-work factors may include such things as participation in religion, family obligations, or hobbies.

Some authors have proposed that favorable experiences outside of work can be associated with enhanced organizational commitment and vice versa (Cohen & Kirchmeyer, 1995).

Nonwork factors may positively impact work situations to the extent that they are perceived as enriching an employee's resources for work as opposed to detracting from that situation

(Cohen & Kirchmeyer, 1995). Nonwork domains affect all commitment forms, particularly organizational commitment (Cohen, 1995).

With the increasing interest in the dimensionality of the commitment construct, research has also begun to explore the possibility that there may be differential antecedents for the separate commitment dimensions. For example, Mottaz (1988) reported that intrinsic factors, such as challenge, tend to be more important than extrinsic factors, such as pay, on levels of affective commitment. Continuance commitment measures seem to be influenced by perceptions of an employee's past contributions, although these perceptions do not appear to affect other dimensions of commitment in a similar fashion.

Early factor analysis studies of commitment generally supported a one factor solution that accounted for ninety percent of the variance or more (Akhtar & Tan, 1994). These results were questioned, however, with the growing recognition of the multidimensionality of organizational commitment. One explanation for the preponderance of one factor solutions was that the overlapping content of the items (especially those in the most widely used measure of commitment, the Organizational Commitment Questionnaire) gave rise to a single dimension solution. In addition, factor analysis studies often relied on orthogonal models in which the dimensions are assumed to be uncorrelated. More recently, Allen and Meyer (1990) subjected data collected from over four hundred subjects on the Organizational Commitment Questionnaire (OCQ) to a factor analysis using an oblique rotation and found support for a three factor solution that paralleled their proposed dimensions of affective, normative and continuance commitment. In addition, factor analytic research utilizing nine samples of over 2700 cases supported a three dimensional solution (Dunham, Grube & Castaneda, 1994).

These dimensions parallel Jaros et al.'s (1993) affective, moral and continuance dimensions.

Taken together, these results call for further work investigating the multidimensional nature of commitment.

The majority of research on the measurement of commitment has focused on the discriminant validity of various measures. The most widely used measure of commitment has been the Organizational Commitment Questionnaire (Porter, Steers, Mowday, & Boulian, 1974). The instrument contains a total of fifteen items, nine of which are worded positively and six negatively. Respondents are asked to respond to items by indicating their answers along a continuum that ranges from strong agree to strongly disagree. Although it is frequently employed in examinations of commitment and the authors have reported adequate reliability and validity associated with the questionnaire (e.g., Mowday et al., 1979), the measure has come under criticism in recent years. As a response to these criticisms, many researchers choose to utilize alternative measures of commitment. Jaros and colleagues (1993) utilize a three dimensional assessment instrument that includes 21 items that tap the dimensions of affective, continuance and moral commitment.

Although many studies employ some variant of either the OCQ or an instrument similar to that employed in Jaros et al.'s study, Morrow and McElroy (1993) have argued that inferior and/or homemade measures of organizational commitment are still commonplace in the literature on commitment and limit our understanding of the construct. This study aims to address this situation by carefully investigating the facets of an established measure of organizational commitment in relation to person-environment fit theory. Before outlining the specific research questions addressed in this study, it is first necessary to provide an overview of the population of organizations and research participants that will serve as the focus of the work.

Nonprofit Organizations and Volunteers

Voluntary, or nonprofit, organizations proliferate in the United States and include such diverse groups as churches, homeless shelters and professional associations. Some have suggested that nonprofit organizations (commonly referred to as the Third Sector) will play an ever-increasing role in society as a result of diminishing opportunities afforded by the public sector and fundamental changes in private markets (Rifkin, 1995). There are a variety of ways to define nonprofit organizations, but most do so according to the terms of the Internal Revenue Service's tax codes. Nonprofit organizations are tax-exempt agencies wherein the beneficiary of the organization's activity is the public, not the members of the organization itself. In other words, no part of the organization's net earnings goes to the benefit of any private shareholder or individual. Nonprofit status is generally classified according to formal tax-exemption status, as granted by the IRS; that is, the organization is granted 501(c)(3) status as a charitable nonprofit. Statistics have suggested that nonprofit service organizations have grown so much that as a whole they now may employ more numbers than the public sector (Drucker, 1978). Interestingly, however, relatively little research in the organizational sciences has specifically addressed this growing population.

While nonprofit and for-profit organizations may share certain characteristics, few would disagree that the two sectors differ in important ways (Levinson, 1987). For example, Levinson (1987) suggested that nonprofits are frequently smaller in size than for-profit organizations, have more complex interpersonal environments because individuals often perform in multiple roles, exist in environments of financial uncertainty and instability, and often are driven by a bottom-line of altruism. While the reliance for services provided by nonprofit organizations has been heightened in recent years, this increase has not been met by a

commensurate raise in funding. In times of governmental funding cutbacks and increased competition for available donor dollars and volunteer services, nonprofits must find ways to do more with less. One important way in which some, if not most, nonprofits survive is through the use of volunteer resources.

Many nonprofit organizations must rely primarily on volunteer staffing because of a funding crisis that exists in the Third Sector. In fact, the nonprofit sector would not exist as we know it were it not for the volunteer pool (Drucker, 1978). Volunteers are, therefore, a critical and fundamental human resource in these organizations. Some nonprofits employee paid staff members whose primary tasks are the recruitment, scheduling and supervision of volunteer members, based on a belief that the cost of the paid staff member is more than compensated for through the efficient and effective utilization of a volunteer workforce.

Volunteers have been defined as individuals "who contribute services without financial gain to a functional subcommunity or cause" (Henderson, 1985). The number of adults in this country who report that they have participated in volunteering has varied somewhat from study to study. A 1983 Gallup survey of a random sampling of Americans found that approximately 55% of those polled had volunteered in the previous year. A similar poll commissioned by the Independent Sector (1985) just two years later reported 48% of Americans over the age of fourteen volunteered at some time within the twelve months preceding the study. The number of individuals who belong to voluntary organizations as been under some debate. Some research (e.g., Putnam, 1996) has argued that the numbers of Americans who participate in politics, traditional women's groups, fraternal and service organizations have declined over the past several decades. At the same time, however, membership in large-scale organizations (such as the American Association of Retired Persons), where there is little if any direct social

contact and often times the only act of membership consists of writing a dues check, has increased steadily. These groups, it is argued, play a much different role in our society than has been typically seen by Third Sector organizations. Regardless of the specific figures cited on participation in nonprofit organizations, it stands nonetheless that significant numbers of American adults devote some time in a volunteer capacity each year.

In the past, traditional volunteers were often women who were not employed outside the home. With the growing numbers of women in the workplace, as might be expected, the number of these "traditional" volunteers has dwindled. In fact, working people -- both men and women -- are now the fastest growing segment of the volunteer population (Wilson, 1984). The changing nature of the nonprofit workforce in addition to increased mobility and the individualizing of leisure and recreation activities (e.g., increased use of personal computers) has important implications for organizations who now must look for ways to attract, select and retain volunteers who are simultaneously concerned with paying jobs and complex personal lives. Some have gone so far as to argue that volunteering is becoming a luxury that only the affluent can undertake (Sergent & Sedlacek, 1990). While this may be an overstatement of the present state of affairs, it is clear that the composition of the volunteer market is changing and that these changes have implications for nonprofit organizations who rely on their service. At the same time that there is concern over their availability, there also is growing interest in volunteerism (e.g., George Bush's Thousand Points of Light Foundation and the recent President's Summit on America's Future) and the increasingly important role volunteers will play in our society (for example, in the wake of welfare reform). These trends suggest an area ripe for social science research.

Surprisingly, however, little organizational research has been conducted with this population of employees. The work that has examined the nonprofit workforce has often focused solely on college students who volunteer for on-campus organizations or activities. In addition, the research has tended only to explore the differences the exist between volunteer and paid workers.

Comparisons between volunteers and nonvolunteers have shown clearly that the two groups are quite different. Much of this work has focused on the demographic and personality characteristics of volunteers. Some research has found that women are more likely to be in community service activities than men (Fitch, 1987, 1991). Allen and Rushton (1983) found volunteers to be rated as more empathetic, possess more internalized moral standards, have more positive attitudes toward themselves, and see themselves as more self-competent and emotionally stable than a matched group of non-volunteers. In a comparison of college students involved in community service extracurricular activities versus students in other types of collegiate activities, the service students were shown to score higher on measures of conformity and benevolence and lower on ratings of independence (Fitch, 1991). There has also been a positive relation found between religiosity and participation in volunteer activities (Forst & Healy, 1991). Volunteering time to religious organizations, in particular, may be viewed as a form of commitment (Forst & Healy, 1991).

In addition to their demographic and personality characteristics, the motivation of individuals to volunteer has also been investigated. Three primary motivations for volunteering have been suggested: altruistic motives focusing on improving the welfare of others, egoistic motives concerned with improving one's own welfare, and social obligation or repaying a debt to society (Fitch, 1987). Many people assume that the primary motivation to volunteer stems

from an altruistic motive to help others. However, recent research has suggested that egoistic motivations may be just as important. D'Braunstein and Ebersole (1992) addressed this issue by investigating differing motivations of student volunteers versus non-volunteers. In their study, participants were asked to indicate what is most personally meaningful in their lives. The expectation that a significantly greater number of volunteers than nonvolunteers would indicate that service to others was most important in their lives was not supported. However, student volunteers were almost four times more likely than those in the non-volunteers group (44% compared to 12%) to affirm personal growth as the category having the greatest meaning in their lives. These findings support the importance of examining the presence of egoistic motives in decisions to volunteer. Similarly, Pearce (1983) reported that volunteers were more likely than nonvolunteers doing the same type of work (e.g., firefighter) to report that they work for the reward of social interaction. It appears, then, that volunteers often seek growth and personal satisfaction in addition to the notion of helping others (Sergent & Sedlacek, 1990).

The constructs of satisfaction and commitment discussed earlier in relation to the private sector also have been mentioned as factors influencing whether volunteer employees remain with an organization (Miller, Powell & Seltzer, 1990). Like non-volunteers, the attitudes and personal characteristics of volunteers influenced turnover indirectly through behavioral intentions (Miller et al., 1990). In addition, the convenience of the volunteers' work schedule also had a direct effect on the turnover of hospital volunteers (Miller et al., 1990). Previous work had suggested that there are differences in the levels of satisfaction found between employees in the public, private and nonprofit sectors. Blunt and Spring (1991) examined this hypothesis with a sample of recent Master of Public Administration graduates.

The authors reported that there were no differences as measured by the Job Diagnostic Index between the three sectors in indices of work satisfaction, satisfaction with supervision or satisfaction with coworkers. As expected, there were differences in measures of satisfaction with pay and promotion, such that those in the private sector were generally more satisfied than those in the public and nonprofit sectors (Blunt & Spring, 1991).

Volunteers also differ from non-volunteers on measures of commitment. As discussed earlier, commitment is commonly viewed as a multidimensional construct. One of these dimensions, moral commitment, refers to the loyalty or identification felt toward the organization. Commitment measures that focus on identification with the organization, in particular, appear to differentiate volunteers from paid employees (Koslowsky, Caspy & Lazar, 1988), with volunteers measuring higher than nonvolunteers. The operationalization of volunteering in the context of Koslowsky et al.'s (1988) study, however, consisted only of employees agreeing to complete a questionnaire. Schaubroeck and Ganster (1991) reported that affective commitment measures were positively related to volunteering, and appeared to explain the relationship between intrinsic satisfaction and volunteering. The relation was especially strong among members of public service agencies, as opposed to fellowship or professional development organizations. Jenner (1981) reported that higher commitment scores were related to the reported number of volunteer hours worked as well as one item measures of satisfaction, job involvement and plans for continued membership in the organization. A two year follow up of these same respondents, however, found that the commitment measure did not predict future behavior (number of volunteer hours worked at time 2; Jenner, 1984). In fact, the number of hours volunteered at time one was the best predictor of the number of volunteered hours at time two (Jenner, 1984).

The need for reliable, time efficient and cost-effective means of screening potential volunteers for certain positions (for example, those working with young children) has led some agencies to rely on personality measures such as the Minnesota Multiphasic Personality Inventory (MMPI). Due to a perceived lack of research on the adequacy of employing the MMPI for these purposes, Burke and Hall (1986) explored the use of the MMPI for predicting volunteers' tenure and work quality. Limited success was reported for predicting both tenure or quality (Burke & Hall, 1986). Neither MMPI scores nor personal factors such as age or education were successful in predicting volunteer tenure, and the only useful indicators for employment quality were education and occupation. Therefore, alternate procedures for the successful selection and placement of volunteers may allow for better predictions of organizational outcomes such as quality or satisfaction. Person-environment fit is one approach that may hold promise in these situations.

