A STUDY OF THE EXCHANGE OF RESOURCES IN THE WORK PLACE UTILIZING THE REVISED BERG/WIEBE RESOURCE EXCHANGE SCALE

A Dissertation Presented for the Doctor of
Philosophy Degree

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I am submitting herewith a dissertation written by Larry Gene Bailey entitled "A Study of the Exchange of Resources in the Work Place Utilizing the Revised Berg/Wiebe Resource Exchange Scale". I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Business Administration, with a major in Management.

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DEDICATION

This dissertation is dedicated to the loving memory of my father-in law. Mr. Homer B. Benton and to my dear friend Mrs. Bennie V. Roberts. who always encouraged me to continue my education and supported me in every way to achieve this doctoral degree.

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ABSTRACT

A STUDY OF THE EXCHANGE OF RESOURCES IN THE WORK PLACE UTILIZING THE REVISED BERG/WIEBE RESOURCE EXCHANGE SCALE

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This research examined the exchange of resources in the work place and the level of satisfaction with those exchanges by employing the Revised Berg/Wiebe Resource Exchange Scale (Berg and Wiebe, 1986, 1989). Two issues that have been studied in past research by Berg and Wiebe (1986, 1989) and Johnson (1995) concerning Foa and Foa's (1974) Resource Exchange Theory were investigated. These issues include the level of satisfaction with the exchange of resources based on proximity and with the exchange of particular types of resources (intrinsic/extrinsic). The Individualism-Collectivism Scale developed by Triandis (1995) was also utilized with the Revised Berg/Wiebe Resource Exchange Scale to expand the research concerning these issues by attempting to establish domains as described by Deutsch (1975) for exchanges in the work place. The sample consisted of 175 employees of a health care facility in Mississippi.

The results of the study offered support for the past research by Berg and Wiebe (1986, 1989) and Johnson (1995). As predicted, the employees' level of satisfaction was higher for the exchange of resources that were closer in proximity and for the exchange of intrinsic resources.

This study represented an initial attempt to establish domains described by Deutsch (1975) for the exchange of resources in the work place. Resource Exchange

Theory was utilized to measure the level of satisfaction of employees who perceived themselves as performing their jobs in "naturally occurring" work groups (i.e. collectivistic) and of employees who perceived themselves as working as individuals (i.e. individualistic). With some exceptions, the results indicated that the "collectivistic" employees had a higher level of satisfaction for the exchange of the resources that were closer in proximity and for the intrinsic resources. The "individualistic" employees did not have a significant difference in their satisfaction level for the resources in relation to proximity or intrinsic/extrinsic resources except where exceptions were noted. Analysis of the data indicated that the Revised Berg/Wiebe Resource Exchange Scale is a reliable and valid instrument and that the results obtained from the administration of the scale should not be affected by the demographic variables examined in the study.

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CHAPTER I

INTRODUCTION

Exchange of resources takes place in a market where buyers and sellers meet. Commodities were not bought or sold in the early days of bartering, but were actually exchanged for one another (Foa, Tornblom, Foa, and Converse, 1993). Money was the one commodity that eventually became standardized and widely accepted. The money-merchandise exchange is only one of many forms of exchange that takes place between individuals in everyday life. Money is exchanged for resources such as services and information. For example, an individual pays a plumber for repairing the pipes and the gardener for improving the landscape. Individuals pay for information when they buy a newspaper or register for a course. Foa, Tornblom, Foa, and Converse (1993) concluded that these exchanges were viewed with caution by economists, as they failed to fall easily into the money-commodities exchange.

A number of social scientists have attempted to extend the economic model to include all forms of interpersonal exchanges even though economists were reluctant to extend the model beyond the financial domain (Bivens, 1976; Boulding, 1973; Diesing, 1962; Deutsch, 1975; Foa and Foa, 1974; Kuhn, 1975; Paolucci, Hall, and Axinn, 1977). According to Foa, Tornblom, Foa, and Converse (1993), exchanges such as expressions of esteem and respect and friendship and love have taken place. Goods, services, and information have been exchanged with expressions of gratitude, admiration, or affection rather than with money. Berg and Wiebe (1993) claimed that even at the most general level, an individual can distinguish between economic resources such as money, goods, and labor and interpersonal resources such as love or status. Few interactions involve the exchange of only economic or interpersonal resources (Buss, 1983). Many of the resources people exchange involve both economic and interpersonal benefits (Berg and Wiebe, 1993).

The trend toward extension of the economic model to non-economic exchanges was begun because of the success of the model in predicting market behavior (Foa and Foa, 1980). Numerous theories concerning interpersonal exchanges and the effects these exchanges have on various types of relationships have emerged from the study of Social Exchange Theory. Researchers have assumed that much of human behavior can be best understood through studying resources and benefits people give and receive from others and the rules that govern the exchange (Berg and Wiebe, 1993).

A number of theories of resource exchange have emerged from Social Exchange Theory. Resource Exchange Theory developed by Foa and Foa (1974) attempted to include the basic concepts of Social Exchange Theory while at the same time encompassing the basic ideas of other disciplines. The theory provides a framework through which different kinds of resources can be determined in a manner that reflects similarities and differences in the behaviors that motivate exchange and the effects of exchanges of different resources. The theory classifies the rewards and punishments of interpersonal encounters into six classes that are classified along the dimension of particularism-universalism and concreteness-symbolism. While other theories of social exchange have emphasized one or more classes, Foa and Foa's (1974) theory conceptualizes all classes of resources within a single framework that takes into consideration their similarities and differences.

Foa and Foa's (1974) Resource Exchange Theory has been applied in many different situations: however, the majority of these situations has been concerned with interpersonal interactions. The theory has been generally applied in areas involving friendship (Bliesszner, 1993; Foa and Foa, 1980; Shea, Haslam, 1995; Thompson, and Bliezner, 1988; Tornblom and Fredholm, 1984; Tornblom, Fredholm, and Jonsson, 1987; Beach and Carter, 1976), family (Teichman and Foa, 1975; Donnenwerth, Teichman, and Foa, 1973), intimates (Berg and McQuinn, 1986; Cate, 1981; Clark, 1981; L'Abate and Hewitt, 1988; Tornblom, Fredholm, and Jonsson, 1987), marriage (Gaines, 1994a, b, 1997; Rettig, 1980; Rettig and Bubolz, 1983; Warner, Lee, and Lee, 1986), and culture (Foa and Krieger, 1985; Stangl, 1989; Tornblom, Jonsson, and Foa, 1985; Walbridge, 1984).

The application of Resource Exchange Theory has been expanded to include other situations such as marketing (Brinberg and Castell, 1982; Brinberg and Ganesan, 1993; Brinberg and Wood, 1983), organizations (Griesinger, 1990; Kleyn, 1989), and the work place (Berg and Wiebe, 1986, 1989, 1993; Johnson, 1995). In particular, researchers in business organizations have become interested in the study of which resources are exchanged, how these resources are exchanged, and the satisfaction of these exchanges in the work place. Berg and Wiebe (1986) argued that the work setting is one in which exchanges of many different types of resources occur and that the exchanges should not be limited to the economic view of the exchange of services for money. Using an instrument specifically designed to measure resource exchange in the work place. Berg and Wiebe (1986) developed the Berg/Wiebe Resource Exchange Scale. Berg and Wiebe (1989) utilized the scale and found that exchanges in the work place include not only time and effort for money, but many exchanges which involved more "social" resources such as information, status, positive affect or benefits that were unique to an employee's particular job. The authors grouped the benefits that were unique to the subject's employment into a variable they labeled "work itself".

The results of Berg and Wiebe's (1986, 1989) studies provided evidence that Resource Exchange Theory can be employed to help researchers examine the exchange of resources that take place at the work place. The purpose of a study by Johnson (1995) was to evaluate the reliability and validity of the Berg/Wiebe Resource Exchange Scale and to examine two issues involving Foa and Foa's (1974) Resource Exchange Theory. The first issue concerned the level of satisfaction with the exchange of particular resources based on proximity. The second issue examined the overall satisfaction with the exchange of intrinsic resources when compared with the exchanges of extrinsic resources. These issues were examined to determine if the Berg/Wiebe Resource Exchange Scale measured some of the same issues identified in previous research.

Johnson (1995) found that the Berg/Wiebe Resource Exchange Scale was a reliable and valid instrument for measuring the exchange of resources at the work place and the level of satisfaction with these exchanges. The results of the reliability and validity procedures indicated that this instrument is one that can be used in most work settings to evaluate the exchange of resources. The study also indicated that resources other than money and services are exchanged in the work place.

Johnson (1995) found no support for the hypothesis concerning the satisfaction of resources based on proximity and very weak support for the hypothesis concerning the satisfaction of resources when comparing intrinsic and extrinsic resources. Results of the study revealed no significant difference between demographic variables and overall satisfaction with exchange of resources. Johnson (1995) argued that the Berg/Wiebe Resource Exchange Scale can be used to measure the exchange of resources and the level of satisfaction with exchanges at any type of work place.

Purpose of the Study

Studies by Berg and Wiebe (1986, 1989) and Johnson (1995) are important and useful for understanding the application of Foa and Foa's (1974) Resource Exchange Theory to the exchanges of resources in the work place. Berg and Wiebe (1986, 1989) developed the Berg/Wiebe Resource Exchange Scale from the concepts contained in the research concerning Foa and Foa's (1974) Resource Exchange Theory. Tests for reliability and validity of the scale were not done until Johnson (1995) found the Berg/Wiebe Resource Exchange Scale to be a valid and reliable instrument for measuring the exchange of resources in the work place and the level of satisfaction with the exchange. However, Johnson's (1995) results failed to show that the Berg/Wiebe Resource Exchange Scale can be used to measure several of the issues that have been included in the conclusions of past research concerning Resource Exchange Theory developed by Foa and Foa (1974).

The purpose of this study was to examine the exchange of resources in the work place and the level of satisfaction with these exchanges by employing a revised version of the Berg/Wiebe Resource Exchange Scale. The study also examined two issues that have been studied in past research by Berg and Wiebe (1986, 1989) and Johnson (1995) concerning Resource Exchange Theory developed by Foa and Foa (1974). These issues are:

1. the level of satisfaction with resources close in proximity will show a higher level of satisfaction than those resources that are farther apart in proximity.
2. overall satisfaction of particular resources in comparison with other resources.

This study also attempted to expand the research on these issues in an attempt to establish specific domains as described by Deutsch (1975) for the satisfaction of these exchanges in the work place through the employment of the Individualism-Collectivism Scale developed by Triandis (1995) along with the Berg/Wiebe Resource Exchange Scale. In addition, the Short-form Minnesota Satisfaction Questionnaire was administered and appropriate statistical analyses were implemented to test for reliability and validity of all the instruments utilized in the study. Finally, demographic data was gathered so that the employees' overall satisfaction with exchanges could be compared with the data.

Statement of the Problem

Questions involving the types of resources people exchange and the effects of giving and receiving different kinds of resources are important ones for any theory of social exchange to address. Berg, Piner, and Frank (1993) concluded that there is still much to learn about the kinds of resources people exchange or their reactions to giving or receiving particular types of resources. The researchers presented a study that points out areas of commonality and links between several theories of social exchange -- equity theory (Adams. 1965; Walster. Berscheid, and Walster, 1973), distributive justice principles (Deutsch, 1975; Leventhal. 1976a), and the exchange of resources (Foa and Foa,1974). A brief description of Foa and Foa's (1974) Resource Exchange Theory was provided in the preceding paragraphs. The following paragraphs provide a summary of the major elements of equity theory proposed by Adams (1965) and the distributive justice principles suggested by Deutsch (1975) to familiarize the reader with the theories that serve as the basis of this dissertation.

Equity theory according to Adams (1963a, b, 1965), hypothesized that the fairness of a particular exchange will depend on the extent to which individuals perceive that their rewards or outcomes (e.g. salaries, and promotion) are allocated in proportion to each individual's inputs (e.g. status, effort, and productivity). According to equity theory, some type of exchange will occur when two people enter into a relationship. This exchange could be of a tangible nature such as money for goods or services or less tangible as an expressed feeling of mutual affection. Relationships exist in a variety of situations such as employee/employer, student/teacher, husband/wife, parent/child or even between enemies (Adams, 1965). The theory argues for the proportional allocation of organizational rewards without regard for institutional, situational, or individual contingencies. There always exists within the relationship the possibility that one or both of the parties will feel the exchange is "inequitable." That is, one party will receive more than his/her "fair share" from the relationship. Each partner contributes something to the relationship and each expects something in return (Miller & Wong, 1986; Ueleke, Miller, Giesen, & Miles, 1983).

Equity is defined by Adams (1965) as a situation where the ratio of outcome to input is constant for various individuals or groups; in this formula the term "outcome" is presumably used to indicate the difference between positive and negative outcomes. The theory is concerned with the reactions of individuals to the ways in which valued outcomes or rewards are distributed in social systems.

Huseman, Hatfield, and Miles (1985) described a two-step process consistent with that defined by Adams (1965) for individuals to utilize in their perception of their relationships in a variety of settings. First, they compare their inputs to the relationship against the outcomes received. Second, this perception of inputs to outcomes is made against the perceived input/outcome ratio of others. Adams (1965) concluded that inequity exists for a person whenever he/she perceives that the ratio of his/her outcomes to inputs and the ratio of another person's outcomes to inputs are unequal. This may happen either when an individual and another person are in a direct exchange relationship or when both are in an exchange relationship with a third party and the individual compares himself/herself to the other person (Adams, 1965).

Researchers argued that equity theory is insufficient in the justice of distribution of resources within groups (Deutsch, 1975; Lamm, Kayser, and Schanz, 1983; Lerner, 1977; Leventhal, 1976b; Mikula, 1980; Sampson, 1975). Justice theorists and researchers (Deutsch, 1975, 1985; Greenberg and Cohen, 1982; Leventhal, 1976a, b, 1980; Reis, 1986a, b; Sampson, 1986) have agreed that an individual will employ different rules of exchange for exchanging or distributing resources within groups (Greenberg and Cohen, 1982; Kabanoff, 1991; Lerner, 1975, 1977). These rules are equity, equality, and need (Deutsch, 1975).