As suggested by Holland's person-environment fit theory, both individuals and environments can be classified into six different types or models. Achieving a fit between the individual and environment, the theory proposes, will lead to beneficial outcomes for both parties. Placing volunteers in environments that match their individual characteristics may increase the likelihood that the placements will be associated with higher levels of satisfaction and commitment. No research could be located in the literature on person-environment fit that specifically addressed this connection for nonprofit organizations and/or volunteer populations.

Studies that have utilized Holland's person-environment fit typology generally only compare the characteristics of volunteers and non-volunteers. For example, Sergent and Sedlacek (1990) surveyed approximately two hundred college students in four nonprofit

campus organizations and found that not only do volunteers differ from non-volunteers, but volunteers in different types of volunteer organizations or activities are often quite different as well. Peer counselors, for instance, contained a larger proportion of Social typed individuals while service fraternity members were more likely classified as Investigative types. The possibility that volunteers in different types of organizations differ in personality characteristics and values has implications for selecting and placing them successfully. Sergent and Sedlacek (1990) concluded that attention need be given to providing volunteer experiences that match an individual's interests and personality. This sentiment has been echoed by others. White (1981) suggested that one of the most important keys to increasing volunteer community service is that potential volunteers perceive the environment as rewarding. The type of rewards provided by the environment will likely differ according to its classification into the six Holland types. Wilson (1984) further proposed that the primary goal of volunteer management is placing the 'right' person in the 'right' job. However, no research has specifically addressed the impact of person-environment fit on satisfaction and commitment outcomes in volunteer populations. These findings could have important implications for the attraction, selection and retention of satisfied, committed employees in organizations that often must rely on their services for survival.

Hypotheses

The attitudes of volunteer workers are especially essential to consider given the present state of affairs in the nonprofit sector. Funding cutbacks coupled with increased reliance on nonprofit organizations' services often lead to volunteers being faced with intense work loads and inadequate resources. Burnout, low morale and high turnover can be common by-

products in these situations. Nonprofits often have difficulties in attracting and retaining volunteers, in part due to the high potential for mobility and the number of alternate placements that are available to individuals pursuing placements in this sector. Therefore, careful consideration and investigation of the factors that may influence job satisfaction and commitment is warranted. To this end, the current research identified one mechanism, personenvironment congruence, that may be useful in assisting nonprofit organizations and volunteers alike in selecting placements that can lead to mutually beneficial outcomes.

There have been a variety of explanations put forth regarding the types of individuals most likely to volunteer, as well as their reasons for doing so. While Holland's theory of person-environment congruence has not been used to directly address nonprofits or the volunteer workforce, this study sought to provide additional insights into this important area. Altruistic explanations for why people volunteer propose that individuals who choose to volunteer are concerned with the welfare of others and are willing to work for their benefit. As described by person-environment fit theory, Social types are individuals often characterized as generous and sociable, qualities one would consider indicative of an altruistic person.

Alternately, more recent research has also identified egoistic motivations as influences on an individual's decision to volunteer (Sergent & Sedlacek, 1990). These results suggest that self-serving motivations for personal growth and/or professional development also contributed to volunteering decisions. Holland's Enterprising types are often identified as those individuals who score highly on characteristics of ambition and extroversion. Based on this background, the first hypothesis will examine the classification of volunteers into Holland's six primary types described earlier.

While it is expected that the sample of volunteers will be classified with higher proportions of Social and Enterprising primary types, it also is likely that the choice of the type of organization an individual volunteers for (for example, a civic organization versus a homeless shelter) may be influenced by that person's personality pattern. Therefore, a supplementary exploratory hypothesis will explore patterns of secondary personality types according to the nature of the organization the individual volunteers for. For example, a volunteer who works in a nonprofit organization related to the arts may be more likely to be classified with a Social or Enterprising primary type and an Artistic secondary type.

Hypothesis 1. It is expected there will be a relatively higher proportion of individuals with primary types classified as Social and Enterprising than the remaining four types represented in a sample of volunteer workers.

Hypothesis 1a. It is expected that the distribution of secondary individual types will vary according to the nature of organization in which the respondent volunteers.

As discussed previously, past research has suggested that person-environment fit is positively related to measures of work satisfaction. However, the magnitude of this relationship has been questioned. Most work on congruence and satisfaction has relied on samples of single occupational groups that are primarily located in the public and private sectors. In addition, global or overall indices of satisfaction are most often tested, sometimes even utilizing single item measures. For these reasons the current study expanded upon our understanding of the relation between fit and satisfaction. Research on faceted measures of satisfaction often include five primary components: the work itself, supervision, coworkers, pay and promotion. Given the voluntary nature of the employment in this research, however,

an index of satisfaction with pay is not warranted. Therefore, only the four facets listed in Hypothesis 2 will be explored.

Hypothesis 2. Person-environment fit levels will have differential influence on faceted measures of volunteer job satisfaction.

Hypothesis 2a. Higher person-environment congruence will be related to higher reported measures of satisfaction with work.

Hypothesis 2b. Higher person-environment congruence will be related to higher reported measures of satisfaction with supervision.

Hypothesis 2c. Higher person-environment congruence will be related to higher reported measures of satisfaction with coworkers.

Hypothesis 2d. Higher person-environment congruence will be related to higher reported measures of satisfaction with promotion

As with satisfaction, the relationship between congruence and commitment has not resulted in any definitive conclusions. Commitment is now frequently conceptualized as a multidimensional construct, although not often in the realm of person-environment fit research. Jaros and colleagues (1993) proposed a three component framework of commitment (affective, continuance and moral dimensions) and found that the dimensions had different influences on the nature of the relationship between commitment and turnover. It may be likely, then, that these same dimensions may have differential effects in the congruence-commitment relationship as well.

Hypothesis 3. Person-environment fit levels will have differential influence on three faceted measures of commitment.

Hypothesis 3a. Higher person-environment congruence will be related to higher reported levels of affective commitment.

Hypothesis 3b. Higher person-environment congruence will be related to higher reported levels of moral commitment.

Hypothesis 3c. Higher person- environment congruence will not be related to higher reported levels of continuance commitment.

As discussed earlier, consistency refers to the degree of relatedness between personality types or environmental models. Types are considered consistent when the personality pattern contains combinations that have common characteristics. For example, both Realistic and Investigative types have some characteristics in common (e.g., unsociability). Higher levels of consistency in an individual's personality pattern represents an integration of interests, competencies and values. Consistency is thought to result in more predictable outcomes. On this basis, the next two hypotheses can be proposed.

Hypothesis 4. The relationship between person-environment fit and the four facets of satisfaction will be stronger for individuals with higher levels of consistency versus those individuals with lower levels of consistency.

Hypothesis 5. The relationship between person-environment fit and the three facets of commitment will be stronger for individuals with higher levels of consistency versus those individuals with lower levels of consistency.

Differentiation refers to the degree of difference between the highest and lowest of the six scores that comprise the individual or environmental codes. The greater the difference

between the highest and lowest scores, the greater the differentiation. Prediction is thought to be increased with higher levels of differentiation because it reflects a focused influence.

Therefore, the following hypotheses can be advanced.

Hypothesis 6. The relationship between person-environment fit and the four facets of satisfaction will be stronger for individuals with higher levels of differentiation versus those individuals with lower levels of differentiation.

Hypothesis 7. The relationship between person-environment fit and the three facets of commitment will be stronger for individuals with higher levels of differentiation versus those individuals with lower levels of differentiation.

CHAPTER II

METHOD

Sample

Five organizations comprised the final sample (please see Procedure for a complete description of the data collection process). Four of the five organizations in the sample were located in suburban areas, while the remaining agency was found within the city limits. Only one of the organizations had a direct religious affiliation. Organization 1 served the health care industry and volunteers reported providing direct patient assistance, performing various medical procedures and general office and clerical tasks. Organizations 2 and 3 were social service agencies. Only a select subset of Organization 2's volunteers were surveyed for this research project. Both organizations provided child and family support services, and volunteers in both groups reported providing direct service, office and clerical work and fundraising activities. The final two organizations (4 and 5) provide recreational and leisure opportunities for individuals and families. As was the case above, only a subgroup of Organization 5's total volunteer pool was included in the survey process. Volunteers in these final two groups identified tasks such as educational programming, instruction, customer assistance and miscellaneous support functions. Five hundred thirty-five surveys were returned for an overall response rate of 52%. Table 3 shows the sample size and response rate for each individual organization.

Table 3. Response rates by organization

	Returned Surveys (N)	Response Rate
Organization 1	47	48%
Organization 2	50	45%
Organization 3	74	49%
Organization 4	285	53%
Organization 5	79	60%
Overall	535	52%

The final sample included a majority of older respondents (54% were over age 55), women (76%), non-minorities (97% were Caucasian/white), and those who were married or in committed relationships (59%). Eighty-nine percent of the sample indicated a religious preference (including 31% Catholic and 44% Protestant). The sample included a range of household incomes, although most fell into the groupings typically considered middle to upper-middle class (44% over \$50,000 and 31% between \$25,000 and \$50,000 a year). The sample also reported a range of educational backgrounds, but the majority had at least some college experience (including 23% college graduates and 18% with graduate degrees).

The average length of time respondents had volunteered was over five years (67 months), although this figure was skewed due to a subgroup of respondents who had volunteered for twenty years or more. The median length of volunteering was approximately three years, with 32% of the respondents having volunteered for 2 years or less. Sixty-one percent of the sample volunteers between two and five hours a week and almost all (96%) report that they expect to continue at their volunteer placement. In addition to volunteering at the current organization, 40% also volunteered at another placement, 40% were retired, 33% worked full-time and 17% worked part-timed positions.

Measures

Self-Directed Search. Classifying individuals into Holland's six types was done through the use of the Self-Directed Search (SDS). To use the SDS, a person typically completes a 228 item assessment booklet which includes items about preferred activities, competencies, and occupational aspirations in all six of the type areas (Holland & Rayman, 1986). For the purposes of efficiency and to reduce the redundancy in data collection, only a select portion of these sections were included in the research instrument, specifically those that focused on the individual's preferred activities and competencies. Holland (1985) identifies these two areas as those most related to individual interests, satisfaction and achievement. The two sections that were used in this research can be found in Appendix A, the Volunteer Experiences Questionnaire (see items 14-145, Column A).

The Activities section of the SDS is made up of eleven items for each of the six type categories, for a total of 66 items. Participants were asked to check the 'like' box if the item is an activity they would like to do or check the 'dislike' box for activities they would dislike doing or are indifferent to. Examples of items in the Activities section are 'serve as an officer of any group' (Enterprising) and 'go to sports events' (Social). Similarly, the Competencies section of the instrument contains a total of 66 items, again with eleven items for each of the six categories. In the Competencies section, participants were asked to check the 'yes' box for those activities they do well or competently or check the 'no' box for activities that have never been performed or have been performed poorly.

Responses to the 22 total items (11 for activities and 11 for competencies) were tallied for each of the six type categories. The number of 'like' responses from the Activities section

along with the number of 'yes' responses in the Competencies section comprised the score for each of the categories. Combining the two categories for scoring purposes, as is standard in SDS assessments, results in possible scores ranging from 0 (when no 'like' or 'yes' responses are recorded) to 22 (when all 'like' or 'yes' responses are recorded) for each of the categories. In order to maximize the total number of usable surveys, adjusted scores were utilized. Respondents must have completed at least 9 of the 11 items for both the Activities and Competencies sections in order to receive a score on that subscale. In the cases when subscales had one or two items missing responses, the mean of the remaining 9 or 10 items was computed and then multiplied by 11. The resulting adjusted score was then used as the subscore. Data was considered missing when more than two items were incomplete for either of the sections. The three highest scoring categories were used as the individual's type code, with the highest scoring category first, followed by the second and third highest scoring respectively.

Validity studies conducted on the Self-Directed Search, including construct, predictive, content and concurrent research, are positive and these results have been comparable to similar personality inventories in use (Holland, 1979, 1985). Population norms for the classification of individuals into the six types is not known, which therefore prohibits any direct comparisons between the current sample and the population at large. Because the scale was originally developed in the 1970's, several of the items are outdated. Therefore, 5 items were reworded or shortened to bring them more in line with contemporary language and technology (e.g., "I can operate a duplicating or adding machine" was reworded to "I can operate a computer"). Analyses of the scale's internal consistency with these modifications were conducted to examine the resulting reliability. The internal consistency coefficients that were obtained in the

current research are displayed below. As can be seen in Table 4, the resulting alpha coefficients are in the same range as those reported by Holland, suggesting that the modifications of the five items had little effect on the internal consistency of the scales.

Table 4. Internal consistency coefficients for SDS scales

SDS Scale		ported ficient *	Current Coefficient
	Men	Women	
Realistic - Activities	.84	.77	.88
Realistic - Competencies	.83	.75	.86
Realistic - Combined			.92
Investigative - Activities	.77	.75	.84
Investigative - Competencies	.72	.68	.67
Investigative - Combined	***		.80
Artistic - Activities	.73	.70	.70
Artistic - Competencies	.71	.69	.78
Artistic - Combined	~~	••	.78
Social - Activities	.63	.53	.67
Social - Competencies	.71	.65	.79
Social - Combined			.72
Enterprising - Activities	.78	.75	.75
Enterprising - Competencies	.75	.75	.57
Enterprising - Combined			.75
Conventional - Activities	.79	.79	.77
Conventional - Competencies	.69	.72	.75
Conventional - Combined			.84

Note. a = reported in Holland (1985). Internal consistency coefficients were reported separately for (1) men and women and (2) Activities and Competencies sections.

Test-retest reliabilities between .60 and .92 have been reported for college freshmen over a period of 7 to 10 months. Negligible correlations have been reported between SDS responses and the Crowne-Marlowe Social Desirability Index (Aranya, Barak & Amernic, 1981), an important consideration given the transparent nature of the scales. Studies examining the psychometric properties of the SDS have shown small and statistically nonsignificant correlations between the SDS scales and measures of neuroticism (Gottfredson,

Jones, & Holland, 1993). Small to moderately strong correlations have been reported between responses and gender that replicate common findings that men and women have interests and occupational aspirations that remain different in some areas (Holland & Rayman, 1986).

Environmental Rating Scale. There is no universal agreement on the most appropriate or valid methods by which to measure environmental characteristics in person-environment fit research. While most evidence supports the assertion that environments can be classified into the six environmental models, very little is available on how best to accomplish the goal.

As discussed earlier, Holland advocated the use of his Environmental Assessment

Technique (EAT). The EAT suggests that environments can be characterized simply by taking
a census of the individual types of all members of the environment (Holland, 1985). In
addition to the fact that the EAT has been little used in the fit literature, this methodology does
not address the importance of an individual's perception of the characteristics of the
environment. For this reason, a new procedure was utilized that allowed individuals to rate
aspects of their environment corresponding to the six model environments of Holland's theory.
The Environmental Rating Scale can be found in the Volunteer Experiences Questionnaire (see
Appendix A, items 14-145, column B). Respondents were asked to identify the types of
activities and competencies that the environment in which they volunteer rewards and
encourages in its members. This measure allowed environments to be classified into similar
typologies as individual type is assessed by the Self-Directed Search.

The Environmental Rating Scale items are identical to those contained in the Self-Directed Search, thus ensuring the utilization of commensurate dimensions. Similar to the SDS, items were asked for both activities and competencies. For the Activities section, participants were asked to respond 'yes' if the item is a activity the organization encourages or values or 'no' if the item is not descriptive of the environment. Likewise, for the Competencies section, participants were asked to respond 'yes' if the item is a skill or ability the organization requires or uses or 'no' if the item is not descriptive of the environment. In this way, respondents responded to both the SDS section and ERS section for each activity and ability (see Appendix A for the actual format of the questionnaire).

As in the SDS, the Environmental Rating Scale results in a total of 132 items (11 items for the six subscales for both the Activities and Competencies sections). Responses to the items rated 'yes' were obtained for each of the six categories. As in the scoring of the SDS subscales, respondents must have completed at least 9 of the 11 items for each of the two sections in order to receive a score on the subscale. Again, adjusted scores were used in these cases. Data was considered missing when more than two items were incomplete for each section. The three highest categories were used as the environmental code, with the highest scoring category first followed by the second and third highest scoring respectively.

Internal consistency coefficients for the ERS are shown in Table 5 below.

Supplemental analyses were conducted due to the low alpha coefficient reported for the Realistic Activities scale (original ©=.59). The results of this analysis ultimately led to one item ("drive a truck or tractor") being deleted from the analyses due to its inadequate contribution to the scale's consistency. While the item was deleted from the Activities section it was retained in the Competencies section. While the item did not reflect an activity the volunteers in this sample perceived as part of their experience, respondents could nonetheless respond about their ability to drive a truck or tractor in general.

Table 5. Internal consistency coefficients for ERS scales

ERS Scale	Current Coefficient
Realistic - Activities	.83
Realistic - Competencies	.90
Realistic - Combined	.80
Investigative - Activities	.83
Investigative - Competencies	.81
Investigative - Combined	.87
Artistic - Activities	.86
Artistic - Competencies	.85
Artistic - Combined	.88
Social - Activities	.80
Social - Competencies	.80
Social - Combined	.83
Enterprising - Activities	.82
Enterprising - Competencies	.86
Enterprising - Combined	.90
Conventional - Activities	.86
Conventional - Competencies	.90
Conventional -	.93
Combined	

Kwak-Pulvino Congruence Index. Congruence between each participant's individual type code and environmental code was determined using the Kwak-Pulvino (K-P) Index (Kwak & Pulvino, 1982). The K-P index was chosen because of its consistency with the fundamental assumptions of person-environment fit theory. In addition, this index adds precision to the measurement of congruence by including comparisons of secondary and tertiary codes. The K-P index is a mathematical model of congruence that incorporates the actual intercorrelations among the six Holland types into its calculations. This method proposes that first letter matches of person-environment codes are twice as important as matches in the second letters and four times as important as matches between third letters. The weights of 4, 2, and 1 are consistent with Holland's theory that the dominant (or first

letter) type is the major characteristic of both individual personality and environment.

Secondary and tertiary types are less influential, and therefore receive lower weights. The K-P index is obtained through the following formula.

$$X = (W_1 + W_2 + W_3)^{-1} (W_1AD + W_2BE + W_3CF)$$

Where

X = the weighted relationship between individual and environmental codes,

 W_1 = the weight assigned to the dominant (first) code letter,

 W_2 = the weight assigned to the secondary (second) code letter,

 W_3 = the weight assigned to the secondary (second) code letter,

- AD = the relationship between the first letter of the three-letter personality code (A) and the first letter of the three-letter environmental code (D). The value of this relationship is given in the correlations associated with Holland's hexagonal model.
- BE = the relationship between the second letter of the three-letter personality code

 (B) and the second letter of the three-letter environmental code (E). The value of this relationship is given in the correlations associated with Holland's hexagonal model.
- CF = the relationship between the third letter of the three-letter personality code (C) and the third letter of the three-letter environmental code (F). The value of this relationship is given in the correlations associated with Holland's hexagonal model.

The values of the relationships between codes used in the computation of the K-P index can be found in Appendix B. Positive scores indicate higher levels of congruence than

negative or null scores (Brown & Gore, 1994). The mean fit score in the current research was .70, with scores ranging from .25 to 1.0 and a standard deviation of .18.

Consistency. Consistency refers to the degree of relatedness between the six type categories. Types are considered consistent to the degree that they have some characteristics in common. Holland (1985) provides a method for distinguishing between high, medium and low consistency levels. Table 6 contains this table that categorizes all possible combinations and permutations for the two highest scoring categories. Consistency, then, was classified as either high, medium or low using the two highest scoring type categories that result from the individual's responses to the SDS sections.

Table 6. Consistency Classification Table

Level of Consistency	Personality Pattern	
High	RI, RC, IR, IA, AI, AS, SA, SE, ES, EC, CE, CR	
Medium	RA, RE, IS, IC, AR, AE, SI, SC, EA, ER, CS, CI	
Low	RS, IE, AC, SR, EI, CA	

Of the 472 respondents that had subscale scores for both the primary and secondary SDS codes, 319 (68%) respondents were classified as high in consistency, 56 (12%) as medium, and 97 (21%) as low.

<u>Differentiation</u>. Differentiation refers to the degree of difference between the highest and lowest scoring categories as obtained from the SDS assessment. As mentioned earlier, possible scores for each of the six categories can range from 0 to 22. Measures of differentiation deal with all six categories and are thus not limited to the three highest scoring

that comprise the individual's type code. Differentiation scores were obtained, then, by subtracting the lowest scoring of the six categories from the highest scoring category.

Differentiation scores for this sample ranged from 0 to 22, with a mean score of 12.4 and standard deviation of 3.97.

Job Diagnostic Index. Four dimensions of the Job Diagnostic Index (JDI) relevant to this study were used to assess respondents' job satisfaction levels. The JDI was developed by Smith, Kendall and Hulin (1969) as a faceted measure of job satisfaction. The original instrument was composed of seventy-two items arranged in an adjective checklist format.

Research has examined a number of psychometric and dimensional characteristics of the JDI. Through factor analysis, Jung, Dalessio and Johnson (1986) investigated the dimensionality of the measure and found that the five JDI dimensions are stable across a wide variety of situations and groups of respondents. A similar study found that a shortened version of the JDI, including the six highest loading items in each of the five factors, possesses the same dimensionality as the original format (Gregson, 1987). Again, for purposes of time efficiency, this shortened version of the JDI was employed in the present study. This shortened version contained the same items reported on by Jung et al. (1986) and Gregson (1987, 1990). However, due to the nature of the sample and research questions, only four of the five dimensions (for a total of 24 items) were included: promotion, the work itself, supervision and coworkers. Due to the nature of the sample, items making reference to "promotion" were reworded as "advancement". Gregson's (1990) reported alpha coefficients, along with those reported for the current sample, are shown in Table 7 below. It can be argued that the relatively low alpha in the current study for the satisfaction with coworkers and satisfaction with the work itself categories may be due to a lack of clear and consistent work experience in

many volunteering situations. Many volunteer activities may be conducted alone or with a peer group and series of duties and responsibilities that are constantly changing and fluid.

Table 7. Internal consistency coefficients for JDI subscales

	Reported Coefficient	Current Coefficient
Promotion (Advancement)	.90	.76
Work Itself	.84	.61
Supervision	.86	.84
Coworkers	.84	.59

See Appendix A, items 146-169, for the JDI items used in this study. In general, the JDI is considered a reliable and valid measurement tool of job satisfaction in a wide variety of settings (Roznowski, 1984).

Respondents answer each item as 'yes', 'no' or '?'. Positive ('yes') responses to positive items and negative ('no') responses to negative items receive a score of 3. Negative ('no') responses to positive items and positive ('yes') responses to negative items receive a score of 0. Responses of '?' to any item receive a score of 1. Higher scores indicate higher satisfaction levels. There has been a question as to whether a '?' response truly reflects a more negative than positive evaluation of satisfaction (as evidenced by a score of 1 as opposed to a score of 1.5 if the'?' represented a neutral statement). Hanisch (1992) investigated this question through the use of Item Response Theory analysis and concluded that the current scoring of '?' is appropriate. That is, responses indicated by a '?' were more negative than positive or neutral evaluations of satisfaction levels. In an assessment of the response format, studies have shown that there is little difference between responding in the original yes/no/?

format and conversions of the response options into five point Likert scales (Johnson, Smith, & Tucker, 1982).

Organizational Commitment Scale. Organizational commitment was measured using the same protocol as that used by Jaros and colleagues (1993). This instrument measures the three forms of commitment described earlier (continuance, moral and affective) and contains a total of 21 items. See Appendix A, items 170-190, for the copy of the measure. The continuance commitment scale originally included three items, one of which was reversed scored. Responses were made on a seven point scale ranging from 'strongly disagree' (1) to 'strongly agree' (7). An alpha coefficient of .77 for this three item scale was reported in the Jaros et al. (1993) study. The current research found an alpha of .45 when using all three items. However, the alpha coefficient climbed to .74 with the deletion of one item ("it would not be too costly for me to leave the organization I volunteer for in the near future"). Due to the volunteer nature of the respondents' work, the issue of cost may not have been salient to the sample. All subsequent analyses, therefore, relied on the remaining two items.

Moral commitment was measured with four items. The items reflect a sense of duty and dedication to an organization and its mission. Responses were again made on a seven point scale as described for the continuance commitment scale. An alpha coefficient of .83 was reported for the moral commitment scale (Jaros et al., 1993), and the current research found a similar coefficient of .84.

The affective commitment scale was measured with Jaros et al.'s 14 item bipolar adjective list. Respondents were asked to use a seven-point scale and report the feelings they usually experience when thinking of the organization they volunteer for. Examples of items included in the scale are 'sadness-happiness' and 'loyalty-disloyalty'. Five of the items on the

scale were reverse scored. The authors reported an alpha coefficient of .94 for the scale (Jaros et al., 1993) compared to .92 for the present study.

Procedure

The participation of the nonprofit organizations used in the present study was arranged through each organization's volunteer coordinator. An announcement of the research opportunity (see Appendix C) was included in a newsletter of a local organization of volunteer administrators. The announcement gave a brief overview of the research topic and asked those interested in collaborating on the research to contact the researcher. Five organizations agreed to the conditions of the partnership (see Appendix D) and were included in the final sample. In exchange for allowing the researcher to contact their volunteers, each organization was provided with a feedback report based on the results of the study.