Lansberg (1984) presented three distributive justice norms proposed by Deutsch (1975) which affect perceptions of fairness. These norms include:

1. The equity norm which entitles the individual with the highest inputs to the largest proportion of the rewards being distributed.
2. The equality norm, which entitles group members to an equal share of the rewards being allocated irrespective of their input; and,
3. The need norm, which entitles those who are most needy to a larger share of the rewards being distributed.

The equity norm encourages individuals to allocate resources in proportion to their contributions. Deutsch (1975) concluded that it occurs primarily in economically oriented situations where maximizing economic productivity is a primary goal and will be perceived as being most relevant in the context of business and economic relations. The equality norm dictates that profits or losses be distributed equally among members regardless of their objective contributions. It tends to be preferred under conditions of cooperative social harmony or friendship, where fostering or maintenance of enjoyable social relations is emphasized (Deutsch, 1975). The need norm of justice provides for benefits to be distributed to satisfy recipients' legitimate needs, regardless of their relative contributions. It will be prevalent in situations where people are mutually interested in fostering personal welfare and development (Deutsch, 1975).

Leung and Park (1986) concluded that some evidence has been obtained to support Deutsch's (1975) hypotheses. Researchers have applied distributive justice to major areas of human interaction such as intimate relations (Cate, Lloyd and Long, 1988), organizations (Griffith and Sell, 1988; Hafer, 1993), culture (Fiske, 1992) and others. Miller (1992) concluded that it will be difficult in practice to separate the alternatives of equality and need where people have warm relations with one another and feel a sense of solidarity with their group. According to Miller (1992), it is likely that individuals will also feel committed to advancing another person's welfare. Thus, the author concluded that the two goals will often go hand in hand.

Some researchers have indicated that it would be appropriate to relate Deutsch's distributive justice norms to Foa and Foa's (1974) Resource Exchange Theory. Berg, Piner, and Frank (1993) proposed that Foa and Foa's (1974) Resource Exchange Theory should be extended to incorporate the dimensions of need and equality similar to those suggested by Deutsch (1975). The equality rule was found to be preferred when a person focused on the group he or she was in and when cohesiveness or cooperation were major concerns. Lin, Insko, and Rusbult (1991) discussed the development of a Chinese model of resource distribution and exchange (Hwang, 1987) based on the work of Foa and Foa's (1974) Resource Exchange Theory and Deutsch's (1975) model of justice rules. The study found similarities between the three models of social exchange defined by Deutsch (1975), Foa and Foa (1974) and Hwang (1975). This dissertation attempted to define specific domains as described by Deutsch(1975) for the satisfaction of the exchanges of resources in the work place.

Central Focus and Presentation Plan

This dissertation had the development of the exchange of resources in the work place as its central focus. The major objective was to examine the exchange of resources in the work place and the satisfaction with the exchanges. Hypotheses were developed and tested on a group of subjects in a work setting. Chapter II reviews literature relevant to the purpose of the dissertation. Chapter III presents the formal hypotheses and the underlying rationale for each. Chapter IV provides details on the subjects, the measures employed, and the analytical techniques for reliability and validity, the demographics, and the hypotheses that were employed. Chapter V details the results of the statistical analysis for the reliability and validity, the demographics, and the hypotheses. Chapter VI provides a summary and a discussion of the results, conclusions, limitations, and suggestions for future research.

CHAPTER II

LITERATURE REVIEW

Introduction

This review of the literature is organized into five major sections. Four sections provide a review of the relevant literature for the theories of social exchange that serve as a basis of this dissertation and one that reviews the related literature for a measure used to classify the subjects participating in the study. The review of the literature for each of the theories cover an introduction to each theory and the development, components, application/empirical support and the limitations of the theory as identified in the relevant literature. The first and second sections review the literature on the theories of Social Exchange Theory and equity theory (Adams, 1965), respectively. The third section reviews the literature on the distributive justice principles described by Deutsch, 1975, while the fourth section reviews the literature on Foa and Foa's Resource Exchange Theory. Finally, the fourth section reviews the literature on the individualism-collectivism constructs developed by Triandis and his associates (Triandis, 1995).

Social Exchange Theory

Psychologists and sociologists have assumed for years that human behavior may be understood through examining the resources and benefits people give to and receive from others and that rules may govern such exchange (Berg and Wiebe, 1986). Man is a social creature, devoting a great deal of time and passion to his dealings with his fellow man, according to Foa and Foa (1974). Behavior displayed in these encounters may vary from particular transactions involving money, goods, services, and information, to subtler exchanges of words and gestures through which affection and even appreciation may be conveyed. Since individuals depend on one another for these resources which are necessary for their well being, they seek social situations in which to exchange them through interpersonal behavior.

Many others have attempted to explain interpersonal interactions as an exchange of resources or social exchange (Blau, 1964; Homans, 1961; Kelly and Thibaut, 1978; Thibaut and Kelly, 1959). According to Thibaut and Kelley (1959) and Cate (1981), social exchange is any relationship in which the individuals involved strive to maximize their "rewards" while concurrently minimizing their "costs." If one is more profitable and rewarding or less costly than the other, individuals will choose one activity or situation instead of another.

The essential elements of Social Exchange Theory described by Burns (1973) have been summarized by Cate (1981). According to Burns, social behavior can be explained in terms of rewards, where rewards are goods and services, tangible or intangible, that satisfy a person's needs or goals. Individuals attempt to maximize rewards and minimize losses or punishments. Social interaction results from the fact that others control valuables and necessities and can therefore reward a person. In order to induce another to reward him or her, a person has to provide rewards to the other person in return. Social interaction is thus viewed as an exchange of mutually rewarding activities in which the receipt of a needed valuable (goods and services) is contingent on the supply of a favor in return (Burns, 1973).

Interpersonal interaction is described as the exchange of resources, thereby mandating the definition of a "resource". According to Foa and Foa (1974, 1976), resources are anything that can be transmitted from one person to another. Resources are obtained through social exchanges, and the availability or non-availability influences one's well-being, happiness, and satisfaction with interpersonal relations. Many problems of mutual adjustment and social adequacy may be conceptualized in terms of possession and need for resources. To assess the functionality of a particular social institution of society as a whole as well as that of an individual, it is necessary to study the extent to which needs for resources exist, and to which extent specific resources are possessed and used in social contexts (Stangl,1989; Brinberg and Castell, 1982).

An excellent explanation of individualistic exchange has been provided by Homans' Theory of Social Exchange (Homans, 1961). This theory takes into account reciprocal rewards, as well as costs. When the ratio of profit to investment is the same for each participant, justice occurs. Profit, in turn, is defined as the difference between reward and cost. Homans' conclusion that individuals value more what is scarce than what they have in abundance offers an interesting suggestion that a person who cannot repay in kind might reestablish justice by giving status to others by expressing gratitude, esteem, or indebtedness. His research differentiates among various resources with the consequent theory that when the appropriate resource is not available, another can be substituted for it. Homans proposed that exchange follows some maximizing model. Acts of affection and acts imparting status are resources for exchange as well as tangible objects; and evaluation follows the principle of distributive justice where the distribution of receipts is judged in reference to others. Homans' theory also implies that the motivation for behavior is based on the expectation of gain through exchange (Miller, 1980).

A proposal presented by Makoba (1993) synthesized the individualistic and collectivistic orientations of Social Exchange Theory into an interactional exchange model of behavior that takes into account the full range of individual and group motives, values, and interests. This interactional approach considers both long-term and short-term individual and group transacting and provides alternative ways to explain social exchange behavior.

Social Exchange Theory and the literature on stressful life events were incorporated into a life-course approach to women's marital duration (Esterberg, Moen, and Dempster-McCain, 1994). The study consisted of factors affecting the duration of marriage were studied in a sample of 313 women. The effects of uncertainty on patterns of exchange and the role of reputation in the formation of stable exchange relations were examined by Kollock (1994). Some of the consequences of different patterns of exchange (e.g., how different exchange conditions lead to different levels of trust among trading partners) were studied in eighty undergraduates.

In a study of social behavior, a basic concept is the fact that in every interaction an exchange of a certain kinds takes place: something is offered or denied (Wiggins, 1979; Adamopoulos, 1984). Berg and McQuinn (1986) in a longitudinal study of dating couples concluded that resource exchange is a factor that is central to all social exchange theories concerning the resources that people give and receive from one another.

One definition of exchange is the mutual giving and receiving of both material and nonmaterial things (Rettig, 1980). The transfers of services, goods, money, rights or benefits are reciprocated by a transfer of something similar or different in return (Gould and Kolb, 1965). Miller (1980) stated conclusively that an exchange model presumes two interacting parties, each with some object or resource that has value to the other party.

When interpersonal behavior is defined in terms of its meaning, it becomes almost synonymous with resource exchange (Foa and Foa, 1980). Interpersonal encounters often involve an exchange of resources and, conversely, resources are obtained mostly through interpersonal encounters. Berkowitz (1962) and Hollander (1967) proposed that social interaction or interpersonal behaviors are determined by a ratio of reward to cost or outcome to investment. Perhaps the most basic questions involving exchange are concerned with what it is that people exchange with each other and with the effects of exchanging different kinds of resources (Berg and Wiebe, 1986).

Views of Social Exchange

Resource exchange is derived from the work of the economists who have long been concerned with the exchange of particular resources, mainly, money, goods, and services. Several attempts have been made to broaden the notion of exchange to cover and interpret all social behavior within a unified framework (Blau, 1964; Homans, 1961; Thibaut and Kelley, 1959; Longabaugh, 1963). These studies have examined the practicality of social behavior in terms of exchange. Others have addressed the need for classifying the resources involved (i.e., what is exchanged) and the behaviors by which these resources are dealt with (i.e., the modes of exchange) (Eldred, Bell, Sherman, and Longabaugh, 1964; Longabaugh, 1963, 1966; Longabaugh, Eldred, Bell, and Sherman, 1966; Cartwright and Zander, 1968).

Several authors have reviewed the contrast of economic and social exchange behaviors and characteristics (Bivens, 1976; Boulding, 1973; Diesing, 1962; Foa and Foa, 1974; Kuhn, 1975; Paolucci, Hall, and Axinn, 1977). Other social scientists have attempted to extend the economic model to incorporate all interpersonal transactions, including expressions of esteem and respect, friendship and love, although economists are reluctant to include information and services in their theoretical notions. On many occasions, goods, services, and information are indeed exchanged with expressions of gratitude, admiration, or affection, rather than with money (Foa and Foa, 1980).

Exchanges of money, goods, and services have been fundamental to economic thought, and the exchange perspective was not new to social science when Barnard (1938) wrote about interpersonal exchanges. However, Barnard extended the exchange perspective to include motivation and social organization (Griesinger 1990), foreseeing the concerns of motivational researchers when he explained that ego satisfactions and social rewards often are as important as material rewards when organizations try to secure more positive contributions to organizational productivity (Barney and Ouchi, 1986; Williamson, 1975). The exchange perspective has become increasingly pervasive over time throughout the social sciences -- in psychology (Gergen, Greenberg, and Willis, 1980; Kelley and Thibaut, 1978), sociology (Blau, 1964; Emerson, 1976; Homans, 1961), organization theory (Barney and Ouchi, 1986; Pfeffer and Salancik, 1978; Williamson and Ouchi, 1981), political science (Axelrod, 1984), communication (Kramer, 1993), and anthropology (Levi-Strauss, 1969), as well as in the functional fields of management, such as marketing (Bagozzi, 1975; Brinberg and Wood, 1983; Kotler, 1972) and human resources management (Adams, 1965; Mowday, 1987; Williamson, 1975, 1979, 1981, 1986; Williamson and Ouchi, 1981).

Cate, Lloyd, Henton, and Anderson (1982) and Lloyd, Cate, and Henton (1982) attempted to relate exchanges of different types of resources to relationship satisfaction. These authors also reported that the measures of resource exchange were superior to other measures of either the equity or equality of the relationship in predicting satisfaction. They also divided their sample into those who were casually involved and those intimately involved. For the casually involved group, receipt of status was predictive of relationship satisfaction, whereas for those who were intimately involved, the amount of information and love subjects received was significantly predictive of satisfaction (Lloyd, Cate, and Henton, 1982).

The exchange of money, goods, and services has been traditionally within the scope of the economist (Foa and Foa, 1972). Status, love, and information have been the concern of other social scientists. This belief has created problems in analyzing situations where economic and non-economic resources are involved. Combining both kinds of resources into the same theoretical framework may throw light on situations such as when a person prefers a job with a lot of prestige and less money to one with a higher salary but less prestige (Foa and Foa, 1972). Buunk and Hoorens (1992) analyzed social support and stress, finding that social support sometimes has negative effects, the occurrence of stress itself can sometimes decrease the availability of support resources, and people believe that they give more support than they receive and that there is more support available for them than for others.

Social psychologists have followed the lead of economists to attempt to apply the economic model to non-economic exchanges, using the same rules for all types of transactions in predicting and controlling behavior in the marketplace (Kramer, 1993). Foa and Foa (1976) suggested the assumption that every transaction, both economic and emotional, follows the same rules causing disinterest in the problems of specifying and classifying exactly what is exchanged. An individual can usually distinguish between economic resources such as money, goods or labor and interpersonal resources such as love or status, according to Buss (1983). Berg and Wiebe (1986) claimed that few interactions involve the exchange of only economic or only interpersonal resources. In addition, many of the resources people exchange involved both economic and interpersonal benefits.

The findings of Thibaut and Kelly (1959) state that people were motivated to act in ways that would maximize their rewards and minimize their costs. Since then many alternative rules to the simple maximization of profits have been proposed (Reis, 1986a) and principles of exchange have been applied in the study of cooperation and competition (McClintock, Messick, Khlman, and Campus, 1973; Pruitt and Kimmel, 1977), initial attraction (e.g. Clark and Mills, 1979; Walster, Berscheid, and Walster, 1973), friendship (e.g. Berg, 1984; Tornblom and Fredholm, 1984; Tornblom, Fredholm, and Jonsson, 1987), romantic relationships (e.g. Berg and McQuinn, 1986; Hatfield, Traupmann, Sprecher, Utne, and Hay, 1985), the desire for justice (e.g. Greenberg and Cohen, 1982), prisoner dilemma research (Apfleman, 1974), and interpersonal bargaining (Komorita, 1974; Komorita and Chertkoff, 1973). The exchange theories used in these areas of research are generally confined to exchanges of the same type of resource. However, interpersonal interactions also involve the exchange of different types of resources (Brinberg and Castell, 1982).

The notion of "justice" is common to many treatments of interpersonal exchange, and the acknowledged importance of perceived injustice is a motivational force in interpersonal exchange relations (Adams, 1965; Anderson, Berger, Zelditch, and Cohen, 1969; Blau, 1964; Homans, 1961). The findings and conclusions of many empirical studies of injustice or inequity have supported a balance or reciprocity (Gouldner, 1960) principle both when an individual has been a beneficiary or a victim of injustice (e.g., Blumstein and Weinstein, 1969; Pepitone, 1971; Walster, Walster, Abrahams, and Brown, 1966). Hypotheses derived from this principle have been explored in these and many other studies (e.g., Brown, 1968; Farley and Tedeschi, 1971; Leventhal and Anderson, 1970; Leventhal and Bergman, 1969; Leventhal and Michaels, 1969; Radinsky, 1969; Weinstein, DeVaughan, and Wiley, 1969).

Equity Theory

A theory of equity was developed by Adams (1963a, b, 1965) based on Festinger's (1954, 1959) theory of cognitive dissonance (Goethals, 1986). According to equity theory, some type of exchange will occur when two people enter into a relationship. This exchange could be of a tangible nature, such as money for goods or services, or less tangible as an expressed feeling of mutual affection. Exchange relationships exist in a variety of situations such as employee/employer, student/teacher, husband/wife, parent/child or even between enemies. There always exists within the relationship the possibility that one or both of the parties will feel the exchange is "inequitable." That is, one party will receive more than his/her "fair share" from the relationship in return. Each partner contributes something to the relationship, and each expects something in return (Miller and Wong, 1986; Ueleke, Miller, Giesen, and Miles, 1983).

The theory suggested by Adams (1965) appears rather close to the one proposed by Homans (1961, 1974). The terminology is different: instead of distributive justice, the term "equity" is used; "input" takes the place of investment, "positive outcome" replaces reward, and "negative outcome" is similar to cost. Equity is defined by Adams as a situation where the ratio of outcome to input is constant for various individuals or groups; in this formula the term "outcome" is used to indicate the difference between positive and negative outcomes, thus corresponding to Homans' "profit."

Equity theory is also concerned with the reactions of individuals to the ways valued outcomes or rewards are distributed in social systems. Cook (1975) reviewed several elements contained in the theory. Rewards or outcomes are allocated on the basis of the possession of particular social characteristics (Berger, Zelditch, Anderson, and Cohen, 1972), investments (Homans, 1961; 1974) or inputs to exchanges (Adams, 1965). Equity includes a justice rule (Adams, 1965; Homans, 1961, 1974) or referential structure (Berger, Zelditch, Anderson, and Cohen, 1972) that defines what is just or equitable. A comparison process based upon the justice rule or referential structure determines the rewards individuals can legitimately expect to receive (Berger, Zelditch, Anderson, and Cohen, 1972; Homans, 1961, 1974) and violations of legitimate expectations result in psychological reactions such as anger, dissatisfaction, guilt and/or behavioral reactions that restore equity.

Equity theory suggests that individuals perceive their relationships in a variety of settings by employing a two-step process (Huseman, Hatfield, and Miles, 1985). First, they compare their inputs to the relationship against the outcomes received. Second, this perception of inputs to outcomes is made against the perceived input/outcome ratio of others (Adams, 1963a; 1965). Inputs include education, intelligence, experience, training, skill, seniority, age, sex, ethnic background, social status, the effort expended on the job, personal appearance or attractiveness, health, possession of an automobile, the characteristics of one's spouse, and so on. Inputs are what an individual perceives as his/her contributions to the exchange (Campbell, Dunnette, Lawler, and Weick, 1970). Adams (1963a) defined outcomes as the rewards received by individuals for their services. These outcomes include pay, rewards intrinsic to the job, seniority benefits, fringe benefits, job status, status symbols and so on. Adams (1963a) noted that the perception of individuals of inputs and outcomes is important, not necessarily the actual inputs and outcomes (Andrews, 1967).

The general thrust of equity theory is summarized by Huseman, Hatfield and Miles (1987). The authors concluded that in most settings, individuals seek equitable relationships. When individuals perceive themselves in inequitable relationships, they experience distress (the more inequitable the relationship, the greater the distress). Individuals experiencing distress will, through a variety of approaches, attempt to restore equity in the relationship to reduce the distress (Huseman, Hatfield, and Miles, 1987). This distress, termed "tension" by Adams (1963a), occurs whether individuals perceive the inequity to result from being over-rewarded or under-rewarded. Such distress, according to equity theory, should predict job satisfaction, with equitably rewarded individuals reporting higher satisfaction than either under-rewarded or over-rewarded individuals (Adams, 1965; Huseman, Hatfield, and Miles, 1985; Pritchard, Dunnette, and Jorgenson, 1972).

Inequity exists for individuals whenever they perceive that the ratio of their outcomes to inputs and the ratio of another person's outcomes to inputs are unequal. This may happen either when he/she and another person are in a direct exchange relationship or when both are in an exchange relationship with a third party and the person compares himself/herself to another (Adams, 1965). Adams (1963a) described inequity schematically being experienced when either:

$$\frac{O_p}{I_p} < \frac{O_a}{I_a}$$

or

$$\frac{O_p}{I_p} > \frac{O_a}{I_a}$$

A condition of equity exists when:

$$\frac{O_p}{I_p} = \frac{O_a}{I_a}$$

The O and I denote outcomes and inputs. The a and p are subscripts denoting the person and another person. The outcomes and inputs in each of the ratios are conceived as being the sum of such outcomes and inputs that are perceived to be relevant to a particular exchange. Each sum is conceived of as a weighted sum on the assumption that individuals probably do not weigh elemental outcomes or inputs equally (Adams, 1963a, b, 1965; Adams and Jacobsen, 1964; Adams and Rosenbaum, 1962).

Restoration of Equity

Adam's research placed emphasis on the inequity perceived by individuals and groups. His studies dealt with the reduction of inequity and classified them according to the method by which inequity was reduced. In several investigations, it was generally found that when subjects had been over-rewarded or under-rewarded, their behavior was directed toward reestablishment of equity (Blumstein and Weinstein, 1969; Greenberg and Ornstein, 1983; Jaques, 1961a; Leventhal, Allen, and Kemelgor, 1969; Pepitone, 1971; Walster, Walster, Abrahams and Brown, 1966). Adams (1963a) predicted that the tendency to restore equity would be stronger for the individuals who were under-rewarded, than for those who received above their fair share (Leventhal and Anderson, 1970; Leventhal and Lane, 1970).

Derived from social comparison theory and dissonance theory (Brehm and Cohen, 1962; Festinger, 1954, 1957; Gouldner, 1960), Adams (1963a) presented several methods of reducing inequity available to an individual:

1. A person may increase his/her inputs if they are low relative to another person's inputs and to his/her own outcomes.

2. A person may decrease his/her inputs if they are high relative to the other person's inputs and to his/her own outcomes.
3. A person may increase his/her outcomes if they are low relative to the other person's outcomes and to his/her own inputs.
4. A person may decrease his/her outcomes if they are high relative to the other person's outcomes and to his/her own inputs.
5. A person may "leave the field" when he/she experiences inequity of any type.
6. A person may psychologically distort his/her inputs and outcomes, increasing or decreasing them as required.
7. A person may increase, decrease, or distort the inputs and outcomes of others, or force the others to leave the field.
8. A person may change his/her referent other when inequity exists.

Altering Inputs

Individuals may vary their inputs, either increasing them or decreasing them, depending on whether the inequity is advantageous or disadvantageous. They will minimize increasing inputs that require a large amount of effort and are costly to change (Teichman, 1971). Several experiments have been conducted specifically to test this hypothesis. Adams and Jacobson (1964) tested and found support for the hypothesis that if individuals perceive that they are overpaid in an exchange with their employer because their inputs are inadequate, they will experience inequity and attempt to reduce it by increasing relevant inputs. Anowood (1961) paid his subjects in advance for three hours of work and found that those who perceived their pay as too great tended to work more than the three hours required. In similar experiments (Adams, 1963a; Adams and Rosenbaum, 1962), subjects were paid by the hour. The results of these studies concluded that in the high inequity conditions, subjects would alter their productivity inputs.

Adams (1963a) studied the effect of over and underpayment on individuals' productivity (inputs) and found that those subjects who were led to feel that they were overpaid tried to increase their inputs. In another experiment (Adams, 1965) the same procedure was followed, but the subjects were paid on an hourly basis instead of on a performance basis. Again, subjects who were overpaid were found to increase their inputs to reduce inequity.

Goodman and Friedman (1971) presented support for an individual altering his/her inputs in hourly and piece rate situations. Overpaid-hourly subjects raised their inputs by producing more as a means of reducing inequity (Adams and Rosenbaum, 1962; Anowood, 1961; Goodman and Friedman, 1969; Kalt, 1969; Pritchard, Dunnette, and Jorgenson, 1972). Overpaid-piece-rate subjects produced higher quality and lower quantity than equitably paid subjects, thus increasing their inputs as a means of achieving equity (Adams, 1963b; Adams and Jacobson, 1964; Adams and Rosenbaum, 1962; Goodman and Friedman, 1969). Underpaid-hourly subjects decreased their inputs to achieve an input-outcome balance (Evan and Simmons, 1969; Pritchard, Dunnette, and Jorgenson, 1972). Underpaid-piece-rate subjects produced a large number of low quality outputs because the production of low quality outputs permits increasing outcomes without substantially increasing inputs (Andrews, 1967; Lawler and O'Gara, 1967)

Altering Outcomes

An individual may vary his/her outcomes, either decreasing or increasing them, depending on whether the inequity is advantageous or disadvantageous to him/her. In an experiment to test this hypothesis, Thibaut (1950) assigned teams of five or six boys to either high or low status roles in playing a series of four games. The low-status teams were unfairly treated although they were comparable in their characteristics to the high-status teams because they were forced to adopt an inferior, unpleasant role. Thibaut's report provided evidence that the low-status teams used four means of reducing inequity: lowering the high-status team members' outcomes by fighting with them; lowering their inputs by not playing the games as required; by leaving the field; and by trying to interchange roles with the high-status teams.

Evidence that increasing outcomes will reduce inequity can be found in studies by Homans (1953), Spector (1956), and Stouffer, Suchman, DeVinney, Star, and Williams (1949). In a study of unfair wages among clerical workers, Homans (1953) examined two groups of cash posters and ledger clerks in a utility company working in the same, large room. The results found that the ledger clerks felt inequity because they felt they ought to get a few dollars more per week to show that their jobs were more important. Stouffer, Suchman, DeVinney, Star and Williams (1949) and Spector (1956) conducted field studies of dissatisfaction with status and promotions and concluded that expectations of promotion and morale were interpreted as cases of inequity in which persons tended to increase their outcomes.

Several studies indicate that when a person's inputs are equal to those of others. he/she reacts to uneven payment by attempting to reach an equal division of money (Leventhal. Allen and Kemelgor. 1969; Leventhal and Bergman. 1969: Leventhal. Weiss and Long, 1969). In other studies it was found that when subjects perceived that their partners' contributions in a certain work situation were unequal (i.e.. unequal inputs). they tended to allocate rewards (outcomes) according to the perceived inputs of the participants (Leventhal and Anderson, 1970; Leventhal and Lane. 1970: Leventhal and Michaels, 1969; Leventhal. Reilly. and Lehrer. 1964).

Andrews (1967) developed a study using ninety-six students who worked at one of three piece rates: equitable wage (twenty cents). underpay (fifteen cents). or overpay (thirty cents). Half of these students worked on an interesting task. while the other half worked on an dull task. As predicted. underpaid subjects maintained equity by increasing work quantity at the expense of work quality, whereas overpaid subjects maintained equity by reducing work quantity and increasing work quality.

Distorting Inputs and Outcomes

Individuals may cognitively distort their inputs and outcomes. They will be more resistant to changing cognitions about their own outcomes and inputs than to changing their cognitions about another person's outcomes and inputs (Teichman. 1971). An experiment by Weick (1964) offered support for this hypothesis. The study suggested that subjects, some of whose outcomes are unjustly low, may increase their net total outcomes by distorting their evaluation of the task. Weick found that subjects working for an inconsiderate experimenter, who had lured them to work for no credit, evaluated their task more highly than subjects who worked for normal course credits. Subjects who were short-changed by the experimenter distorted their outcomes by coming to believe that the experiment was relatively quite interesting and important.

Leaving the Field

Quitting a job, obtaining a transfer, and absenteeism are common forms of leaving the field in an employment situation. Adams (1965) found that leaving the field will be resorted to only when the magnitude of inequity experienced is high and other means of reducing it are unavailable. He also found that partial withdrawal, such as absenteeism, will occur more frequently and under conditions of lower inequity (Adams, 1965). Some support for this hypothesis is offered in a study by Thibaut (1950) in which low-status team members withdrew from the situation as their perceptions of inequity increased. Patchen (1959) observed that men who said their pay should be higher had more absences than men who said the pay for their jobs was fair.

Carrell and Dittrich (1978) and Schmitt and Marwell (1972) examined the possibility that experimental subjects will withdraw from an inequitable situation to one which is less profitable but more equitable. Subjects who were paired on the basis of no acquaintance could work individually or cooperatively on tasks where rewards for cooperation were greater but inequitable. With withdrawal as the only alternative to inequity, a significant proportion of subjects chose to withdraw from the inequitable situation.