Each organization's volunteer administrator provided home address mailing labels for their volunteer workforce. A Volunteer Experiences Questionnaire packet was mailed directly to each volunteer at their home address. The Volunteer Experiences Questionnaire packet included a cover letter from the researcher explaining the purpose of the study (see Appendix E) along with a letter of encouragement for participation from the agency's volunteer coordinator (see example in Appendix F). Participants were informed that the purpose of the study was to gain a better understanding of volunteers and their attitudes about their volunteer experience. Prepaid return envelopes were included in the packets, which were returned directly to the researcher. Respondents were guaranteed confidentiality and were also asked not to provide any identifying information in order to further ensure the anonymity of their responses.

CHAPTER III

RESULTS

A summary of the demographic characteristics of the research sample was presented in Chapter II. Intercorrelations between the independent and dependent variables are presented in Table 8.

Table 8. Correlation coefficients for independent and dependent variables

	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Fit	.70	.18								
(2) Advancement *	7.83	4.63	.09							
(3) Coworkers*	17.01	2.12	.01	.15**						
(4) Supervisors *	16.24	3.73	.05	.22**	.28**					
(5) Work*	15.84	3.08	.07	.28**	.30**	.15**				
(6) Affective b	77.77	13.61	.07	.17**	.20**	.29**	.33**	••		
(7) Continuance b	7.22	3.92	.14*	.11*	.13*	.01	.20**	.25*		
(8) Moral ^b	23.35	5.28	.03	.10*	.08	.09*	.17**	.29**	.26**	

Note. *p<.05 ** p<.001, a= satisfaction indices, b= commitment indices

For Hypothesis 1 and 1a, chi square analyses were conducted to test for significant differences in the respondents' proportion of primary and secondary types, respectively.

Hypotheses 2 and 3 were examined from two different perspectives, using both (1) bivariate correlations between fit and the satisfaction (Hypothesis 2) or commitment (Hypothesis 3) indices, and (2) regression equations to examine the ability of fit, controlling for the individual types and environmental models, to predict either the satisfaction (Hypothesis 2) or commitment (Hypothesis 3) indices.

The analyses for Hypotheses 4 and 5 utilized regression models. For both hypotheses, the satisfaction (Hypothesis 4) and commitment (Hypothesis 5) indices were again used as the dependent variables and the measures of fit and consistency, along with their interaction term, were used as predictors.

The analyses of Hypotheses 6 and 7 again utilized regression models. For both hypotheses, satisfaction (Hypothesis 6) or commitment (Hypothesis 7) indices were used as the dependent variables and the measures of fit and differentiation, along with their interaction term, were used as predictors. Supplemental analyses suggested by the results of these procedures are discussed for each hypothesis separately below. All of the analytic procedures were run using the SPSS statistical package. A summary of the hypotheses and the corresponding research support can be found in Table 9. The results for each hypothesis are reported separately and in more detail below.

Table 9. Summary of proposed hypotheses and research support

	Hypothesis	Research Support
1.	Higher proportion of Enterprising and Social individual types	Mixed
la.	Distribution of individual types by organization	Not Supported
2.	Significant satisfaction - fit relationship	Not Supported
3.	Significant commitment - fit relationship	Not Supported
4.	Significant satisfaction x consistency interaction	Not Supported
5.	Significant commitment x consistency interaction	Not Supported
6	Significant satisfaction x differentiation interaction	Not Supported
7.	Significant commitment x differentiation interaction	Not Supported

Hypothesis 1

It was expected there would be a relatively higher proportion of individuals in the sample of volunteer workers with Social and Enterprising primary types than the remaining four types. Results of the overall chi square analysis indicated significant differences between the cells (X^2 (5, n=476)=437.99, p<.001). Individual chi square statistics for each of the six primary type showed that there was a higher proportion of both Enterprising (X^2 (5, n=476)=320.96, p<.001) and Conventional (X^2 (5, n=476)=23.8, p<.001) types than expected by chance. The proportion of Social types was not significantly different than that expected by chance (X^2 (5, n=476)=.04, n.s.). The frequencies of the individual primary types can be found in Table 10 below.

Table 10. Frequency of primary individual codes

Type	- 	N	Valid
			Percent
Realistic		25	5%
Investigative		3	1%
Artistic		23	5%
Social		81	17%
Enterprising		225	47%
Conventional		119	25%
	Total	476	100%

Hypothesis 1a. It was expected that the distribution of the six secondary individual types would vary according to the organization in which the respondent volunteers. Chi square analysis (X² (20, n=476)=15.93, n.s.) showed no significant pattern of variation by organization.

Supplemental Analyses. Because of the large number of degrees of freedom required for the 6x5 chi square analysis proposed for testing Hypothesis 1a, the five organizations were collapsed according to their three primary activities: medical, social service and cultural/educational. Again, chi square analysis (X² (10, n=476)=5.68, n.s.) showed no significant differences according to organizational type.

Hypothesis 2

The second hypothesis predicted that person-environment fit would have a differential influence on faceted measures of volunteer job satisfaction. As mentioned earlier, two analytic strategies (bivariate correlation and multiple regression) were employed to investigate the hypotheses.

Hypothesis 2a. It was expected that higher person-environment congruence would be related to higher reported measures of satisfaction with work. The bivariate correlation between fit and satisfaction with work (r=.07, n.s.) was nonsignificant. A regression equation was run to investigate the ability of the fit index, when controlling for the individual type and environmental model components, to predict satisfaction with work. The resulting partial correlation (β =0.00, n.s.) was not statistically significant.

Hypothesis 2b. It was expected that higher person-environment congruence would be related to higher reported measures of satisfaction with supervision. The bivariate correlation between fit and satisfaction with supervision (r=.05, n.s.) was nonsignificant. A regression equation was run to investigate the ability of the fit index, when controlling for the individual type and environmental model components, to predict satisfaction with supervision. The resulting partial correlation (β =-.03, n.s.) was not statistically significant.

Hypothesis 2c. It was expected that higher person-environment congruence would be related to higher reported measures of satisfaction with coworkers. The bivariate correlation between fit and satisfaction with coworkers (r=.01, n.s.) was nonsignificant. A regression equation was run to investigate the utility of the fit index, when controlling for the individual type and environmental model components, to predict satisfaction with coworkers. The resulting partial correlation (β =.01, n.s.) was not statistically significant.

Hypothesis 2d. It was expected that higher person-environment congruence would be related to higher reported measures of satisfaction with advancement. The bivariate correlation between fit and satisfaction with advancement (r=.09, n.s.) was nonsignificant. A regression equation was run to investigate the ability of the fit index, when controlling for the individual type and environmental model components, to predict satisfaction with advancement. The resulting partial correlation (β =0.00, n.s.) was not statistically significant.

Supplemental Analyses. A series of supplemental analyses reconceptualizing fit as a match between primary codes only were run for each of the satisfaction indices. These analyses utilized t-tests comparing those with a match between the primary individual code and the primary environmental model versus respondents who did not match primary codes. The results for both satisfaction with coworkers (t (403) = .11, n.s.) and supervision (t(407) = -.77, n.s.) did not reach statistical significance. However, the t-test results for satisfaction with the work itself (t (393)=-1.68, p<.05) and satisfaction with advancement (t (394)= -1.96, p<.05) were significant such that respondents with a match between their primary individual types and the primary environmental model at their volunteer placement were more satisfied than respondents who did not match. The following table presents the means and standard deviations for these groups.

Table 11. Mean satisfaction scores for supplemental analyses

	N	Mean	Standard Deviation
Work			
No Primary Match	212	15.81	3.18
Primary Match	183	16.32	2.72
Advancement			
No Primary Match	208	7.55	4.71
Primary Match	188	8.48	4.77

Hypothesis 3

The third hypothesis predicted that person-environment fit levels would have differential influence on three faceted measures of commitment. Again, two analysis strategies (bivariate correlation and multiple regression) were employed to investigate the hypotheses.

Hypothesis 3a. It was expected that higher person-environment congruence would be related to higher reported levels of affective commitment. The bivariate correlation between fit and affective commitment (r=.07, n.s.) was nonsignificant. A regression equation was run to investigate the ability of the fit index, when controlling for the individual type and environmental model components, to predict affective commitment. The resulting partial correlation (β =0.00, n.s.) was not statistically significant.

Hypothesis 3b. It was expected that higher person- environment congruence would be related to higher reported levels of moral commitment. The bivariate correlation between fit and moral commitment (r=.03, n.s.) was nonsignificant. A regression equation was run to investigate the ability of the fit index, when controlling for the individual type and

environmental model components, to predict moral commitment. The resulting partial correlation (β =.01, n.s.) was not statistically significant.

Hypothesis 3c. It was expected that higher person- environment congruence would not be related to higher reported levels of continuance commitment. Contrary to the hypothesis, the bivariate correlation between fit and continuance commitment (r=.14, p<.05) did reach a level of statistical significance. A regression equation was run to investigate the ability of the fit index, when controlling for the individual type and environmental model components, to predict continuance commitment. The resulting partial correlation (β =.08, n.s.) was not statistically significant.

Supplemental Analyses. As in Hypothesis 2, a series of supplemental analyses reconceptualizing fit as a match between primary codes only were run for each of the satisfaction indices. These analyses utilized t-tests comparing those with a match between the primary individual code and the primary environmental model versus respondents who did not match primary codes. The results for moral commitment (t (392)=-1.04, n.s.) did not reach statistical significance. However, the t-test results for affective commitment (t (359)= -2.32, p<.05) and continuance commitment (t (401)= -3.30, p<.001) were significant such that respondents with a match between their primary individual types and the primary environmental model at their volunteer placement were more committed than respondents who did not match. Table 12 presents the means and standard deviations for these groups.

Table 12. Mean commitment scores for supplemental analyses

	N	Mean	Standard Deviation
Affective			
No Primary Match	189	76.70	13.60
Primary Match	172	79.95	12.99
Continuance			
No Primary Match	209	6.68	3.66
Primary Match	194	7.95	4.05

Hypothesis 4

Hypothesis 4 predicted that the relationship between person-environment fit and the four facets of satisfaction would be stronger for individuals with higher levels of consistency versus those individuals with lower levels of consistency. These hypotheses were tested with regression equations for each of the satisfaction indices and included fit, consistency and their interaction as the predictors.

Hypothesis 4a. It was expected that the interaction between person-environment fit and consistency would make a significant contribution to predicting satisfaction with work. The resulting partial correlation (β =.16, n.s.) for the interaction term did not reach statistical significance. In addition, both the fit (β =-.04, n.s.) and consistency (β =.-15, n.s.) main effects were nonsignificant.

Hypothesis 4b. It was expected that the interaction between person-environment fit and consistency would make a significant contribution to predicting satisfaction with supervision. The resulting partial correlation (β =.20, n.s.) for the interaction term did not reach statistical significance. In addition, both the fit (β =-.10, n.s.) and consistency (β =-.11, n.s.) main effects were nonsignificant.

Hypothesis 4c. It was expected that the interaction between person-environment fit and consistency would make a significant contribution to predicting satisfaction with coworkers. The resulting partial correlation (β =-.06, n.s.) for the interaction term did not reach statistical significance. In addition, both the fit (β =.05, n.s.) and consistency (β =.10, n.s.) main effects were nonsignificant.

Hypothesis 4d. It was expected that the interaction between person-environment fit and consistency would make a significant contribution to predicting satisfaction with advancement. The resulting partial correlation (β =-.13, n.s.) for the interaction term did not reach statistical significance. In addition, both the fit (β =.20, n.s.) and consistency (β =-.04, n.s.) main effects were nonsignificant.

Supplemental Analyses. A series of ANOVA analyses for each of the satisfaction indices were conducted. The 2x2 ANOVA models included the reconceptualization of fit as a match between primary codes only (match versus nonmatch) and consistency (low and medium consistency versus high consistency). The ANOVA tables for each of the four analyses are shown below. Overall, the only significant result was a main effect of consistency for the satisfaction with advancement dimension.

Table 13. Analysis of variance for satisfaction with work

Source	SS	df	MS	F Value
Primary Match	11.94	1	11.94	1.34
Consistency	1.16	1	1.16	.13
Match x Consistency	10.60	1	10.60	1.19
Residual	3467.52	390	8.89	

Note. All F values were nonsignificant.

Table 14. Analysis of variance for satisfaction with supervision

Source	SS	df	MS	F Value
Primary Match	.99	1	.99	.08
Consistency	4.25	1	4.25	.34
Match x Consistency	24.86	1	24.86	2.00
Residual	5002.20	403	12.41	

Note. All F values were nonsignificant.