Acting on Another

Individuals may attempt to alter or cognitively distort other peoples' inputs and outcomes, or try to force them to leave the field (Pilisuk, 1962). Adams (1963a) concluded that forcing someone to leave the field would be difficult and would be accompanied by anxiety about potential consequences or discomfort of having done something socially unpleasant. Adams (1963a) offered common examples of this, such as firing an individual in an employer-employee exchange, some divorces and separations, and the practice of creating inequity by withholding expected outcomes such as salary increases and promotions to the point where an individual leaves the field "voluntarily".

Research to support this hypothesis is almost non-existent (Bramel, 1962; Brehm and Cohen, 1962; Steiner and Peters, 1958). Blumstein and Weinstein (1969) created situations of justice and injustice and found that when loss was involved, subjects attempted to restore justice by expressing disrespect for the other or lowering the rewards of the other person. On the other hand, when they benefited from the exchange, esteem was expressed for the other person and an attempt to raise the other person's rewards was made.

Changing the Object of Comparison

Individuals may change the persons with whom they compare themselves when they experience inequity. This mode of inequity reduction is limited to when a person and another are in a common exchange relationship with a third party (Teichman, 1971). Evidence to support this hypothesis can be found in a study of the choice of wage comparisons by Patchen (1961) in which oil refinery workers were asked to name someone whose yearly earnings were different from theirs. He then asked them questions about the resulting wage comparisons and about their satisfaction with them. Further support is offered by the results of a survey of 721 employees in a light manufacturing firm in which Ronen (1986) used to investigate the role of reference groups inside and outside the organization within the framework of equity theory. Attitude toward pay was used as the basis for comparison. The results indicated that employees tended to compare themselves with external reference groups rather than internal reference groups in matters of pay/compensation.

Choice of Modes of Inequity Reduction

Although reference has been made to conditions that may affect the use of one or another method of reducing inequity, there is need for a general statement of conditions that will govern the adoption of one method over another. Given the existence of inequity, any of the means of reduction described are potentially available to an individual (Steiner and Rogers, 1963). Individuals may alter or attempt to alter any of the four terms in the inequality formula or change their cognitions about any of them. An individual also may leave the field or change the person with whom he/she is making comparison, but it is improbable that each of the methods is equally available to him/her psychologically (Steiner, 1960; Steiner and Johnson, 1964; Steiner and Peters, 1958; Steiner and Rogers, 1963).

Revision of Equity Theory

Walster, Berscheid, and Walster (1973) attempted to revise equity theory by stating four basic propositions and the derivations, which can be drawn from them. The derivations came from two related ideas. The first idea is that the distress induced by an inequity can be reduced through either the restoration of actual equity or through the restoration of psychological equity. For example, an individual can change the reality which is distressing or can change his/her perceptions of the reality so that it is no longer viewed as having the characteristics which evoke distress. The second idea is that the mode of restoring equity will be determined by economic considerations (Walster, Berscheid, and Walster, 1973).

Walster, Berscheid, and Walster (1973) employed the terms "exploiter" and "harmdoer" for the person who is relatively advantaged by an inequity; they employ the terms "exploited" and "victim" for those who are disadvantaged. The propositions concerning equity and its application to social relationships developed by Walster, Berscheid, and Walster (1973) are as follows:

1. Individuals will try to maximize their outcomes (where outcomes equal rewards minus costs).
2. Groups can maximize collective reward by evolving accepted systems for equitably apportioning rewards and costs among members. Groups will generally reward members who treat others equitably and generally punish (increase costs for) members who treat others inequitably.

3. When individuals find themselves participating in inequitable relationships, they become distressed.
4. Individuals who discover they are in an inequitable relationship attempt to eliminate their distress by restoring equity.

Walster, Berscheid, and Walster (1973) claimed that the formulas presented by Adams (1963a) are adequate only as long as all participants have positive inputs. They further expressed concern that the formula is not suitable in social exchanges where inputs may be negative as well as positive, for example inputs such as incompetence and disloyalty. Walster, Berscheid, and Walster (1973) proposed the following formula to compensate for positive or negative inputs:

$$\frac{O_a - I_a}{I_a} = \frac{O_b - I_b}{I_b}$$

where O designates the perception of persons a's and b's outcomes; I designates the perception of a's and b's inputs (disregarding sign). A participant's relative outcomes will be zero if the outcomes equal the inputs. His/her relative outcomes will be positive if O > I, and negative if O < I. Thus the sign and the magnitude of this measure indicate how profitable the relationship has been to each of the participants.

Applications of Equity Theory

Smith and Schroeder (1984) and Boldero and Rosenthal (1983) reported that a large body of research supports the basic assumptions of equity theory (Adams and Freedman, 1976; Berkowitz and Walster, 1976; Walster, Walster, and Berscheid, 1978). Numerous studies have focused on and supported the primary proposition that individuals review the inputs and outcomes of themselves and others, and in situations of inequity, experience greater distress than individuals in equitable situations (Austin and Walster, 1974; Boldero and Rosenthal, 1983; Messe, Dawson, and Lane, 1973; Radinsky, 1969; Wicker and Bushiveiler, 1970).

Researchers have applied equity theory to major areas of human interaction such as business relationships, exploitative relationships, helping relationships, and intimate relationships (Walster, Berscheid, and Walster, 1970; Walster, Berscheid, and Walster, 1973; Winn, Crawford, and Fischer, 1991). The vast majority of equity research has been conducted in industrial settings (Adams, 1965; Lawler, 1968; Opsahl and Dunnette, 1966; Pritchard, 1969; Weick and Nesset, 1968). The work by Walster, Berscheid, and Walster (1973) has led to a stream of research based on Adams's (1963a, 1963b, 1965) equity theory being applied to other exchange relationships (Berscheid, Boye, and Walster, 1968; Cohen, 1974; Hatfield, Greenberger, Traupmann, and Lambert, 1982; Holt, 1982; Schafer, Keith, and Lorenz, 1984; Walster and Walster, 1975; Walster, Walster, and Traupmann, 1978).

Business Relationships

Equity research in organizational settings has focused on modification of inputs as a response to inequity (Adams, 1963a; Adams and Jacobson, 1964; Adams and Rosenbaum, 1962; Andrews and Valenzi, 1970; Friedman and Goodman, 1967; Lawler, 1968; Lawler, Koplin, Young, and Faden, 1968) and outcome distribution and modification (Lane and Messe, 1972; Leventhal and Bergman, 1969; Leventhal, Allen, and Kemelgor, 1969; Leventhal and Lane, 1970; Leventhal, Weiss, and Long, 1969). Despite the fact that equity theory proposes that a wide variety of outcomes can affect behavior, most of the research has focused almost exclusively on one type of job outcome -- pay (Adams and Freedman, 1976; Greenberg, 1982).

Theorists (Adams, 1963a: 1965; Homans, 1961: and Patchen, 1961) have proposed three primary points concerning equitable payment for work. First, employees perceive a fair, just, or equitable return for what they contribute to their jobs. Second, employees utilize social comparison to determine what their equitable return should be after comparing their inputs and outcomes with those of their co-workers. Third, employees who perceive themselves as being in an inequitable situation will seek to reduce the inequity.

The purpose of a study involving high school principals by Wedul (1991) was to determine if differences in perceptions of pay satisfactions existed. Adams' equity theory was used as a basis for explaining the findings and in developing conclusions for the study. Carroll (1997) conducted a study to test the relationship between CEO equity and pay. The study used data from a national survey of 764 African-American workers to test predictions from equity theory regarding the distress that results from pay inequity. Based on data from 222 employed individuals in Israel, Dornstein (1988) investigated the characteristics of occupations that serve as a bases of pay-equity evaluations.

Research concerning the issue of equity and compensation continues to evolve (Schmidt, 1995; Seta and Seta, 1992). Sweeney (1990) conducted three experiments on the overpaid/underpaid predictions of equity theory. Three national samples showed a curvilinear relationship between perceptions of equity and pay level satisfaction. The results offered support for Adams (1965) predictions that both the underpaid and the overpaid relative to comparison standards resulted in greater pay dissatisfaction than that found among those who were compensated equitably. Cooper (1991) found support for pay predictions made by Adams' (1965) in a study of 631 grocery clerks. The study concluded that in order to evaluate the fairness of their pay, workers will compare a ratio of their own job outcomes and inputs with a similar ratio of some referent other. Research has demonstrated that performance compensated on an hourly basis often increases in response to overpayment and decreases in response to underpayment (Birbaum, 1983; Campbell and Pritchard, 1976; Greenberg, 1982; Mowday, 1979).

Most of the research has dealt primarily with compensation practices, but researchers continue to investigate a variety of "inputs" and "outputs" that might be present in the organizational setting (Campbell, Dunnette, Lawler, and Weick, 1970). Field studies (Carrel and Dittrich, 1976; Telly, French, and Scott, 1971) have supported the primary equity proposition (Adams, 1963) that turnover may be one method employees utilize to alleviate perceived inequity. In one study (Telly, French, and Scott, 1971) the equity perceptions of manufacturing employees from low-turnover shops were significantly higher than those of high-turnover shops. Perceived equity of employees within a service organization (Carrel and Dittrich, 1976) was found to be a significant predictor of turnover and absenteeism within departments.

Exploiter Relationships

Equity theory has also been applied to predict people's reactions in such diverse interactions as industrial relations, exploiter-victim relations, and charity-recipient relations. One job outcome that has received attention by researchers is the status a worker receives by having certain duties and responsibilities, as reflected by job title (Dandridge, Mitroff, and Joyce, 1980). Pritchard (1969) claimed that the exchange of status lends to confusion in equity theory as it can appear as an input (an added contribution) as well as an outcome (a source of pride). This ambiguity has been empirically tested by Tornow (1971), who found that a feeling of duty or responsibility could not be reliably categorized as either work outcomes or inputs. Greenberg (1988) examined the effect of status and equity in a field study of 198 insurance company employees. The employees were randomly assigned on a temporary basis to the offices of either higher, lower, or equal-status coworkers while their own offices were being refurbished. The resulting pattern supported equity theory. Those workers reassigned to higher status offices raised their performance (response to overpayment) those reassigned to lower status offices lowered their performance (response to underpayment equity).

Helping Relationships

Researchers have utilized equity theory to investigate exchanges in helping relationships (Berkowitz and Daniel, 1964; Goranson and Berkowitz, 1966; Pruitt, 1968). Fujihara and Kijima (1990) investigated correlations between distress and loneliness in equitable and inequitable relationships using equity theory, among sixty-eight elderly people in a retirement home. The more beneficial the relationship between the elderly and their social supporters was perceived to be, the more happy and content they were. A study by Roberto and Scott (1986) observed the exchange patterns between 110 older adults and their friends. Using equity theory as a conceptual base, the amount and type of distress reported in the overall friend relationship and the helping aspect of the friendship were examined in those individuals in equitable versus inequitable relationships. Garvin and Reed (1994) studied how equity issues can be used in small groups when a client is seeking help coping with issues of social functioning from group members. The effects of equity on helping behavior in a non-threatening environment were investigated by Gordon, Miller, Giesen, and Carskadon (1982). The results of the study supported equity theory.

Intimate Relationships

The work of Walster, Berscheid, and Walster (1973) and Walster and Walster (1975) led to the application of equity theory to the study of intimate, close, and marital relationships. Empirical support for equity theory has been found in the study of intimate relationships (Davidson, Balswick, and Halverson, 1983; De-Dreu, Lualhati, McCusker, 1994). Walster, Walster, and Traupman (1978) investigated whether equity theory could provide insight into dating couples' intimate romantic and sexual relationships. In a study of 227 men and 310 women who were casual or steady daters, it was hypothesized that if people feel they are getting less from a relationship than they deserve, they feel entitled to control the relationship sexually. Couples were found to be most intimate in the equity relationship. The Traupmann-Utne-Walster Equity/Inequity Scales was used in the study to measure the level of equity that intimate couples perceive in their relationships (Hatfield, Walster, and Traupmann, 1978; Traupmann, 1978; Traupmann and Hatfield, 1983; Traupmann, Peterson, Utne, and Hatfield, 1981).

Lloyd, Cate, and Henton, (1982) studied the degree to which equity and rewards predicted satisfaction in 325 college students divided into casual or intimate relationship groups according to their current dating status. Results indicated that status and equity were significant predictors of satisfaction for the casually involved group, while information, equity, and love were significant predictors of satisfaction for the intimate group. Clark and Chrisman (1994) reviewed empirical literature on how people utilize equity theory to allocate goods, service, and other sorts of benefits in their intimate relationships and how those allocations influence satisfaction in stability of those relationships. In a study of 100 couples, Okuda (1994) found support for equity predictions with a questionnaire on the role of reward and cost in social exchange processes, expectations of the relationships/marriage, satisfaction and commitment in close relationships, and the reciprocity of social resources (love, service, information, money, status, and goods) as presented by Foa and Foa (1976). Consistent with equity theory, Brockner, O'Malley, Hite, and Davies (1987) found that participants made greater self-allocations when they performed better rather than worse than their intimate partners. Floyd and Wasner (1994) studied equity in intimate relationships involving college students by having them complete questionnaire measures of commitment, satisfaction, perceptions of alternatives and inequity. Snell and Belk (1985) categorized intimate relationships of university students into equity-inequity groups.

Walster, Traupmann, and Walster (1978) found that equity theory could be a useful framework for understanding the effects of imbalances in intimate contractual relationships such as marriage. Equitable couples seemed to be happier, more satisfied with their relationship, and more confident that it would last than their more mismatched counterparts. Inequitable couples acted to set things right in their marriage by either restoring actual equity to the relationship or psychologically setting their relationship in balance. Many reported that they might leave the field. Results indicated that men and women in inequitable/under-benefited relationships had more extramarital affairs and began their extramarital activities earlier than did men and women in equitable and inequitable/over-benefited relationships. Ueleke, Miller, Giesen, and Miles (1983) investigated the hypothesis that individuals will act to compensate for perceived inequities in a marital relationship. Subjects were presented a description of a marital relationship with equity, inequity, and projected equity conditions. Subjects responded to a series of questions that allowed them an opportunity to compensate for the inequity. Results revealed support for equity, inequity and projected equity. Van Yperen and Buunk (1991, 1994) looked at research on equity in marital relationships and presented results that supported the assumptions from equity theory concerning inputs to and outcomes from a marriage.

Researchers have studied the issues involved in equity in close and casual relationships. Sprecher and Schwartz (1994) tested principles of equity theory in close relationships with primary emphasis on perceived equity in the areas of money, work, and sex. The study was conducted to investigate the perceived equity and commitment among 349 college students in dating relationships and 132 of them in close same-sex relationships. Equity theory served as the base for evaluating reports of contentment, distress, and perceptions of relationship commitment. Students in equitable relationships reported more contentment and commitment. Stalans and Zinser (1986) examined the effects of equity among friends and strangers in forty male and forty female university students. After reading an assigned vignette, subjects were asked to allocate $90 between two strangers or friend co-workers. The questionnaire data revealed that the impartial allocators expected strangers to be less satisfied with their distribution. In this study, impartial allocators tended to compensate strangers to a greater extent for low performance or ability than friends and were more likely to ignore performance and ability differences between strangers than between friends. Sprecher (1986) examined the relationship between perceived inequity and the experience of emotions in close relationships. Hypotheses from equity theory were tested in relation to emotions in equitable and inequitable situations. Lerner and Mikula (1994) explored the subject of entitlement and equity in close relationships. Questions concerning the role of considerations of entitlement and assessment of justice in close relationships were examined.

Other Applications

Equity theory research has been applied in numerous other situations such as supervisor-subordinate relationships (Deluga, 1994), burnout of general practitioners (Van-Dierendonck, Schaufeli, and Sixma, 1994), prenatal period of first time parents (Mintzer, 1985), family therapy (Caddick, 1988), tax evasion (Kaplan, Reckers, and Reynolds, 1986), opinions toward sentencing of criminals (Izzett, 1981), salaries in major league baseball (Bretz and Thomas, 1992; Duchon and Jago, 1981; Lord and Hohenfeld, 1979; Hauenstein and Lord, 1989), students commitment to college (Neumann and Neumann, 1984), classroom instruction (Rouse, 1982; Rodabaugh, 1993), punishment of students for cheating (Savitsky and Babl, 1976), reactions to shoplifting (Fedler and

Pryor, 1984), buyer-seller relationships (Huppertz, Arenson, and Evans, 1978), division of work (Lennon and Rosenfield, 1994; Yogev and Brett, 1985), triads (Messe, Vallacher, and Phillips, 1975), African-American workers (Perry, 1993), and information technology (Serva, 1994).

Limitations of Equity Theory

The literature suggests that while compensation and effort are significant outcomes and inputs, dimensions of perceived equity or fairness extend far beyond simple effort/pay relationships and comparisons with a single nearby referent person (Greenberg, 1987b). In a reexamination of equity theory, Donnenwerth and Tornblom (1975) concluded that existing formulations of equity theory only accounted for a small number of possible types of exchange. The various formulations of exchange have a common theme in the idea that the amount given or taken by individuals is positively related to the amount which was previously given to or taken from them even though they differ in details and in terminology; however, researchers concluded that there is a need for further study of the equity framework (Lane, Messe, and Phillips, 1971; Leventhal and Lane, 1970; Leventhal and Michaels, 1969; Messe, 1971; Messe, Vallacher, and Phillips, 1975; Thibaut and Kelley, 1959).

A few field studies (Finn and Lee, 1972; Goodman, 1974; Schuster, and Clark, 1970; Telly, French, and Scott, 1971; Zederick and Smith, 1968) have shown limited support of equity theory among employees of existing organizations. The field studies have not utilized the specific comparison person measurement technique found in the laboratory research. Carrell and Dittrich (1978) claimed that a lack of field research may be related to three problems in application of equity theory. First, if respondents are asked to compare certain specified inputs with certain outcomes, a cognitive process is forced on them that may or may not be in the process normally used. Second, exploratory field research (Goodman, 1974) suggested that perceptions individuals build about fairness in the treatment of themselves and other people relate not only to pay and other forms of compensation, but also to the organization's system of allocating these rewards. Finally, in order to avoid confusing subjects, questions are simplified by presenting a limited variable model of equity, for example using only pay as an outcome.

Experimental data (Adams, 1963b; Adams and Jacobsen, 1964; Adams and Rosenbaum, 1962; Anowood, 1961; Brickman, 1975) tended to support the theory, but are limited because many studies utilize only college students: work periods have been very short; workers were isolated from co-workers; and only two work tasks have been used in many studies. Smith and Schroeder (1984) claimed that the majority of the studies investigating some aspect of equity theory, the methodology used has relied upon experimental manipulation to induce a sense of psychological and/or actual equity within the subjects (Adams and Rosenbaum, 1962; Pritchard, Dunnette, and Jorgenson, 1972; Walster, Walster, and Berscheid, 1978). Extensive laboratory experimentation (Gergen and Morse, 1974; Lane, Messe, and Phillips, 1971; Leventhal, Allen, and Kemelgor, 1969; Leventhal, Michaels, and Sanford, 1972; Leventhal, Weiss, and Long, 1969; Rothbart, 1968; Wahba, 1971) has given the equity norm strong support within a laboratory setting. But the fact that laboratory settings usually involve student subjects, specified comparison persons, and consideration of only one or two inputs or outcomes greatly limits the ability to generalize results to members of existing organizations.

Most research on equity theory was applied to work situations, the effects of over- or underpayment upon subjects' productivity, work quality, and feelings about their partners (Cosier and Dalton, 1983; Lawler, 1968). Research on underpaid subjects supported the predictions of equity theory (Adams and Freedman, 1976; Goodman and Friedman, 1971; Homans, 1961; Patchen, 1961; Pritchard, 1969; Summers and DeNisi, 1990). However, research on situations of overpayment conditions has been more controversial. A review of the first overpayment studies (Adams, 1963a; Adams and Rosenbaum, 1962; Andrews and Valenzi, 1979; Clark, 1958; Evans and Molinete, 1970; Goodman, 1974; Goodman and Friedman, 1969; Friedman and Goodman, 1967; Lawler and Porter, 1967; Valenzi and Andrews, 1971; Weiner, 1970) questioned their results. These studies involving overpayment conditions challenged the subjects' work qualifications to create the impression of an overpayment situation in the subjects' minds. Overpayment research (Garland, 1973; Greenberg and Leventhal, 1976) found that adults believe overpayment to be an effective means of improving the performance of others.

Equity theorists have been concerned with quantitative equity to the neglect of its qualitative aspects (Tornblom, Fredholm, and Jonsson, 1987). Romer (1977) and Alessio (1980) discussed the difficulties of allowing for negative inputs in the equity formulas as discussed by Walster and Walster (1975). Romer suggested that the difficulties can be resolved if the range of application of equity formulations is restricted to relationships in which members' outcomes add up to a fixed value.

Equity, or more precisely, inequity, is a pervasive concern of industry, labor, and government. Yet its psychological basis is probably not fully understood. Evidence suggests that equity is not merely a matter of getting "a fair day's pay for a fair day's work," nor is inequity simply a matter of being underpaid. The fairness of an exchange between employee and employer is not usually perceived by the former purely and simply as an economic matter (Adams, 1963a). There is an element of relative justice involved that supervenes economics and underlies perceptions of equity or inequity (Homans, 1961; Jaques, 1956, 1961a, b; Patchen, 1961; Stouffer, Suchman, DeVinney, Star, and Williams, 1949; Zaleznik, Christensen, and Roethlisberger, 1958). Von-Grumbkow and Wilke (1974) applied Adams's equity theory to employee performance and found that indirect exchange situations involved more conditions which obscured the application of equity theory. Some of these conditions were behaviors and goals of the employer. Romer (1979) concluded that equity theory is inappropriate when resources are unlimited and that it may not apply to certain cases involving limited resources. Lloyd, Cate, and Henton (1982) claimed that little or no research had been reported that examines the role of resources and equity considerations as influences on satisfaction with relationships at differing levels of involvement. Their research examined whether there are differences in the way equity and resources act together to predict relationship satisfaction between employees and employers.

Equity theory argues for the proportional allocation of organizational rewards without regard for institutional, situational, or individual contingencies. Lansberg (1984) reported that a number of theorists have questioned this aspect of the equity theory framework (Deutsch, 1975, 1977, 1980; Kabanoff, 1991; Larwood, Kavanagh, and Levine, 1978; Leventhal, 1976a; Sampson, 1975). Studies by Deutsch (1975, 1979, 1985) identified several weaknesses of equity theory. He concluded that equity theory is a quantitative theory in appearance but not in reality. The theory has an unsolved problem of how to quantify such rewards as a good dinner, a mediocre concert, and a kiss. The basic concepts of equity theory -- outcomes and inputs -- are described by Deutsch (1975) as vague. For example, it is hard to know in advance if something will be viewed as an input or an outcome, and the theory does not specify from whose perspective the perceiver is evaluating inputs and outcomes. Deutsch (1975) argued that equity theory ignores the interactional aspects of the exchange relationship and the thoughts of the persons participating in the exchange relationship. Each individual is trying to influence the other's thoughts. According to Deutsch (1985), equity theory assumes that it makes no difference what type of outcome is matched with what type of input. For example, if one contributes a great deal of time and energy to the care of a sick friend, payment in money rather than in affection or esteem is likely to be viewed as a demeaning outcome (Deutsch, 1979).

Several motivation assumptions made by equity theory were identified and challenged by Deutsch (1975, 1979). First, equity theory assumes that man is primarily motivated by extrinsic rewards. Second, the qualitative relationship between the nature of the individual's motives and the nature of the extrinsic rewards can be ignored. Third, an individual's motivation to contribute to a group's outcome will be greater if his/her share of the outcome is proportional to his/her contributions than if all contributors share the outcome equally. Deutsch (1975, 1979) concluded that these assumptions need further examination.

Equity theory also assumes that groups will be more productive if group members are rewarded in proportion to their contributions. Deutsch (1979) claimed that work groups who share their rewards equally may be more productive than work groups whose members are each rewarded in terms of their relative contribution to the group's project. Researchers argued that equity theory is insufficient in the justice of distribution of resources within groups (Deutsch, 1975; Lamm, Kayser, and Schanz, 1983; Lerner, 1977; Leventhal, 1976b; Mikula, 1980; Sampson, 1975).

Distributive Justice

Although past empirical research suggests that equity is the most common rule of Social Exchange Theory used by people in organizations, justice theorists and researchers (Deutsch, 1975, 1985, 1987; Greenberg and Cohen, 1982; Leventhal, 1976a, b, 1980; Reis, 1986a, b; Sampson, 1986) have agreed that there are a variety of principles and values frequently used for social exchange or for distributing resources within groups (Kabanoff, 1991). An individual will also employ different rules of social exchange to interact with people of different types of relationships or different degrees of intimacy (Austin, 1980; Austin and McGinn, 1977; Austin, McGinn, and Susmilch, 1980; Benton, 1971; Bierhoff, Buck, and Klein, 1986; Lerner, 1975, 1977; Deutsch, 1986; Shapiro, 1975), to determine entitlement and fairness (Fine and Wong, 1995; Lansberg, 1989; Lerner and Whitehead, 1980; Mikula and Schwinger, 1978; Schwinger, 1980, 1986; Sampson, 1969, 1975), to manage effectively (Clark and Reis, 1988; Cook and Hegtvedt, 1983, 1986; Lamm, Kayser, Schanz, 1983; Lamm, Kayser, and Schwinger, 1982; Mikula, 1980, 1986; Tyler, 1994; Tyler and Belliveau, 1995), and in different situations (Howard and Tyler, 1986; Foa and Stein, 1980; Greenberg, 1979a, b, 1982, 1983; Hartup, Laursen, Stewart, and Eastenson, 1988; Lamm and Schwinger, 1980; Leung and Park, 1986; Leventhal, Weiss, and Buttride, 1973; Leventhal, Michaels, and Sanford, 1972; Morgan and Sawyer, 1967, 1979; Murphy-Berman, Berman, Singh, Pachauri, and Kumar, 1984; Notz and Starke, 1987; Peterson, 1975; Pfeffer and Langton, 1990; Prentice and Crosby, 1987).

The concept of distributive justice is identified by Deutsch (1975, 1979) as being concerned with the distribution of the conditions and goods which affect an individual's well being. He claimed that the sense of injustice with regard to the distribution of benefits and harms, rewards and costs, or other things which affect the individual's well being may be directed at the following:

1. The values underlying the rules governing the distribution (injustice of values);
2. The rules which are employed to represent the values (injustice of rules);
3. The ways that the rules are implemented (injustice of implementation);
4. The way decisions are made about any of the foregoing (injustice of decision making procedures).

Deutsch (1979) identified values which underlie distributive justice. He viewed justice as consisting in the treatment of people: according to their contributions, as equals, according to their needs, according to their potential value, according to their efforts, according to what others choose to do for them, so that they have equal opportunity to compete without external favoritism or discrimination, according to the supply and demand of the market place, according to the requirements of the common good, according to the principal of reciprocity, and so that none falls below a specified minimum. Deutsch (1979) recognized that these different values may conflict with one another. For example, the most needy may not be the most able, those who work the hardest may not accomplish the most, equal opportunity may not lead to equal regard, and treating everyone as equals may not maximize the common good.

Groups

Deutsch (1979) suggested that there is usually a positive, circular relation between the well being of the individuals in a group (or society) and the well functioning of that group: the more satisfied the individuals are, the better their group functions and vice versa.

Deutsch (1979) described some minimal conditions of individual well being and human dignity which are necessary to sustain continued cooperative participation in a group's activities and vice versa. For example, an individual can survive physically with a certain minimum of food and shelter, but perhaps not psychologically, if he/she is defined socially below the level of livability. An individual can tolerate only a certain degree of inconsistency, rejection, isolation, abuse, or terror from his/her group before he/she no longer will be willing or competent to cooperate; his/her threshold of tolerance for such practices will undoubtedly decrease if he/she sees that others are not treated similarly (Deutsch, 1975; 1979).