Table 15. Analysis of variance for satisfaction with coworkers

Source	SS	df	MS	F Value
Primary Match	.38	1	.38	.12
Consistency	.07	1	.07	.02
Match x Consistency	.51	1	.51	.17
Residual	1237.75	399	3.10	

Note. All F values were nonsignificant.

Table 16. Analysis of variance for satisfaction with advancement

Source	SS	df	MS	F Value
Primary Match	34.34	1	34.34	1.55
Consistency	124.89	I	124.89	5.62 *
Match x Consistency	20.88	1	20.88	.94
Residual	8659.44	3990	22.20	

Note. p<.05.

Hypothesis 5

Hypothesis 5 predicted that the relationship between person-environment fit and the three facets of commitment would be stronger for individuals with higher levels of consistency versus those individuals with lower levels of consistency. These hypotheses were tested with regression equations for each of the commitment indices and included fit, consistency and their interaction as the predictors.

Hypothesis 5a. It was expected that the interaction between person-environment fit and consistency would make a significant contribution to predicting affective commitment. The resulting partial correlation (β =.23, n.s.) for the interaction term did not reach statistical significance. In addition, both the fit (β =-.09, n.s.) and consistency (β =-.17, n.s.) main effects were nonsignificant.

Hypothesis 5b. It was expected that the interaction between person-environment fit and consistency would make a significant contribution to predicting moral commitment. The resulting partial correlation (β =0.00, n.s.) for the interaction term did not reach statistical significance. In addition, both the fit (β =.03, n.s.) and consistency (β =.05, n.s.) main effects were nonsignificant.

Hypothesis 5c. It was expected that the interaction between person-environment fit and consistency would make a significant contribution to predicting continuance commitment. The resulting partial correlation (β =-.28, n.s.) for the interaction term did not reach statistical significance. In addition, both the fit (β =.35, n.s.) and consistency (β =.06, n.s.) main effects were nonsignificant.

Supplemental Analyses. A series of ANOVA analyses for each of the commitment indices were conducted. The 2x2 ANOVA models included the reconceptualization of fit as a match between primary codes only (match versus nonmatch) and consistency (low and medium consistency versus high consistency). The ANOVA tables for each of the three analyses are shown below. As was seen in the results of Hypothesis 3, the main effect of a match between primary individual and environmental codes was significant for both affective and continuance commitment.

Table 17. Analysis of variance for affective commitment

Source	SS	df	MS	F Value
Primary Match	708.99	1	708.99	3.96 *
Consistency	.03	1	.03	0.00
Match x Consistency	16.40	1	16.40	.09
Residual	63546.40	355	179.00_	

Note. p<.05.

Table 18. Analysis of variance for moral commitment

Source	SS	df	MS	F Value
Primary Match	18.21	1	18.21	.34
Consistency	.17	1	.17	.01
Match x Consistency	.09	1	.09	.00
Residual	10315.96	388	26.59	

Note. All F values were nonsignificant.

Table 19. Analysis of variance for continuance commitment

Source	SS	df	MS	F Value
Primary Match	176.25	1	176.25	11.99 **
Consistency	54.30	1	54.30	.69
Match x Consistency	35.79	1	35.79	2.43
Residual	5837.51	397	14.70	

Note. p<.001.

Hypothesis 6

Hypothesis 6 predicted that the relationship between person-environment fit and the four facets of satisfaction would be stronger for individuals with higher levels of differentiation versus individuals with lower levels of differentiation. These hypotheses were tested with regression equations for each of the satisfaction indices and included fit, differentiation, and their interaction as the predictors.

Hypothesis 6a. It was expected that the interaction between person-environment fit and differentiation would make a significant contribution to predicting satisfaction with work. The resulting partial correlation (β =.06, n.s.) for the interaction term did not reach statistical significance. In addition, both the fit (β =.03, n.s.) and differentiation (β =-.02, n.s.) main effects were nonsignificant.

Hypothesis 6b. It was expected that the interaction between person-environment fit and differentiation would make a significant contribution to predicting satisfaction with supervision. The resulting partial correlation (β =-.04, n.s.) for the interaction term did not reach statistical significance. In addition, both the fit (β =.04, n.s.) and differentiation (β =.11, n.s.) main effects were nonsignificant.

Hypothesis 6c. It was expected that the interaction between person-environment fit and differentiation would make a significant contribution to predicting satisfaction with coworkers. The resulting partial correlation (β =-1.6, n.s.) for the interaction term did not reach statistical significance. In addition, both the fit (β =.09, n.s.) and differentiation (β =.14, n.s.) main effects were nonsignificant.

Hypothesis 6d. It was expected that the interaction between person-environment fit and consistency would make a significant contribution to predicting satisfaction with advancement. The resulting partial correlation (β =.12, n.s.) for the interaction term did not reach statistical significance. In addition, both the fit (β =.02, n.s.) and differentiation (β =-.08, n.s.) main effects were nonsignificant.

Supplemental Analyses. A series of ANOVA analyses for each of the satisfaction indices were conducted. The 2x2 ANOVA models included the reconceptualization of fit as a match between primary codes only (match versus nonmatch) and differentiation (low versus

high differentiation). The ANOVA tables for each of the four analyses are shown below.

Overall, the only significant result was the main effect of differentiation for satisfaction with supervision such that individuals with higher differentiation scores were more satisfied with their supervisors.

Table 20. Analysis of variance for satisfaction with work

Source	SS	df	MS	F Value
Primary Match	24.19	1	24.19	2.72
Differentiation	.26	1	.26	.03
Match x Differentiation	8.43	1	8.43	.95
Residual	3468.07	390	8.89	

Note. All F values were nonsignificant.

Table 21. Analysis of variance for satisfaction with supervision

Source	SS	df	MS	F Value
Primary Match	1.34	1	1.34	.11
Differentiation	54.10	1	54.10	4.39 *
Match x Differentiation	3.49	1	3.49	.28
Residual	4974.61	404	12.31	

Note. p<.05.

Table 22. Analysis of variance for satisfaction with coworkers

Source	SS	df	MS	F Value
Primary Match	.01	1	.01	.00
Differentiation	.09	1	.09	.03
Match x Differentiation	.20	1	.20	.06
Residual	1261.04	400	3.15	

Note. All F values were nonsignificant.

Table 23. Analysis of variance for satisfaction with advancement

Source	SS	df	MS	F Value
Primary Match	81.87	1	81.87	3.65
Differentiation	3.59	1	3.59	.16
Match x Differentiation	41.37	1	41.37	1.85
Residual	8768.41	391	22.43	

Note. All F values were nonsignificant.

Hypothesis 7

Hypothesis 7 predicted that the relationship between person-environment fit and the three facets of commitment would be stronger for individuals with higher levels of differentiation versus those individuals with lower levels of differentiation. These hypotheses were tested with regression equations for each of the commitment indices and included fit, differentiation, and their interaction as the predictors.

Hypothesis 7a. It was expected that the interaction between person-environment fit and differentiation would make a significant contribution to predicting affective commitment. The resulting partial correlation (β =.11, n.s.) for the interaction term did not reach statistical significance. In addition, both the fit (β =.12, n.s.) and differentiation (β =.10, n.s.) main effects were nonsignificant.

Hypothesis 7b. It was expected that the interaction between person-environment fit and differentiation would make a significant contribution to predicting moral commitment. The resulting partial correlation (β =-.03, n.s.) for the interaction term did not reach statistical significance. In addition, both the fit (β =.03, n.s.) and differentiation (β =.06, n.s.) main effects were nonsignificant.

Hypothesis 7c. It was expected that the interaction between person-environment fit and differentiation would make a significant contribution to predicting continuance commitment. The resulting partial correlation (β =-.27, n.s.) for the interaction term did not reach statistical significance. In addition, both the fit (β =.29, n.s.) and differentiation (β =.17, n.s.) main effects were nonsignificant.

Supplemental Analyses. A series of ANOVA analyses for each of the commitment indices were conducted. The 2x2 ANOVA models included the reconceptualization of fit as a match between primary codes only (match versus nonmatch) and differentiation (low versus high differentiation). The ANOVA tables for each of the three analyses are shown below. As was seen in Hypothesis 3, the main effects for the primary match fit were significant for both affective and continuance commitment.

Table 24. Analysis of variance for affective commitment

Source	SS	df	MS	F Value
Primary Match	803.20	1	803.20	4.51 *
Differentiation	42.67	1	42.67	.24
Match x Differentiation	22.86	1	22.86	.13
Residual	63340.97	356	177.92	

Note. p<.05.

Table 25. Analysis of variance for moral commitment

Source	SS	df	MS	F Value
Primary Match	38.96	1	28.96	1.09
Differentiation	10.65	1	10.65	.40
Match x Differentiation	11.85	1	11.85	.44
Residual	10378.39	389	26.68	

Note. All F values were nonsignificant.

Table 26. Analysis of variance for continuance commitment

Source	SS	df	MS	F Value
Primary Match	149.43	1	149.43	10.02 *
Differentiation	8.16	1	3.16	.21
Match x Differentiation	13.40	1	13.40	.90
Residual	5934.93	298	14.91	

Note. p<.05.

Secondary Analyses

A closer examination of the dependent variables suggested the presence of ceiling effects as a potential contributor to the lack of support for the hypotheses. These ceiling effects were less of an impact on the satisfaction with advancement, affective commitment, and continuance commitment scales, which had reasonable means and standard deviations. When significant results were obtained in the proceeding analyses, they were primarily in these three dependent variables. The indicators suggest that alternate procedures that increase the distribution for the remaining dependent variables could uncover support for the hypotheses.

In order to address the issue of ceiling effects, an exponential function transformation was done on the satisfaction with coworkers, satisfaction with supervision, satisfaction with the work itself, and moral commitment scales. These transformations did not result in any additional significant findings, and are therefore not reported. While the exponential function transformation can be useful in a variety of situations, the relatively low number of items that comprise each of these scales did not allow for an effective stretching of the clustered distribution and the ceiling effects persisted. It is believed that including additional items may have helped address this concern. As evidence for this suggestion, bivariate correlations between fit (as a match between primary individual and environmental codes) and overall

measures of satisfaction and commitment were examined. The overall measures had the advantage of increasing the distribution, as many of the respondents at the ceiling of one of the scales were not simultaneously at the ceiling of the others. The resulting correlations between fit and satisfaction (r=.09, n.s.) and commitment (r=.15, p<.05) provided some support for this approach.

Finally, the data were reanalyzed to test for the possibility that respondents' employment status may have an impact on the results. In all cases but one, the results for the hypotheses when controlling for employment status were non significant. A positive significant (p<.05) relationship between fit and satisfaction with advancement was found for those who were currently employed versus those not currently employed. This finding is not surprising given that those respondents who were currently employed may be more sensitive and attuned to advancement issues than those not actively pursuing paid employment.

CHAPTER IV

DISCUSSION

The purpose of the present study was to broaden understanding of the experiences of volunteers in nonprofit organizations. Specifically, the research predicted that certain types of volunteers would be more represented in the sample than others, and that the distribution of these types would vary according to the focus of the volunteer organization. Further, it was expected that higher levels of person-environment fit would be positively associated with reported satisfaction and commitment, and that these relationships would be stronger for individuals with more consistent and differentiated types. Taken as a whole, the results offer limited evidence for the proposed hypotheses.

The assertion that the sample would include greater proportions of Social and Enterprising types relative to the remaining four types received only partial support. As expected, a significantly larger number of respondents than expected by chance -- nearly fifty percent of the sample -- were classified as Enterprising types. However, contrary to initial expectations, the proportion of Social types was not significantly different than that expected by chance. Instead, the sample contained a larger proportion of individuals classified as Conventional than anticipated.

The finding of a large number of Enterprising types in the current sample of volunteers supports earlier research (e.g., D'Braunstein & Ebersole, 1992) that has suggested that egoistic motivations (concerned with improving one's own welfare) are important determinants in decisions to volunteer. Holland's person-environment fit theory identifies Enterprising types as ambitious, extroverted and self confident individuals who typically enjoy activities that

contribute to organizational as well as personal goals. Based on these characteristics, one could assume that the Enterprising group members may choose to volunteer in order to socialize, to address professional or personal interests, because they like to feel needed and important, or due to an attraction to the goals or mission of the nonprofit organization. This supposition is similar to the findings reported by Sergent and Sedlacek (1990) that individuals chose to volunteer for purposes of growth and personal satisfaction. The present study provides additional evidence that volunteer motivations are not based solely on altruistic reasons, but that the decision process is perhaps more complex than often assumed. Future research should continue this investigation in order to build a comprehensive model of volunteer motivations.