Ancok and Chertkoff (1983) described social psychological research that supported Deutsch's (1975) argument that people are more apt to accept decisions and their consequences if they have participated in making them (Leavitt, 1951; Lewin, Lippitt, and White, 1939; and Shaw, 1955). Deutsch's (1975) argument is also supported by two experiments conducted by Folger, Rosenfield, Grove, and Corkran (1979) that investigated the effects of "voice" (participating in allocation decision making by expressing one's own opinion about the preferred allocation) on responses to an inequitable allocation. Voice subjects expressed greater satisfaction than those with no voice. Bierhoff, Buck, and Klein (1986) indicated that the nature of group social relations also is a factor determining the appropriateness of various reward allocation principles. Group participation should have priority over the group goals (Schwartz, 1990).

Distributive Justice Norms

Lansberg presented three distributive justice norms proposed by Deutsch (1975) which affect perceptions of fairness. These norms include:

1. The equity norm which entitles the individual with the highest inputs to the largest proportion of the rewards being distributed.
2. The equality norm, which entitles group members to an equal share of the rewards being allocated regardless of their input; and,
3. The need norm, which entitles those who are most needy to a larger share of the rewards being distributed.

Theorists asserted that there are important situational factors that influence the choice of the distributive justice principle. The most extensively studied is the impact of cooperation and competition upon the perception of justice (Deutsch, 1968, 1980; Larwood, Kavanagh, and Levine, 1978; Leventhal, Michaels, and Sanford, 1972).

Deutsch (1975) posed the question: What conditions determine which values will be employed as the basis of justice? He offered the hypothesis that in cooperative relations in which economic productivity is a primary goal equity rather than equality or need will be the dominant principle of distributive justice; in cooperative relations in which the fostering or maintenance of enjoyable social relations is the common goal, equality will be the dominant principal of distributive justice; in cooperative relations in which the fostering of personal development and personal welfare is the common goal: need will be the dominant principle.

Deutsch (1975, 1979, 1985) concluded that the hypothesis has indicated that the tendency for economically-oriented groups will be to use the principle of equity, for solidarity-oriented groups to use the principle of equality, and for caring-oriented groups to use the principle of need as the basic value underlying the system of distributive justice. Deutsch recognized that most groups have more than one orientation and the fact that they will experience conflict between them (Deutsch, 1975).

<u>Equity</u>

The equity norm encourages individuals to allocate resources in proportion to their contributions. It occurs primarily in economically-oriented situations where maximizing economic productivity is a primary goal (Deutsch, 1975), where an individual's primary responsibility is to perform effectively (Leventhal, 1976b), and where individuals perceive each other as role occupants rather than individuals (Lerner, 1975; 1977). Deutsch (1975) argued that equity will be perceived as being most relevant in the context of business and economic relations where individuals are not concerned with group harmony (Kim, Park, and Suzuki, 1990) and have interpersonal, task-oriented relationships in which moderate competitiveness is found (Lansberg, 1984). These individuals tend to adopt rules that allocate scarce resources between different members of the group in ways that maximize overall productivity and efficiency within the relationship. According to Kabanoff (1991), these rules are oriented toward discovering differences between members both in terms of their potential to contribute and their actual contribution. In order to encourage and reward the contributions of the most able, outcomes are distributed according to input (i.e. equitably) (Kabanoff, 1991).

Deutsch (1979) summarized the typical consequences of an economic orientation as:

1. The development of a set of values which include maximization, a means-end schema, neutrality or impartiality with regard to means, and competition;
2. The turning of man and everything associated with him into commodities -- including labor, time, land, capital, personality, social relations, ideas, art, and enjoyment;
3. The development of measurement procedures which enable the value of different amounts and types of commodities to be compared;
4. The tendency for economic activities to expand in scope and size.

Deutsch (1979) concluded that these consequences would imply that if a social situation were characterized by impersonality, competition, maximization, an emphasis on comparability rather than uniqueness, and largeness in size or scope, then an economic orientation and the principle of equity are likely to be dominant in the group or social system. He proposed that the more competitive the people are in a group, the more likely they are to use equity rather than equality or need as the principle of distributive justice: the more impersonal the relations of the members of a group are, the more likely they are to use equity, and so on.

Studies by Gundlach and Murphy (1993) and Kim, Park, and Suzuki (1990) concluded that equity tends to be the guiding principle when economic productivity is a goal of a cooperative venture (Deutsch, 1975). Lansberg (1984) conducted a study to partially field test Deutsch's prediction that equity will be the preferred distributive justice norm in business settings. The study focused on investigating employee fairness attitudes toward different ways of allocating a hypothetical lump sum, including equity, equality, and need. Employees of one organization were asked to indicate the fairness of six different ways of allocating a hypothetical lump sum. As expected, the results suggested an overall preference for equity-based allocations. In a study of 132 graduate and undergraduate students and thirty-one practicing arbitrators, Notz and Starke (1987) concluded that decisions in the economic sphere of activity will be based on equity (Deutsch, 1975).

Equality

The equality norm dictates that profits or losses be distributed equally among members regardless of their objective contributions. It tends to be preferred under conditions of cooperative social harmony or friendship, where the fostering or maintenance of enjoyable social relations is emphasized (Deutsch, 1975), whenever maintenance of harmony or solidarity among receivers is important (Leventhal, 1976a), or when a person perceives another as an individual rather than as an incumbent of a social position (Lerner, 1975; 1977). For example, for the sake of maintaining interpersonal harmony within a group, when two or more of the same social network together, the manager tends to distribute the outcome of work to all co-workers in accordance with the equality rule, no matter how much actual input each of them objectively contributed toward the completion (Leung and Park, 1986). This occurs because people in a given interpersonal network may anticipate that they will continue to interact with others in the future and because distributing resources within a group according to the equality rule is an important method for preventing interpersonal conflict (Deutsch, 1975; Leventhal, 1976a; Shapiro, 1975).

Deutsch (1985) concluded that equality signifies that different members of a relationship have equal value as individuals, which creates the optimum conditions for the maintenance of mutual self-esteem. Equality of outcomes emphasizes members' common fate, thus promoting solidarity. The relationship is based on a person's sense of his/her relationship with the other person, rather than on a judgment of that person's contribution (Deutsch, 1985). Deutsch (1979) detailed the consequences of a equality solidarity-oriented group or society as:

1. The development of a set of values that emphasize personal ties to other group members, group loyalty, mutual respect, personal equality, and cooperation:
2. Uniqueness of attachments to people, activities, and objects associated with the group so that they are unexchangeable and therefore of absolute value:
3. The development of integrative procedures to reduce role conflicts, misunderstanding, and other sources of interpersonal hostility within the group.

With these consequences in mind, Deutsch (1979) proposed that the more face-to-face contact that members of a group have, provided none of them are considered to be a dependent status, the more likely they are to use equality rather than the equity or need: the greater the degree of friendship that exists with the group, the more likely they are to use equality, and so on.

Individuals expect that they are entitled to equal treatment, as well as equal shares of rewards and resources as others in their category are receiving. Berger, Zelditch, Anderson, and Cohen (1972) argued if two individuals have similar characteristics, they have a right to expect similar rewards as well. Much of the justice research supports the notion of equality among members of the same group (Austin, 1980; Berger, Zelditch, Anderson, and Cohen, 1972; Crosby, 1976; Deutsch, 1985; Goodman, 1976; Lerner, 1975; Leventhal, 1976a; Martin and Murray, 1983; Runciman, 1980; Williams, 1975).

Within the group category, responses to injustice will be mediated by a need to preserve the solidarity of the relationships (Deutsch, 1985).

Komorita and Leung (1983) used college students as subjects placed in bargaining situations. Komorita and Leung (1985) concluded that equality may be salient under certain conditions, a finding that is consistent with that of several theorists (Deutsch, 1975; Leventhal, 1976b; Mikula, 1980; Morgan and Sawyer, 1967). When partnership and mutual team membership were stressed, subjects tended to ignore input differences and adopted the equality principle in allocating rewards (Lerner, 1974a). The equality principle was found to provide status equilibrium (Kahn, 1972) and minimize interpersonal conflicts and potential dissatisfaction (Leventhal, Michaels, and Sanford, 1972). Austin (1980) found that college roommates are probably more concerned with harmony than productivity; this finding is consistent with the harmony-maintaining function of the equality rule.

Need

The need norm of justice dictates that dividends, profits, or other benefits should be distributed to satisfy recipients' legitimate needs, regardless of their relative contributions. It will be prevalent in situations where people are mutually interested in fostering personal welfare and development (Deutsch, 1975), when individuals have a very close relationship (Greenberg and Cohen, 1982; Lerner, 1975, 1977; Leventhal, 1976a), or when an individual has an identity relation and empathic involvement with other people (Lerner, 1975; 1977). Deutsch (1975) argued that need will be the guiding principle of justice underlying social exchanges within the family.

Deutsch (1979) characterized the caring orientation by a more direct and explicit responsibility for the fostering of the personal development and personal welfare of the others in the group. He identified several consequences of need orientation:

1. The development of a set of values which stress responsibility for the other. permissiveness toward the other's expression of his needs. heightened sensitivity to the other's needs and stage of development. support and nurturance in relation to the other's legitimate needs. and non-reciprocity in relation to the other's hostility as he/she suffers frustrations during the caring relationship;
2. The development of intimate ties which may reflect and express one's own early experiences in caring relationships.

Based on these consequences. Deutsch (1979) proposed that heightening the salience of the relative needs of group members and heightening the sense of responsibility in relation to the needs of the others would lead to the use of need rather than equality as the principle of distributive justice.

Support for the need norm can be seen in a study by Batson. Klein. Highberger. and Shaw (1995). The authors concluded that empathy in a group might induce a shift from using a principle of justice based on equality or equity to using one based on need (Deutsch. 1975). Cook and Hegtvedt (1983) reported that many researchers hypothesize that the needs rule is applied in groups that involve close personal relationships (Deutsch. 1975; Lerner. 1977; Mikula and Schwinger, 1978). Lamm and Schwinger (1983) tested the assumption that need-considering allocations follow a social responsibility norm. In a questionnaire experiment, forty-eight males indicated how they would allocate money between two hypothetical persons who needed different sums of money but contributed equally toward earning the money. The authors concluded that need consideration in allocation decisions is compatible with justice norms. The results also showed that if the group members do not have a positive relationship, a need considering allocation may result in conflicts (Schwinger, 1980).

Deutsch (1985) noted that people use different principles to judge fairness, depending upon the situation. Sometimes, fairness is determined by the relationship of one's (versus others') inputs and outcomes. However, in other instances, people will view resource allocations as more distributed more fairly when they are decided on the basis of the recipients' need; in still other situations, the principle of equality is perceived to be most fair. Theorizing on the scope of justice (Deutsch, 1985; Opotow, 1988) suggests that fairness concerns (whether defined on the basis of equity, equality, or need) are not psychologically salient to individuals unless the affected person or persons are within the perceiver's scope of justice (Brockner, 1990).

Applications Of Distributive Justice

Leung and Park (1986) concluded that some evidence has been obtained to support Deutsch's (1975) hypotheses. Researchers have applied distributive justice to major areas of human interaction such as intimate/close relations (Cate, Lloyd, and Long, 1988), organizations (Griffith and Sell, 1988; Hafer, 1993), culture (Fiske, 1992) and others.

Intimate/Close Relations

Referring to the work of Deutsch (1975, 1985), Cate, Lloyd and Henton (1985) examined to what degree equity, equality, and reward level discriminate between stable and unstable premarital relationships. Questionnaires were administered to 131 American students to ascertain the level of equity, equality, and rewards in their current premarital relationships. They were tested three months, and again seven months after initial contact. The results suggested that rather than using static rules, individuals may allocate rewards on the basis of which partner is most in need at a particular point in time (Deutsch, 1975). Reward allocation may be more a function of the nature of the relationship (e.g., pattern of needs between partners) rather than his or her cognitive rules about distributing rewards (equity or equality). The study concluded that when individuals feel that their needs are being met, they perceive the rewards in the relationship to be high (Cate, Lloyd, Henton, 1985).

In a study by Houlihan, Jackson, and Rogers (1988), ten satisfied and ten dissatisfied married couples were asked to describe how they made decisions of low, moderate, and high levels of difficulty. Responses were coded as reflecting the use of equity, need-based, or situational. Results were consistent with previous findings that multiple norms are used in decision making of both satisfied and dissatisfied couples. The pattern of norm use observed in this study was consistent with the theories proposed by Leventhal (1976b), Deutsch (1975), and Pruitt (1972). Situational norms, the most frequently used at all levels of difficulty, are instrumental in that they provide solutions to specific situations while necessitating little discussion or controversy. Given the larger number of decisions that married couples are required to make, it follows that these norms would be an efficient means of reaching decisions and thus would be used frequently.

Based on Deutsch's (1975) hypotheses, Morgan and Sawyer (1979) conducted an experiment with pairs of equity-oriented strangers and equality-oriented friends. The results showed that strangers increased their competition in response to perceived inequality, but friends did not. On an average over several trials, without regard to perceived inequality, all pairs tended to achieve equal allocations. The findings support the hypothesis that equity and equality operate as separate procedural norms. Lamm and Schwinger (1980) demonstrated in a vignette study that allocation according to need was more prevalent among friends than non-friends who worked jointly and contributed equally on a task. Marin (1984) claimed that an equal allocation has been shown to be perceived as producing friendlier, more positive relationships among allocator and recipients (Deutsch, 1975; Leventhal, 1976a; Leventhal, Michaels, and Sanford, 1972; Marin, 1981).

Organizations

Freedman and Montanari (1980) presented an integrative model of the reward allocation process in organizations. The study concluded that a manager faced with a reward decision will decide on a distribution rule or principle in making the allocation and that managers with numerous reward decisions tend to develop a guide to ease decision in making future situations. The study also found that principle is most likely to be used in economic exchanges such as the employer - employee relationship (Deutsch, 1975; Leventhal, 1976a). The authors suggested that the principle of rewarding equally regardless of differences in input will be used in situations where social relations are important to the allocator (Deutsch, 1975; Leventhal, 1976a). Depending on the allocation rule employed, different reward decisions can result. Managers using exchange rules based on equity, equality, or need will generate a broad range of reward levels for the same employee (Freedman and Montanari, 1980).

A study by Gibson, Thompson, and Bazerman (1996) concluded that any one or a combination of several different social justice principles may guide the distribution of resources (Deutsch, 1975). The results showed that mediators should be aware of the particular rule that they are applying. The authors suggested that mediators are not aware of the principles of social justice that can strongly influence their behavior (Messick, 1993). Mediators may develop a single justice rule. The study concluded that it may be necessary for the mediator to articulate the various principles and ensure that the parties are operating from a common perspective. A justice model of applicant's reactions to employment-selection systems was proposed by Gilliand (1993). Distributive justice of hiring decisions was examined with respect to equity, equality, and needs. This study concluded that researchers in social psychology have supported the existence of equality and needs rules (Cohen, 1987; Gordon and Fryxell, 1989).

Howard and Tyler (1986) directly examined the importance of procedural justice in allocation decisions relative to the value placed on distributive justice. Subjects considered allocations made within sixteen representative types of interpersonal relationships. This study relied on the classification of fundamental dimensions of interpersonal relationships by researchers (Deutsch, 1982; Wish, Deutsch, and Kaplan, 1976; Wish and Kaplan, 1977) and assumed as Deutsch did, that the nature of participant reactions to allocation decisions is grounded in the characteristics of the participants' shared interpersonal relationship. The psychology of procedural justice was examined considering the relation of procedural justice to the goals of decision making (Deutsch, 1975; Lamm, Kayser, and Schwinger, 1982; Mikula and Schwinger, 1978). Following the suggestion of Deutsch (1975) and others, the authors used goal based analyses to consider three potential goals: maximizing productivity (equity), facilitating positive social relationships (equality), and maximizing participants' welfare (need) (Austin, 1980; Benton, 1971; Leventhal, 1976a, b; Leventhal, Michaels, and Sanford, 1972; Morgan and Sawyer, 1967, 1979; Shapiro, 1975).

Miller and Komorita (1995) was based in part on Deutsch's (1975, 1985) hypothesis that if productivity or performance is a major concern, reward allocations based on the equity principle are more likely, whereas allocation based on the equality principle are more likely if the concern is with maintaining group harmony. Three situational situations were varied to assess the relative weight given to equity and equality principles in reward allocation in task-performing groups. The findings were consistent with the findings of Deutsch (1975) that members of task-performing groups believe they will work harder and be more productive under equity principle than under equality. Participants recommended allocation closer to equity when the purpose was to promote performance than when the purpose was to be fair as possible. There was a tendency for participants to propose that rewards be distributed more equally when the purpose was to be fair. This finding was consistent with Deutsch's (1975) hypothesis that the equality principle may be most salient when the purpose of the rewards is to enhance group performance.

Mannix, Neale, and Northcraft (1995) examined the effects of organizational culture and resource valence on the decision rules individuals enact in creating fair resource allocations (Deutsch, 1975). It was hypothesized that organizational culture (economically oriented, relationship-oriented, or personal development-oriented) would determine which distribution principle (equity, equality, or need) group members would use to allocate resources. Results generally supported the hypothesized links between culture and the resource distribution used by the principles proposed by Deutsch (1975). Research revealed that organizations in which members view themselves as being treated in accordance with what they feel entitled to can be thought of as having high levels of internal justice (Deutsch, 1974, 1975; Gurr, 1970; Jasso, 1980, 1983; Lawler, 1971; Lerner, 1975). Organizations in which members do not view themselves as being treated in line with what they feel they are entitled to are characterized as having high levels of conflict and dissatisfaction (Adams, 1965; Deutsch, 1974, 1985; Greenberg, 1987a; Folger, Sheppard, and Buttram, 1995; Homans, 1974; Lawler, 1971, 1981; Leventhal, 1976a).

Culture

Hutz, DeConti, and Vargas (1993) compared the use of distributive rules of Deutsch (1975) in systematic and nonsystematic allocation utilizing 742 Brazilian undergraduates. The results were consistent with studies involving American subjects and indicated that the equality rule was used most often when it resulted in equal division of resources. When allocations were systematic, there were significant increases in the proportion of equity in some considerations. In a study of Colombian and American subjects, Marin (1981) found that people from both cultures perceived the equality rule as promoting a friendly atmosphere and the equity rule as maintaining fairness.

Leung and Park (1986) tested Deutsch's (1975) hypotheses in a sample of multinational subjects by manipulating the goal of the situation and observed how the change in the interactional goal affects people's preference for different justice rules. The study also examined the exact relationship between people's perception of the interactional goal of the situation and their preference for justice rules. The results of this study strongly supported Deutsch's (1975) hypotheses. In the company situation, where the interactional goal was perceived to be enhancing productivity, subjects regarded the equity rule as fairer and used the equity rule to allocate a reward between two workers. In contrast, in the neighborhood situation, where the interactional goal was perceived to be enhancing friendship, subjects rated equality fairer and used the equality rule in reward allocation. The results also showed Deutsch's hypotheses held true across different multinational groups.

Wagstaff, Huggins, and Perfect (1992) conducted a study in which British students were given scenarios about family and business situations and were asked to rate various cost allocation decisions in terms of fairness, justice, and conflict. In terms of fairness/justice, there was no difference between the need and equity allocations in the family situation, though equity was preferred in the business situation (Deutsch, 1975).

Lin, Insko, and Rusbult (1991) discussed Hwang's (1987) development of a Chinese model of resource distribution and exchange. Hwang's model was partially based on the work of Foa (1971) and asserted that the resources of social exchange include money, goods, information, status, service, and affection. As was the case in Foa's model of social exchange in Western cultures, Hwang's model asserted that the nature of exchange differs across different types of social relationships. Furthermore, the specific patterns of relationship -- specific exchange discussed by Hwang and Foa are similar. Also, following Deutsch's (1975) model of justice rules in Western cultures, Hwang proposed that within the Chinese family that social exchange is based on the need rule; with temporary and anonymous relations as between a clerk and a customer, exchange is based primarily on the equity rule; and within school and work groups exchange is based on equality. Given the similarities between the Hwang (1987) model of exchange processes in Chinese culture and the models of social exchange and justice processes advanced by Deutsch (1975) and Foa (1971), the study found broad allocation tendencies similar to the two cultures.

Other Applications

Zinser, Starnes, and Wild (1990) found evidence for the existence, application, and development of the justice of need in school children. The application of need and equality was more prominent for the younger children, and the application of equity was more prominent for the older children. A number of studies have shown that male subjects preferred to use the equity rule and female subjects preferred to use the equality rule (Landau and Leventhal, 1976). The commonly accepted explanation for this sex difference is that males are more oriented toward competition, and females are more oriented toward cooperation and interpersonal harmony (Austin and McGinn, 1977). This reasoning assumes according to Sampson (1975) that the equity enhances competitiveness and the equality rule promotes a good interpersonal relationship.

Research has been conducted on distributive justice based on the study of Deutsch (1975) in areas such as family income (Alwin, 1987), first impressions (Greenberg, 1990 a, b), women in female type occupations (Moore, 1991), moral values (Opotow, 1990, 1995; Rasinski, 1987), social desirability (Platow, 1993), life chances (Ritzman and Devy, 1992), performance-based and mobility-based reward allocations (Rusbult, Campbell, and Price, 1990), perceptions of distributive justice (Shepelak and Alwin, 1986), macro-justice versus micro-justice (Sinclair and Mark, 1991), injustice and frustration (Steil, Tuchman, and Deutsch, 1978), drug testing (Sujak, Villanova, and Daly, 1995), need and performance information (Tindale and Davis, 1985), and distribution and retribution (Tornblom and Jonsson, 1985).

Limitations of Distributive Justice

Cook (1986) pointed out that Deutsch (1975) may have overstated the case for a different look at equity theory. A study by Kayser and Lamm (1981) required twelve male and twelve female gymnasium students to allocate a profit between two hypothetical persons described as friends. The findings of the study showed the assumption of a preference for an equality principle of distributive justice in close relationships as predicted by Deutsch (1975) could not be upheld.

Miller (1992) suggested that when Deutsch (1975) introduced his classification of principles of justice -- equity, equality, and need -- that he hypothesized that equality would be favored in relationships in which the fostering or maintenance of enjoyable social relations is the common goal, whereas need would be favored where the fostering of personal development and personal welfare is the common goal. Miller (1992) concluded that it will be difficult in practice to separate these alternatives. Where people have warm relations with one another and feel a sense of solidarity with their group, according to Miller (1992) it is likely they will also feel committed to advancing another person's welfare. Thus, the author concluded that the two goals will often go hand in hand.

Soltan (1982) presented empirical evidence by Goode (1978) against Deutsch's (1975) hypothesis concerning equality being the principle of distributive justice used by social groups. Fraternal lodges, sororities and fraternities, or boys' gangs are all groups designed to foster enjoyable social relations, but they are not known for promoting close ties and mutual respect among members. Goode suggested that only situations foster enjoyable social relations, not groups. He gave as examples office parties, festivals, and dinners. Soltan (1982) concluded that within such situations, the norm of equality applies.

Resource Exchange Theory

Social exchange as discussed previously makes it clear that numerous theories and views concern the exchanges that take place in interpersonal relationships. Foa and Foa (1974) proposed a Resource Exchange Theory which attempts to encompass the basic ideals of the various positions which researchers take in their work on Social Exchange Theory -- that in any relationship the individuals involved strive to maximize their "rewards" while at the same time minimizing their "costs." Resource Exchange Theory attempts to include the ideals of most theories concerning Social Exchange Theory (Foa and Foa, 1974).

Most of the studies of allocation and exchange of resources involve distributions of economic, or tangible, resources such as money and various commodities (Foa, 1970; Deutsch, 1975; Kayser and Schwinger, 1982; Leventhal, 1976b; Mikula, 1980; Schwinger, 1980); similarity, attraction, intimacy, and interdependence among group members (Greenberg and Cohen, 1982; Hensley, 1992; Lerner, 1974b); cognitive development (Leventhal, 1976b); anticipation of further interaction (Mikula and Schwinger, 1978); source of injustice (Lerner, 1974b); access to resources (Moore, 1978); institutional context (Foa and Stein, 1980; Goode, 1978); identification with the subject (Lerner, 1974b; Moore, 1975); societal degree of development (Moore 1975); societal affluence, heterogeneity, and cohesiveness (Gans, 1973); sex (Lane and Messe, 1971; Lerner, 1974b; Leventhal and Anderson, 1970; Mikula, 1974); and age (Lane and Coon, 1972; Lerner, 1974b; Leventhal and Lane, 1970; Soloman and Druckman, 1971; Tornblom 1977). Less research effort has been directed towards the study of intangible resources such as love, status, or information (Tornblom, Jonsson, and Foa, 1985).

An important definition from Foa and Foa (1980) states that a "resource" is anything transacted in an interpersonal situation. They further defined a resource as anything that can be transmitted from one person to another (Foa and Foa, 1976). It encompasses, therefore, many different events: material objects such as a dress, a flower or a bottle of wine, money and equivalent forms of payment, a kiss, a medical or beauty treatment, a newspaper, a congratulatory handshake, a glance of admiration or reproach, a pat on the back, or a punch on the nose. Other examples may include a smile, a check, a haircut, a newspaper, a reproachful glance, and a loaf of bread. Obviously, all these things cannot be grouped together. Some resources clearly are more alike than others in terms of their meaning, their use, and the circumstances of their exchange. In short, a resource is any item which can become the object of exchange among people. (Foa and Foa, 1976; Foa and Foa, 1980). Resource values develop in the context of enduring patterns of social exchange. Resource values are thus sources of reward, satisfaction, or goals. The values associated with specific resources describe the predictable motivation to accumulate and/or exchange those resources (Walbridge, 1984).

Van Kreveld and Van Beemen (1978) concluded that resources generally can be classified as tangible (concrete) or intangible (abstract). This review indicated, moreover, that tangible resources were most frequently distributed according to either the equity or the equality rule, while the norm of reciprocity governed the distribution of intangible resources. Van Kreveld and Van Beemen also stated that the norm of reciprocity follows the "golden rule" of treating others as they treat him/her. There is no requirement that people must receive the same resource in an exchange. Individuals would not have to receive the same resource in an exchange in order to feel that they have been treated fairly. The authors concluded that both reciprocal exchange and the sharing of benefits (intangible resources) are more acceptable in personal rather than in positional relationships; thus reciprocity would govern the distribution of benefits (love, status, and information) (Tornblom, Jonsson, and Foa, 1985).

Other studies have investigated numerous problems in social exchange by manipulating various resources. In some studies, a single resource was manipulated: in others, two or more were used jointly without proper discrimination of their different natures. Resources such as money, services, love and status were most frequently manipulated. The resource of information was seldom studied, and the goods resource was practically unstudied in exchange situations. For example, exchanges of love were studied by Backman and Secord (1959), Blumberg (1969), and Lowe and Goldstein (1970); provisions of services were studied by Berkowitz and Daniel (1964), Berkowitz and Friedman (1967), Goranson and Berkowitz (1966), and by Schopler and Thompson (1968): money exchanges were studied by Leventhal, Weiss, and Buttride (1973) and by Pruitt (1968). Resources belonging to two classes were used jointly. Kiesler (1966) and Schopler and Thompson (1968), for example, combined love and services. Love and status were combined in studies conducted by Aronson and Worchel (1966), Byrne (1961, 1969), and Hewitt (1971). Services and money were used in exchanges by Leventhal and his associates. Weinstein, DeVaughan and Wiley (1969) combined services and information.

Human exchange demands a wide range of resources. Some first steps in identifying this range of resources were taken by Foa (1971) and Foa and Foa (1974) who proposed a classification of resources that attempts to group and distinguish resources in a manner that reflects similarities and differences in the behaviors associated with them.