Given the demographic make-up of the sample, it is not surprising that there was an unexpectedly large subgroup of volunteers who were classified in the Conventional category. Holland's theory of person-environment fit identifies traits such as careful, orderly and persistent as typical of a Conventional type. The "median" respondent to the Volunteer Experiences Questionnaire was an older, relatively affluent married white woman with some college education; characteristics, it could be argued, that lend themselves to conventionality and hence to the classification that was obtained. The Social type category was the third most frequently identified group in the present work, but the numbers did not reach a level of statistical significance as determined through Chi-square analyses.

An interesting consideration for follow-up in light of these results is whether the unexpected number of Conventional types obtained in this sample of volunteers would hold across studies. An alternate expectation is that utilizing a more demographically diverse sample of volunteers and nonprofit organizations (i.e., including a variety of socioeconomic,

racial and geographic backgrounds) would yield a higher than chance proportion of Social types as was originally proposed. This issue will be addressed again in a section to follow. A related concern is the lack of established population norms for the SDS measure discussed earlier, which precludes drawing any conclusions regarding the similarities and differences between the current sample and the population in general. It is not possible, for example, to know if the distribution of types for this group of volunteers is significantly different than that of the overall population despite the lack of significance of the distribution's difference than chance.

Contrary to initial beliefs, the pattern of the respondents' individual types did not vary according to the organizations that comprised the sample. These results suggest that it is not the case that different types of individuals are attracted to certain types of organizations, but rather that the group of volunteers under investigation in this study were primarily made up of Enterprising and Conventional types across the board. This observation held for analyses that looked at both the five individual organizations as well as a collapsed typology of the organizations' primary activities.

The lack of a systematic distribution of individual types by organization in this sample of volunteers does not support claims from earlier research. Sergent & Sedlacek (1990) found not only that volunteers differ from nonvolunteers in important ways, but that volunteers from a variety of organizations are often quite different as well. It was not found, for example, that the types of individuals represented in social service agencies in this sample differed from those in the cultural organizations. It may be that although the types of nonprofit organizations represented in the sample were different, the main types of volunteer activities and responsibilities were similar across the organizations. This similarity in the day-to-day work of

the volunteers could help account for the lack of support for this hypothesis. These results, in isolation, imply that organizations may not need to explicitly select specific subgroups of potential volunteers based on the nature of the work. Rather, organizations may need only to provide experiences and opportunities that match the needs of the Enterprising or Conventional types. However, additional research is needed before any definitive conclusions can be drawn on this topic.

A primary tenet in Holland's theory is that fit or congruence is associated with a variety of positive outcomes, including job satisfaction. The prediction that person-environment fit would be significantly and positively related to satisfaction with coworkers, supervision, advancement and the work itself for this sample of volunteers (Hypothesis 2) received mixed support at best. The originally proposed analytic strategies of bivariate correlations and multiple regression analyses utilizing the Kwak-Pulvino index of fit yielded no significant relations between fit and the four satisfaction indices. One potential explanation for this lack of support is that the K-P conceptualization of fit used in the current study may not be appropriate when applied in the context of volunteers and nonprofit organizations.

While the K-P index was chosen because of its consistency with the fundamental assumptions of Holland's theory along with the added precision that results from the inclusion of comparisons of secondary and tertiary codes, the index did little to assist in determining the nature of the relationships predicted in the hypothesis. However, supplemental analyses that reconceptualized fit as a match between only the primary individual and primary environmental codes did provide partial support for the original hypothesis.

Specifically, respondents with a match between their primary individual type and primary environmental model rated themselves as significantly more satisfied both with their

chance for advancement and the nature of the work itself. No significant differences were obtained for respondents' satisfaction with their coworkers or supervision. There are several possible explanations for these results. The first explanation deals with the issue of ceiling effects for the dependent variables which was discussed in Chapter III. Given that the measures of satisfaction with coworkers and satisfaction with supervision generally failed to effectively discriminate between scores, it is not surprising that the correlations between these measures and the measure of fit were nonsignificant. The satisfaction with work and advancement scales — those that were found, as expected, to be significantly and positively related to the reconceptualization of fit — were those without the same ceiling effect problems. Interestingly, the scales that did not have the ceiling effects pertained to organizational factors (work and advancement issues) while those that did exhibit measurement problems (the coworker and supervision scales) were interpersonal in nature. The use of alternate measures of satisfaction with coworkers and supervision that did not have the same limitations due to ceiling effects may result in additional evidence in support of the hypothesis.

In addition to the influence of ceiling effects, another contributing factor to the failure of the data to provide support could be the nature of the sample under investigation. The individual responding to the Volunteer Experiences Questionnaire may not have a single or stable group of supervisors or coworkers with whom they regularly interact. The volunteer's responsibilities may be individualistic in nature or the activities often conducted in isolation. Therefore, their responses to items regarding coworkers and supervision may have been relatively meaningless. However, their perceptions of their satisfaction with the actual work they do and their opportunities for advancement could be more salient, and could have contributed to the pattern of results obtained here. The Volunteer Experiences Questionnaire

did not obtain information either on the exact nature of the work being done by the volunteers or on the organizational structure of the nonprofits. For these reasons, research that would directly test these suppositions could shed additional, and much needed, light on the nature of the satisfaction-fit relationship.

While there have been no definitive conclusions regarding the nature of the fitcommitment relationship, past research (e.g., O'Reilly et al., 1991) has suggested that fit can be related to some aspects of commitment (such as value-based facets) but not others (such as compliance-based measures). For these reasons, the third hypothesis predicted that personenvironment fit would be positively and significantly related to levels of affective and moral commitment, but would be unrelated to continuance commitment. The results provided no evidence to confirm these predictions. In fact, the relation between fit and continuance commitment was significant, such that higher fit was associated with higher levels of continuance commitment. As was the case in Hypothesis 2 above, supplementary analyses utilizing the reconceptualization of fit as a match between primary codes only was able to provide partial support for the hypotheses. In addition to the significant relationship between fit and continuance commitment that was obtained in both the original and supplementary analytic procedures, respondents who displayed a match between their primary individual type and the categorization of their primary environmental model also reported higher levels of affective commitment. The relationship between moral commitment and fit remained nonsignificant even after conducting the supplemental analyses.

The continuance commitment facet taps into respondents' perceptions of the costs and risks associated with leaving an organization. Continuance commitment was not expected to be influential in this investigation, as it was assumed that the perceptions of the costs and risks

associated with leaving the nonprofit organization would not be strong for volunteers, who do not have any financial losses to expect from leaving. Interestingly, the volunteers in this sample did, in fact, show increased continuance commitment when they reported higher levels of organizational fit. The significant relation of fit to continuance commitment may be due in part to perceptions of sunk costs. Volunteers who have established a convenient routine and perceive a high degree of comfort at their volunteer placement may be hesitant to initiate change after both time and energy have already been invested.

The results from Hypothesis 3's supplementary analyses support earlier work by Schaubroeck and Ganster (1991) that found that affective commitment measures were positively related to volunteering. Higher congruence between the individual and environment, as reported here, may heighten this sense of identification with the organization, and therefore may account for this significant relation between fit and affective commitment. Volunteers with a higher degree of fit, then, may have an emotional attachment (affective commitment) to the organization to which they volunteer, but that connection does not necessarily bring with it a sense of obligation and responsibility (moral commitment). The findings warrant additional research and attention.

Holland's person-environment fit theory included the secondary concepts of consistency and differentiation. These concepts were proposed as integral parts of a holistic understanding of congruence. Therefore, Hypotheses 4 and 5 predicted that the relationship between performance and satisfaction or commitment facets would be stronger for individuals with higher levels of consistency versus those with lower levels of consistency. Likewise, Hypotheses 6 and 7 anticipated an interaction effect between fit and differentiation such that the relationship between fit and satisfaction or commitment would be stronger for volunteers

with higher degrees of differentiation versus lower levels. In this case, however, consistency and differentiation did very little to further refine the understanding of the relationship between fit and the satisfaction and commitment dependent variables.

Higher degrees of consistency, or relatedness between personality types or models, and differentiation, or degree of clarity or definition in type or model patterns, did not lead to more predictability in the relationship between fit and the outcomes. In light of the general lack of support that resulted from tests of Hypotheses 2 and 3, it is not surprising that neither consistency nor differentiation contributed additional predictive ability above and beyond the index of fit alone. These results held even when reanalyzing the data with the reconceptualization of fit as match between primary codes only.

The levels of reported consistency and differentiation were relatively high for this sample. This suggests that the respondents as a whole had a generally clear sense of their identity and that their personalities were well-defined and focused. The large proportion of older respondents (over half of the sample were fifty-five or older) may have influenced these findings. Older individuals, by virtue of their age and experience, may have developed more consistent and definitive personality patterns than younger respondents. Therefore, the usefulness of the consistency and differentiation constructs in this research may have been limited. However, their inclusion may be more powerful in situations where there is a greater degree of variability in respondents' levels of consistency and differentiation.

As was noted earlier, little work in the field of person-environment fit research directly addresses these two secondary concepts. In addition, these constructs are typically only included in attempts to define individual types. Future work could expand upon this limited research base by including consistency and differentiation in investigations of environmental

characteristics as well. In any case, the results obtained in the current study suggest that their inclusion in future work in the volunteer and nonprofit arena would not serve to further refine the understanding of these relationships, and therefore that future research continue to rely on assessments of person-environment congruence alone.

Limitations and Future Research

Discussions of the limitations of this study as well as directions for future research have been threaded throughout this chapter. Several of the key concerns that warrant particular consideration will be re-examined here, and specific suggestions for addressing them proposed. The major limitations include (1) methodology, encompassing the presence of ceiling effects in the dependent variables as well as concerns on the reliance on survey research, (2) sampling, including the issues of diversity and respondents' tenure and, ultimately, (3) the appropriateness of Holland's person-environment fit theory in volunteer and nonprofit populations.

A primary weakness of the present research concerned the presence of ceiling effects for several of the faceted dependent variables. As mentioned previously, findings of significance were typically only associated with the dependent variables that did not have major ceiling effect problems. Future researchers need to be attentive to the potential for this problem and should, therefore, attempt to utilize measures with greater sensitivity at the upper boundaries of the scales. This approach may help to discriminate between responses and may be able to more effectively detect differences were they may, in fact, exist. Only with adequate measurement can the theory of person-environment fit be fully tested as it applies to volunteer organizations.

As mentioned in Chapter III, the association between fit and composite measures of the dependent variables (whereby the faceted measures were combined into a single indicator, and therefore resulted in a larger number of items that could be used to detect differences) was stronger than the original individual correlations. These findings support a call for continued refinements of the methods used to measure the dependent variables. Future work, however, should continue utilizing faceted measures of satisfaction and commitment, as faceted measures are most useful for differentiating key aspects of the work environment.

While it was determined to be the most feasible methodology for the current research, caution regarding the reliance only on survey data is also warranted. For example, volunteers who were not satisfied and committed may have chosen not to complete and return the survey. Survey research of this type is by its nature a subjective process, and therefore issues of the accuracy of the data collected and the effects of presenting oneself in the most favorable light are important to recognize as limitations in drawing firm conclusions from the current data.

A second important limitation present in the current research concerns sampling, and in particular the lack of diversity in the sample population. Although some attempt was made to include a range of respondents in terms of their demographic characteristics, future research needs to directly focus on this issue. Targeting specific types of nonprofit organizations in specific geographic areas may help overcome this limitation in future work. For example, researchers might target community-based nonprofits in inner-city neighborhoods or rural areas in order to broaden the range of individuals and groups represented in the sample. Enhancing the diversity of future samples should shed additional light on the external validity of the findings, especially in regard to the types of individuals most likely to volunteer.

An additional sampling issue concerns the level of respondents tenure, in that those who were dissatisfied and not committed may have already left the organization which would provide a skewed picture of the actual state of affairs in respect to these two outcomes. In order to examine the influence of tenure on these outcomes, the hypotheses were reanalyzed controlling for this variable. The same pattern of results were found, suggesting that tenure did not, in fact, have a significant influence on the data in this research. Future studies should pay close attention to this potential concern.

Holland's theory posits that satisfaction and other related outcomes depend on the congruence between one's personality and the environment in which one works. Most research to test the model has generally supported these assumptions. Based on the limited support reported here, however, Holland's person-environment fit theory appears not to be a useful framework for examining and understanding the volunteer's experience in volunteer organizations. Holland's work originated as a practical tool developed primarily for vocational counseling, and while the theory has since been applied to a wide variety of settings and populations, the results here suggest that extending that realm into the nonprofit arena may be inappropriate.

Future research could examine alternative theoretical frameworks and conceptualizations of fit that may prove more applicable to these specific situations. These alternative perspectives from which to address fit may include, for instance, comparisons of individual values and organizational culture or the relation between individual needs and the organization's reinforcement systems and structures. The results of this study in isolation are not enough to base firm conclusions regarding the adequacy of the hypothesized relationships. It appears too early to know whether the suggested importance of the influence of fit on the

volunteer experience should be completely disregarded. Additional research investigating alternate approaches seems warranted as a next step to exploring these relationships.

It could be the case, though, that continued efforts in investigating the fit-outcome associations in the nonprofit sector confirm the preliminary results obtained here. The alternate conclusion that may then be drawn from these results, if this is the case, is that the influence of fit between a volunteer and the environment of his or her placement is negligible. Alternative means of maximizing volunteers' satisfaction and commitment — outside of attempting to match them with appropriate volunteering environments and activities — may then be warranted. Holland's theory assumes that the choice of a vocation is an expression of personality, and further asserts that inventories of interests are useful tools for exploring the appropriateness of these choices. It may be, instead, that the choice of a volunteer placement says less about one's personality than anticipated and perhaps is more guided by external factors such as convenience of scheduling, proximity to one's home, explicit or implicit pressure from employers, or prior personal contact with the organization. In fact, the volunteer experience is generally non-career related, which may account for the inability of the current work to establish previously reported associations between fit and the satisfaction and commitment outcomes.

Regardless of the exact nature of future research, inquiries that continue in the tradition of examining volunteers and nonprofit organizations is essential. While the present study suggests that this sample of volunteers are a satisfied and committed group, much additional research is needed on this growing population. The third sector is being increasingly called upon in our communities and neighborhoods, and these increases in service provision are sure to be coupled with growing competition for the limited pool of volunteer assistance.

Organizations will need to find ways to do more with less and social science researchers and practitioners can act as valuable resources to them. Furthering our knowledge about the fundamental relationship between the organization and volunteers who do its work can be a crucial determinant in their continued viability and vitality.

CHAPTER V

SUMMARY

The theory of person-environment congruence, or fit, has been widely used in efforts to examine the match between an organization and its employees. The most widely used person-environment fit theory is that developed by Holland (1973, 1985). Four assumptions underlie the theory: (1) individuals can be classified into six primary types; (2) environments also can be assessed against six primary models; (3) individuals seek congruence in their situations and activities; and (4) behavior results from the interaction of both individual and environmental components.

The current research examined the relation between person-environment congruence and the outcome variables of job satisfaction and commitment for volunteer employees in nonprofit organizations. Surprisingly, little organizational research has been conducted with this population, although volunteers are a critical and fundamental human resource in these organizations. The research expected that certain types of individuals would be overrepresented in the overall sample of volunteers. In addition, it was hypothesized that volunteers who perceive a match between their personal characteristics and the environment at their volunteer placements would report higher levels of satisfaction and commitment.

In order to test these hypotheses, a survey was conducted with the volunteer workforce of five nonprofit organizations. The final sample resulted in a total of 535 respondents. The survey included measures of personal and environmental characteristics, job satisfaction and commitment, in addition to the collection of demographic information. Nearly fifty percent of the sample were classified as Enterprising types. The results further indicated that the

originally proposed conceptualization of congruence was not effective in this population. An alternate index of fit provided partial support for positive associations between fit and measures of satisfaction and commitment. Specifically, statistically significant relationships were reported between congruence and satisfaction with work, satisfaction with advancement, continuance commitment, and affective commitment.

Possible explanations for the lack of comprehensive support for the study's hypotheses include the presence of ceiling effects with some of the dependent variable scales and the inadequacy of applying person-environment fit to the understanding of volunteer experiences.

Additional limitations and directions for future research are discussed.

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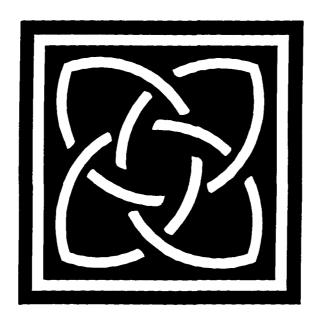
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APPENDIX A

VOLUNTEER EXPERIENCES QUESTIONNAIRE



THANK YOU FOR PARTICIPATING IN THIS STUDY BEING CONDUCTED AT DEPAUL UNIVERSITY. THIS QUESTIONNAIRE WILL ASK YOU ABOUT YOUR INTERESTS AND SKILLS, AS WELL AS YOUR THOUGHTS AND FEELINGS ABOUT YOUR VOLUNTEERING EXPERIENCE. PLEASE REMEMBER THAT ALL THE INFORMATION YOU PROVIDE WILL BE KEPT STRICTLY CONFIDENTIAL AND WILL ONLY BE USED FOR RESEARCH PURPOSES.

Instructions are provided for each of the sections of the questionnaire. Please keep in mind that sections II and III ask you to mark a response in **BOTH** column A and column B for each item. Items asking about your 'organization' refer to the organization you currently volunteer for.

SECTION I: ABOUT YOURSELF

Instructions - For each item, \square the appropriate response.

1.	I am:	8. .	The highest level of education I have
	☐ Male		completed is:
	☐ Female		☐ less than high school diploma
_	_		high school diploma or GED
2.	I am:		some college
	24 or younger		☐ college graduate
	25-34		☐ some graduate courses
	□ 35-44		☐ graduate degree
	45-54		
	□ 55 or older	9.	On average, the number of hours I volunteer each week is:
3.	My annual income:		☐ less than 2 ☐ 11-15
	☐ less than \$25,000		□ 2-5 □ 16 or more
	2 \$25,000 - \$49,999		1 6-10
	□ \$50,000 or more		
		10.	I have been a volunteer at this organization
4.	The annual income of my household: less than \$25,000		for month(s)
	\$25,000 - \$49,999	11.	My primary tasks or activities at this
	☐ \$50,000 or more		organization are:
	☐ I live alone		
_	•		
5 .	I am:		
	□ Single		
	☐ Married/Committed Relationship	12.	-
	Widowed		organization.
	☐ Divorced/Separated		□ No
_	•		☐ Yes
6.	My race/ ethnicity is:	••	* 140.0 . 1
	☐ Caucasian/White	13.	
	☐ African-American		organization, I also (check all that apply):
	☐ Hispanic		work full-time
	Asian/Pacific Islander		work part-time
	Other		am a student
-	A.f., and the contract of		volunteer at another placement
7.	My religious affiliation is:		am retired
	Catholic		none of the above
	□ Protestant		
	☐ Jewish		
	Muslim		
	Other		
	□ None		

SECTION II - ACTIVITIES

INSTRUCTIONS - READ EACH OF THE ACTIVITIES LISTED BELOW. FOR EACH ACTIVITY

- A PLACE A ☑ IN 'LIKE' BOX IF IT IS AN ACTIVITY THAT YOU ENJOY OR WOULD LIKE TO DO OR
 A ☑ IN THE 'DISLIKE' BOX FOR THOSE ACTIVITIES THAT YOU DO NOT OR WOULD NOT ENJOY
 AND
- Ø (B) PLACE A ☑ IN 'YES' BOX IF IT IS AN ACTIVITY THAT THE ORGANIZATION YOU VOLUNTEER

 FOR ENCOURAGES YOU TO PURSUÉ OR VALUES, OR A ☑ IN THE 'NO' BOX FOR THOSE ACTIVITIES

 THAT THE ORGANIZATION DOES NOT VIEW AS IMPORTANT OR VALUED.

		4.		В.			
	An acti	vity you		An activity your			
	like or	dislike?		volunteer organization			
				encourage	es/ values?		
Activity	Like	Dislike	1	Yes No			
14 Fix electrical things	0	8		8 8 8			
15. Take physics course							
16. Create portraits or photographs		•			•		
17. Belong to social clubs							
18. Influence others		•		a			
19. Type papers or letters for yourself or others	ū						
20. Build things with wood							
21. Build rocket models	a						
22. Read plays				0	•		
23. Help others with their personal problems	Q						
24. Sell something		•		0			
25. Add, subtract, multiply, and divide numbers							
in business, or bookkeeping							
26. Work on a hot rod or motorcycle	0	0			0		
27. Work in a laboratory							
28. Take art course		0					
29. Take care of children				0	0		
30. Discuss politics	0	Ο.		0			
31. Operate business machines of any kind							
32. Take woodworking course		0		•			
33. Read about special subjects on my own							
34. Practice a musical instrument	O.	•		0	0		
35. Read psychology books			20220000				
36. Serve as an officer of any group	•			0	•		
37. Take commercial math course							
38 Drive a truck or tractor	ū			0	9		
39. Take geometry course							
40. Design furniture or buildings							
41. Attend meetings and conferences							
42 Supervise the work of others					<u>a</u>		
43. File letters, reports, records, etc.							
44. Repair cars 45. Read scientific books or magazines					9		
G - 1							
46. Sketch, draw or paint 47. Write letters to friends					0		
48. Operate my own service or business							

	•		A.	1	В.			
		An acti	vity you		An activity your			
			dislike?	i	volunteer organization			
		H			encourage	es/ values?		
	Activity	Like	Dislike		Yes	No		
49.	Keep your desk and room neat	Q						
50.	Fix mechanical things	•				2		
51.	Work on a scientific project					a		
52.	Attend plays	8	•		0			
53.	Attend religious services				0	0		
54.	Attend conferences		9			0		
<i>5</i> 5.	Keep detailed records of expenses					u l		
56.	Use metal working or machine tools					ū		
<i>5</i> 7.	Work with a chemistry set	Q						
58.	Play in a band, group or orchestra					ū		
59 .	Go to parties	Q				0		
60.	Give talks				•	Ð		
61.	Take computer course	Q						
62.	Take shop course	•				۵		
63.	Solve math or chess puzzies					0		
64.	Go to recitals, concerts, or musicals					0		
65.	Dance	0			0			
66.	Meet important people				0	Ü		
67.	Take business course	0				0		
68.	Take mechanical drawing course	0				0		
69.	Take chemistry course				0			
70.	Read popular fiction				3	O.		
71.	Go to sports events							
72.	Lead a group in accomplishing some goal		•			0		
73.	Take bookkeeping course							
74.	Take automechanics course	0	0			3		
75.	Take biology course							
76.	Read or write poetry					0		
77.	Make new friends		Q					
78.	Participate in a political campaign	0				0		
79.	Write business letters					0		

SECTION III - SKILLS & ABILITIES

INSTRUCTIONS - READ EACH OF THE SKILLS AND ABILITIES LISTED BELOW. FOR EACH

- ✓ (A) PLACE A ☑ IN 'YES BOX IF IT IS AN ABILITY THAT YOU HAVE OR COULD DO OR A ☑ IN THE
 'NO' BOX FOR THOSE ABILITIES THAT YOU DO NOT HAVE OR COULD NOT DO.

 AND
- Ø (B) PLACE A ☑ IN 'YES' BOX IF IT IS AN ABILITY THAT THE ORGANIZATION YOU VOLUNTEER

 FOR REQUIRES OR COULD BENEFIT FROM OR A ☑ IN THE 'NO' BOX FOR THOSE ABILITIES THAT

 THE ORGANIZATION DOES NOT REQUIRE OR USE.

	you	A. or ability have?		B. A skill or ability the organization requires or uses?		
Skills & Abilities	Yes	No		Yes	No	
80. I have used wood shop power tools such as power-saw or lathe or sander.	0					
81. I can play a musical instrument						
82 I have been elected to an office in high school or college					ū	
83. I understand how a vacuum tube works						
84. I am good at explaining things to other						
85. I can type 40 words a minute				Q		
86. I know how to use a volumeter	D	•		0	0	
87. I can participate in 2 or 4 part choral singing						
88 I can supervise the work of others						
89. I can name three foods that are high in						
protein content						
90. I have participated in charity/benefit drives		0			O.	
91. I can operate a computer						
92. I can adjust a carburetor	Ō	0		0	0	
93. I can perform as a musical soloist		0				
94 I have unusual energy and enthusiasm	0				0	
95. I understand the "half-life" of a radioactive element						
96. I cooperate and work well with others						
97. I can take shorthand		O I				
98. I have operated power tools such as a drill		•				
press or grinder or sewing machine						
99. I can act in a play						
100. I am good at getting people to do things my		ш				
Way						
101. I can use logarithmic tables						
102. I am competent at entertaining people older than I	0	0		D		
103. I can file correspondence and other papers						
104. I can refinish varnished or stained furniture or woodwork					ū	
105. I can do interpretive reading			*********			
106. I am a good salesperson					Ö	
107. I can use a calculator to multiple or divide			2000			
108. I am a good host/hostess	Ō	Ö		Ö	ā	

	_		7					
•	DR -	A. or ability	A I	B. A skill or ability the				
	29	or admity have?	!	organization require				
	you	Have		or uses?				
Skills & Abilities	Yes No			Yes No				
109. I have held an office job			ii i					
110. I can read blueprints	Ö	T a						
111. I can do modern interpretive or ballet			*******					
dancing	l	l .						
112. I have acted as leader for some group in	B	0			0			
presenting suggestions or complaints to a								
person in authority								
113. I can use a microscope								
114. I can teach children easily 115. I can do bookkeeping processes								
115. I can do bookkeeping processes 116. I can make simple electrical repairs								
117. I can sketch people so that they can be								
recognized	_	-	l i	_				
118. I won an award for work as a salesperson or								
leader								
119. I can identify three constellations of the stars		ū						
120. I can plan entertainment for a party	0	Θ						
121. I can do a lot of paper work in a short time								
I 22. I can repair furniture 123. I can do a painting or sculpture	0	<u> </u>			0			
123. I can do a painting or sculpture 124. I have organized a club or group								
125. I can describe the function of the white								
blood cells				-				
126. I am good at helping people who are upset or								
troubled								
127. I can use a calculator				0	0			
128. I can make mechanical drawings		<u> </u>			□			
129. I can make pottery								
130. Thave started my own business or service 131. I can interpret simple chemical formulae								
132. I have worked as a volunteer aide in a		J						
hospital, clinic, or home								
133. I can use simple data processing equipment	0		-0075XXX					
134. I can make simple repairs on a TV set	0				0			
135. I can design clothing, posters or furniture								
136. I know how to be a successful leader		0		a (<u> </u>			
137. I understand why man-made satellites do not fall to the earth				a				
138. I can plan school or church social affairs					Θ			
139. I can post credits and debits								
140. I can make simple plumbing repairs		Ö		Ō	D			
141. I write stories or poetry well					۵			
142. I am a good dehater					O			
143. I have participated in a scientific fair/contest								
144 I am a good judge of personality 145. I can keep accurate records of payments or					0			
145. I can keep accurate records of payments or sales				Q				
Jaios		ليبيي			لحصيصيا			

SECTION IV - VOLUNTEER EXPERIENCES

INSTRUCTIONS -

PLACE A ☑ IN 'YES' BOX IF IT IS A STATEMENT THAT YOU AGREE WITH; A ☑ IN THE 'NO' BOX FOR ITEMS THAT YOU DISAGREE WITH; OR A ☑ IN THE '?' BOX FOR ITEMS THAT YOU ARE UNDECIDED. PLEASE KEEP IN MIND THAT THE FOLLOWING ITEMS REFER TO THE ORGANIZATION YOU VOLUNTEER FOR.

		Yes	No	?
146.	My coworkers are boring	•		
147.	My supervisors are hard to please.		0	
148.	My work is satisfying.	a		9
149.	There are good opportunities for advancement at my			
	organization.			
150.	My coworkers are slow.		3	•
151.	My supervisors are impolite.		0	Q
152.	My work is boring.	E	8	10.5
153.	There is a good chance for advancement at my organization.			
154.	My coworkers are stupid.			
155.	My supervisors are tactful.	0		
156.	My work is good.	8	0	3
157.	Opportunities are somewhat limited at my organization.	0		Q
158.	My coworkers are intelligent.			2
159.	My supervisors are quick tempered.			
160.	My work is tiresome.	0	9	a
161.	My job is a dead-end job.	0		
162.	It is easy to make enemies of my coworkers			
163.	My supervisors are annoying.			
164.	My work is challenging.		0	a
165.	Advancement is based on ability at my organization.	0		
166.	My coworkers are lazy.		0	0
167.	My supervisors are stubborn.			
168.	My work gives me a sense of accomplishment.	9	•	
169.	My organization has an unfair advancement policy.			

SECTION V - VOLUNTEER ORGANIZATION

INSTRUCTIONS - READ EACH OF THE ITEMS BELOW.

FOR EACH, CROSS IT THE NUMBER BETWEEN 1 (STRONGLY DISAGREE) AND 7 (STRONGLY AGREE) CORRESPONDING TO THE AMOUNT YOU AGREE OR DISAGREE WITH THE STATEMENT.

	Si	trongly	Neither Agree Nor				Strongly		
	D	isagree		Dis	agre	e		Agree	
170.	It would be very hard for me to leave the organization I volunteer for right now, even if I wanted to.	O	2	6	•	6	6	Ø	
171.	I have too much invested in the organization I volunteer for to leave it.	Œ	2	9	④	9	6	Ø	
172.	It would not be too costly for me to leave the organization I volunteer for in the near future.	Ð	2	9	③	9	6	Ø	
173.	I feel it is my duty to support the organization I volunteer for.	O	2	3	④	5	6	2	
174.	While I am in public, I think of myself as part of the organization I volunteer for.	O	2	3	④	9	6	Ø	
175.	I am dedicated to the organization I volunteer for.	O)	2	3	④	(5)	6	Ø	
176.	I get upset when people say negative things about the organization I volunteer for.	D	.2	3	④	5	6	Ø	

SECTION VI - YOUR FEELINGS

INSTRUCTIONS: MOST PEOPLE HAVE SPECIFIC FEELINGS ABOUT THEIR ORGANIZATIONS. WHEN YOU THINK OF THE ORGANIZATION YOU VOLUNTEER FOR, WHAT FEELINGS DO YOU EXPERIENCE?

✓ PLEASE CHOSE THE NUMBER WHICH BEST REPRESENTS YOUR FEELINGS BETWEEN THE TWO
EXTREMES AND MARK ☑ FOR EACH PAIR OF DESCRIPTORS.

177	Cold	0	Ø	3	•	(D	6	Ø	Warmth
178.	Hate	O O	2	3	④	⑤	6	Ø	Love
179.	Affection	O.	Ø	3	•	9	6	Ø	Contempt
180.	Detachment	Ф	②	3	•	⑤	6	Ø	Belonging
181.	Loyalty	O .	O	3	•	(5)	6	Ø	Disloyalty
182.	Boredom	Ф	2	3	④	5	6	Ø	Excitement
183.	Sadnesa	O.	0	3	•	G	6	Ø	Happiness
184.	Disgust	0	2	3	④	(5)	6	Ø	Fondness
185.	Comfort	O.	0	3	(4)	(3)	6	Ø	Discomfort
186.	Lifelessness	0	2	3	④	⑤	6	Ø	Spiritedness
187.	Anger	O.	Ø	3	④	(5)	(5)	Ø	Peace
188.	Ecstasy	0	2	3	④	⑤	6	Ø	Agony
189.	Pleasure	O.	0	3	•	(5)	6	Ø	Pain
190.	Despair	①	2	3	④	⑤	6	Ø	Hope

APPENDIX B

Correlations Between Holland's Codes Used in K-P Index Calculations

Code Pair	Correlation Coefficient
RI or IR	.46
RC or CR	.36
RE or ER	.30
RS or SR	.21
RA or AR	.16
IC or CI	.16
IE or EI	.16
IS or SI	.30
IA or AI	.34
AC or CA	.11
AE or EA	.35
AS or SA	.42
SE or ES	.54
SC or CS	.38
EC or CE	.68

APPENDIX C

DePaul University Research Opportunity

DePaul University Department of Psychology is conducting research on volunteers in nonprofit organizations. We are looking for nonprofit groups willing to collaborate with us on this exciting and important project. Collaboration would involve providing access to survey the organization's volunteers (the anonymous and confidential survey takes approximately 20 minutes to complete) in exchange for a report of the research results that will provide information on the selection and retention of volunteers as well as indicators of their satisfaction and commitment. All administrative and data collection issues will be handled by DePaul.

FOR MORE INFORMATION CONTACT:

Amy Schoeny
DePaul University
Department of Psychology
2219 N. Kenmore Avenue
Chicago IL 60614
(312) 404-9823

Email: acarroll@wppost.depaul.edu

APPENDIX D

DEPAUL UNIVERSITY RESEARCH ON VOLUNTEERS LETTER OF UNDERSTANDING

The following information is based upon a October 22, 1996 conversation between Amy Carroll Schoeny, doctoral candidate in Industrial/Organizational Psychology at DePaul University, and

Programs Manager at the

The research opportunity described is Ms. Schoeny's doctoral dissertation on volunteers in the nonprofit sector. In particular, the research will examine indicators of respondents' satisfaction and commitment with their volunteer experiences.

In exchange for and the providing a list of the volunteer's names and mailing addresses, Ms. Schoeny will provide the following:

DEVELOPMENT OF SURVEY INSTRUMENT:

A working draft of the survey instrument has been developed which includes items on the types of activities the volunteers prefer and that the organization they volunteer for offers, a personal assessment of their skills and abilities and whether these skills are required at their volunteer placement, measures of job satisfaction and organizational commitment and a demographics section that will be useful in looking at various subgroups of respondents.

PRINTING AND DISTRIBUTION OF THE SURVEY:

Costs associated with the printing, distribution and postage-paid return of the survey will be borne by Ms. Schoeny. Survey packets will include a letter of encouragement to participate provided by Ms. Mezydlo or another representative from the an instructions page and explanation of the research, the survey booklet and a postage-paid return envelope. The list of volunteers' names and addresses will be kept strictly confidential and will be used for research purposes only.

COLLECTION AND ANALYSIS OF DATA:

Surveys will be returned directly to DePaul University for analysis in order to further ensure the confidentiality and anonymity of the survey responses. Pretests of the survey indicate it takes approximately twenty to twenty-five minutes to complete.

REPORT OF FINDINGS:

At the conclusion of the research, a report will be prepared by Ms. Schoeny summarizing the results of the project, providing implications for organizations who rely on volunteer services and suggesting additional areas of future research. Results will be provided in summary form only; at no time will individual survey responses be disclosed.

Once Ms. Schoeny and reach an agreement to pursue this collaborative research, the survey instrument will be finalized and a work plan will be developed.

Regi Mezydlo		Amy Schoeny	
	Docent/Voluntier Programs SIGNATURE	amy Schany	
10-31-1996	Manager	10/31/94	
would like a co	egy of the		
Survinory Rips	ili ·	TOTAL P.02	

APPENDIX E





Department of Psychology 2219 North Kenmore Avenue Chicago, Illinois 60614-3504 312/325-7887

Dear Volunteer:

The organization you volunteer for has agreed to participate in a research project being conducted by the Department of Psychology at DePaul University. The project is an effort to gain a better understanding of some factors that influence the work of volunteers like yourself—the activities you prefer, your skills and abilities, as well as your feelings about your volunteer experiences.

Your participation is essential to this project. Not only does it provide you an opportunity to voice your opinion on your volunteer experiences, but in addition, the results will be used to inform nonprofits including the organization you volunteer for on how best to attract and retain volunteers who get the most out of their placements.

Enclosed you will find: (1) a letter of support from your organization; (2) the Volunteer Experiences Questionnaire; and (3) a return envelope. Pre-tests of the survey indicate it takes only 20-25 minutes to complete. Completed surveys should be folder and placed in the postage-paid return envelope. These envelopes will be returned directly to DePaul University. Please do not put your name or other identifying information on the survey booklet, as all the information you provide is anonymous and confidential. Because several organizations are participating in the research, the return address labels have been coded so we can track which organization the survey comes from — this code in no way can identify you individually.

At the completion of the study, each of the organizations participating in the research will receive a report of the results which they are encouraged to share with you directly. Results will only be presented in summary form; at no time will information be released about any individual respondent.

In order to have your opinions included in the results, please return your completed survey within three weeks.

Thank you in advance for your participation!

Sincerely,

any Schoeny, M.A.

APPENDIX F

November, 1996

Dear Volunteer:

An exciting opportunity has been presented to . and we can all benefit by participating in this interesting project. Your cooperation and interest in a volunteer survey is requested.

As the new state-wide volunteer coordinator, I have met many of our volunteers, however this may be my first contact with some of you. The new volunteer coordinator's job responsibilities include identifying our current volunteers and their positions and improving agency support to volunteers. This survey is being sent out to Nice Twice volunteers state-wide, and it will enable us to evaluate our resale shop volunteer program.

Amy Carroll Schoeny is a doctoral candidate in Industrial/Organizational Psychology at DePaul University. She is completing research for her dissertation on volunteers in the not-for-profit sector. The purpose of the research is to examine volunteer satisfaction and commitment to their volunteer experiences.

Amy has developed a survey which will examine the types of activities volunteers prefer and that the organization offers. It includes an assessment of volunteer skills and abilities, measures of job satisfaction, agency commitment to volunteers and demographic information. The findings of the survey will be summarized and provided to . The information and implications will be valuable to the continuing support and improvement of volunteer programs. The survey should take about tifteen minutes to complete. At no time will individual survey responses be disclosed.

I would like to thank you in advance for completing this survey. Your time will be well spent, and as always, your work as a volunteer for and our mission is appreciated by the agency and the people we serve. You may call your Area Director or call me at ext. for additional information and questions.

Sincerely,

Volunteer Coordinator