The theory was based on a facet-analysis (Foa, 1961; Foa, 1964; Foa, 1965; Foa 1966) of resource exchange principles and proposed that social behavior can be understood as the giving or denying of six basic types of resources (Adamopoulos, 1984). The facet analysis (Guttman, 1958) is a very useful general approach to interpersonal behavior. This theory requires a wide approach to the study of cognitive, instrumental, and effective behavior and is content free and is potentially applicable to any content domain. The beginning of the facet theory method defines specific content domain from a universe of interest and hypothesizes facets that underline the domain. Separate concepts, components, or aspects of the variables that are to be used to measure the content domain may be assumed to be facets. The content domain allows a systematic definition of variables within a specific research field in terms of facets, which leads to testable theoretical predictions of the empirical interrelationships among the variables (Vertommen, 1979). Foa's classification of resources also attempted to bridge the gap between the exchange of economic and social resources, determine their order and the rules for their exchange as seen from the interpersonal and economic perspective. The theory's application extends far more than merely to predict patterns of resource exchange (Brinberg and Castell, 1982; Brinberg and Wood, 1983; Foa and Donnenwerth, 1971; Foa and Foa, 1972, 1973, 1974, 1980; Foa, Megonigal, and Greipp, 1976; Foa, Turner, and Foa, 1972; Turner, Foa and Foa, 1971). Foa distinguished six general classes of resources -- love, status, information, money, goods, and services (Griesinger 1990).

Foa and Foa's (1974) Resource Exchange Theory considered economic and psychological resources to be interdependent and equally necessary in evaluating quality of life. They link the concepts of resources, needs and satisfactions, considering time, space, energy, and institutional environment as important factors influencing resource exchanges. Since humans are social creatures, they enjoy companionship and need the support of a group for survival. They also have needs for resources that may not be satisfied in isolation. Humans depend upon other for these resources and seek situations to exchange them through interpersonal behavior. The probability of an interpersonal exchange taking place depends upon the properties of resources to be exchanged, appropriateness of the environment, and the motivational state of potential exchangers (Rettig and Bubolz 1983). Foa and Foa viewed all behavior as an exchange of resources (Weeks and Johnson, 1980). Empirical studies by Foa (1971) and his associates (Foa and Foa, 1974; Foa, Turner, and Foa, 1972; Teichman, 1971; Longabaugh, 1963) have pointed out that the type of resource class involved in social exchange may, indeed, provide important insights into the exchange process at both the interpersonal and societal levels of analysis (Donnenwerth and Foa 1974).

A description of the psychological mechanisms required for these exchanges specifies their course of development; their parts and dimensions and the function they play in interpersonal encounters is an important aspect of Resource Exchange Theory. It relates individual structure to the structure of society and provides a basis for classifying differences among individuals and cultures. Shared and dissimilar properties of economic and non-economic resources may establish a link between economics and other social sciences. Within this context, seemingly disparate notions, such as cognitive dissonance, interpersonal communication, social roles, cross cultural training, leadership, need, power, alienation and psychotherapy are integrated into a coherent whole (Foa and Foa 1974).

All interpersonal encounters may indeed be perceived as transactions, the rules of exchange vary systematically for different types of transactions (Foa and Foa, 1976). They offer a system for sorting them into homogeneous categories by recognizing the existence of qualitative differences among transactions. Rules of exchange vary systematically across types of transactions and suggests that these types are organized into a distinct pattern, or structure, according to their relative similarity and dissimilarity. Thus similar transactions will have similar rules of exchange, while dissimilar ones will follow a different set of rules. In this manner, economic and psychological exchanges, though not equated, are considered within the same framework.

Classes

Foa and Foa (1974, 1976), extended their previous work (Foa, 1961; 1964; 1965; 1966), by proposing grouping resources into six classes according to their similarity as can been seen in Figure 1. These six classes are exchanged in interpersonal transactions based upon the needs of the exchangers, the institution of exchange and the properties of the resource. The six classes of love, status, information, money, goods, and services are plotted on two conceptual dimensions: particularism and concreteness. Their order is circular. All transactions involve the exchange of one or several of these resources (Weeks and Johnson, 1980). The classification pertains to the meaning assigned to behavior rather than to behavior per se. It is often the case that the same behavior will vary in meaning across different contexts although the success of any given exchange is predicated on a shared understanding and expectancy of appropriate exchange (Turner. Foa, and Foa, 1971). Therefore, the categorization of a particular resource is an act of individual evaluation; also, this process is closely related to the cognitive structure of the particular subject, and its experiences in the past with this specific behavior, generally speaking, the individual learning history (Stangl, 1989).

Position of the Six Classes

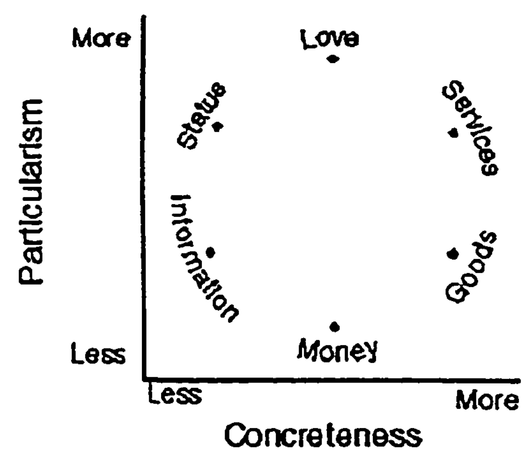

Figure 1 Position of the Six Classes of Resources

Source: Adapted from Foa, U. G. and Foa, E. B. (1974). Societal Structures of the Mind. Springfield, Illinois: Thomas.

Classifications such as the six classes proposed by Foa and Foa (1974) have appeared in the literature: economists have dealt with money, goods, and services and have considered the relations among these resources in terms of prices and wages. Previous theories of interpersonal resources have emphasized one or more classes, but largely ignored the others. Foa and Foa (1980) and others conceptualized all classes of resources within a single framework that accommodates their differences as well as their similarities (Foa and Foa, 1980; Foa and Krieger, 1985; Foa, Salcedo, Tornblom, Garner, Glaubman, and Teichman, 1987).

Definitions of Classes

Turner, Foa and Foa (1971) defined love as an expression of positive regard, warmth, or comfort that is expressed most easily in communication such as touch, eye contact, posture, proximity, and facial expressions. Stangl (1979) also defined love as an expression of evaluative judgment which conveys high or low prestige, regard, or esteem. Foa and Foa (1974) claimed that love is conveyed in verbal messages of affection, liking, enjoyment and physical messages of touch, expressions of the face, eye contact, body posture, and physical proximity.

Status is defined as an evaluative judgment that conveys high or low prestige or esteem and, in contrast to love, is conveyed in verbal, symbolic behaviors in messages of respect and confidence in competence (Rettig and Bubolz, 1983; Turner, Foa, and Foa, 1971). In contrast to love, Rettig (1980) reported that status is conveyed in verbal (symbolic) behaviors in messages of esteem, respect, and confidence in competence.

Service constitutes concrete activities performed on the body, belongings, or environment of a person, usually involving labor of one person for another to increase comfort or save energy (Rettig and Bubolz, 1983; Stangl, 1989; Turner, Foa, and Foa, 1971). The value derived from services received is dependent upon the person providing the services (Rettig, 1980).

Information is denoted as advice, opinions, instructions or enlightenment, but is exclusive of behaviors that could be classified as love or status and has the most symbolic form of expression (Rettig and Bubolz, 1983; Turner, Foa, and Foa, 1971). The individual giving the information does not increase or decrease the amount of information possessed by giving it to others (Rettig, 1980).

Stangl (1989) defined goods as tangible products, objects, or materials. He also stated that money is any coin, currency, or token that has some standard unit of exchange value (Stangl, 1989; Turner, Foa, and Foa, 1971). Exchanges of goods and money also contribute to the quality of the relationship and may be simultaneously exchanged with psychological resources (Rettig and Bubolz, 1983). Rettig (1980) concluded that the value of goods received is not as dependent upon the person who gives the object (Rettig, 1980).

A major concern involves the number of resources that appear to be missing from the six classes proposed by Foa and Foa (1974). Why has time not been included as a resource class since interpersonal behaviors are often expressed as a function of time? Time is not considered a resource, although it is a prerequisite for giving and receiving resources. The time required for exchange varies for different resources. The concept of time is viewed as a factor that may influence an exchange (e.g., acting as a constraint), but not as a resource class in its own right. Foa (1976) noted that time may be treated as a resource that can be exchanged, but need not be treated as a separate resource class. The exact location of time within Foa's system depends on its relationship with the other resources (Brinberg and Wood, 1983).

Foa and Foa (1976) discussed the fact that personal space such as a home or office qualifies as another requirement for interpersonal exchanges since space assures the privacy needed to avoid unwanted exchanges while one engages in the desired ones. The authors concluded that space, like time, is not a resource class in its own right: rather it is a factor that influences resource exchange. Another resource that appears to be missing in the present classification is sex. Sex does not appear to constitute a separate class of resources, as it may be included in either love or service, depending on the circumstances (Foa and Foa, 1976).

Class Dimensions

The classification of six resources groups, as well as differentiates, interpersonal resources in a way that reflects similarities and differences in the behaviors associated with them (Teichman and Foa, 1975). The classes can be ordered on two dimensions: a dimension of particularism (Parsons, 1951), ranging from the most particularistic to the most impersonal or universal, and a dimension of concreteness, going from concrete to symbolic (Foa and Foa, 1972).

Particularism indicates the extent to which the value of a given resource is influenced by the particular persons involved in exchanging it, by their relationship, or the particular circumstances of the exchange (Adamopoulos, 1984; Foa, 1971; Foa, and Foa, 1976; Griesinger, 1990; Longabaugh, 1966) For example, changing the bank teller will not make much difference for the client wishing to cash a check, but a change of doctor or lawyer for a patient or a client is less likely to be accepted with indifference by either. One is even more particularistic with regard to a friend, a spouse, or a mother (Foa and Foa, 1976; Foa, 1971; Harlow and Suomi, 1970).

The dimension of concreteness distinguishes the degree to which a resource is more concrete than symbolic; it is a more tangible product or specific overt behavior (Griesinger, 1990). This attribute ranges from concrete to symbolic and suggests the form or type of expression characteristic of the various resources. Some behaviors, such as handing an object or performing an activity on the body or the belongings of another individual are quite concrete. Other forms of expression, such as language, posture of the body, a smile, a gesture, or facial expression, are more symbolic (Foa, 1971; Foa, Salcedo, Tornblom, Garner, Glaubaum, and Teichman, 1987; Harlow and Suomi 1970).

Position of the Classes

Resource classes depicted in Figure 1 are adapted from Foa and Foa (1974). The classes are shown as discrete and neatly separated from one another. The resource classes assign meaning to actions but are not a classification of actions; therefore, each class covers a wide range of actions that all convey the same resource (Foa and Foa, 1976). The figure shows essentially the relative similarity among the various resource classes on the two attributes of concreteness and particularism; the nearer any two classes are on a given coordinate, the more similar they are perceived on the corresponding attribute (Foa and Foa, 1980). Resource similarity is used to refer to identical resources or to different resources belonging to the same resource class. Dissimilarity refers to resources from different resource classes (Tornblom, Fredholm, and Jonsson, 1987). The most appropriate reciprocation is in kind (Gergen, 1969). This suggestion was supported by several studies which show that a person likes those who like him/her and dislikes those who dislike him/her (Backman and Secord, 1959; Blumberg, 1969; Lowe and Goldstein, 1970; Ossorio and Davis, 1966), tends to help people who previously helped him/her (Goranson and Berkowitz, 1966), and provides more rewards to donors who were generous with him/her (Pruitt, 1968).

On the first coordinate, concreteness, services, and goods involve the exchange of some overtly tangible activity or product and are classed as concrete. Status and information, on the other hand, are conveyed by verbal or paralinguistic behaviors and are thus more symbolic. Love and money are exchanged in both concrete and symbolic forms, and thus occupy intermediate positions on this coordinate.

Love and money are extreme and opposite positions on the particularistic coordinate. Love is probably the most particularistic. The particular person with whom love is exchanged makes a great deal of difference. Money, on the other hand, is the least particularistic resource; it will retain the same value, regardless of relation between or characteristics of, the reinforcing agent and recipient. For example, a change of clerks in the cashier's office, where a bill is paid or a salary received, would scarcely be noticed. Between these extremes, services and status are less particularistic than love while being more particularistic than goods or information. Services are more particularistic than goods, and status is more particularistic than information. For example, one person can convey his/her liking for another by verbal means, by a smile, a kiss, or some other display of affection (Foa, 1971; Foa and Foa, 1974; Turner, Foa, and Foa, 1971).

Services and goods appear on the second dimension to be concrete while status and information are symbolic; love and money occupy an intermediate position as they share both concrete and symbolic aspects (Foa and Foa, 1972). It is more accurate to consider each class as occupying a range in the order, and that some of its elements will be nearer to one of the two neighboring classes than to the other (Foa, 1971; Turner, Foa and Foa, 1971).

Examples of Relationships Between Classes

Foa and Foa (1976) provided examples that help illustrate the relationships between the six classes and their location on the circular model developed by Foa and Foa (1974). Some forms of expression are closer to one neighbor than to the other for any given resource class. A verbal expression of love may be symbolic and thus is more closely allied to status than to services. Conversely, fondling and kissing are concrete ways of expressing affection and are closer to services than to status. Services to the body are proximal to love, while services to one's belongings are nearer to goods. A credit card can be considered a form of money, but it is more particularistic than currency; not every merchant will honor a credit card and the card is not issued to everyone. This form of payment is also more symbolic than currency. While currency actually changes hands, nothing concrete is given in a credit card payment. Therefore, a credit card will be nearer to information than currency. In fact, the card provides information on the solvency and reliability of the holder (Foa and Foa, 1976).

Support for Foa's Circular Model

The following discussion presents studies that provide support for the circular model developed by Foa and Foa (1974). Teichman and Foa (1975) conducted research based on Homans' (1961) distributive justice and Adams' (1965) equity theory that has shown that inequity feelings can be created by varying the amount of the exchanged resource. The study indicated that feelings of inequity may follow, not only inappropriateness in the amount of reciprocation, but also an inappropriate kind of reciprocation -- resources more distal in the order are less appropriate for exchange. Satisfaction was found to be lowest when the resources most dissimilar such as love and money were exchanged. Satisfaction was found to increase as the transaction involved progressively more similar resources (Teichman and Foa, 1975).

A study of 131 female undergraduate students experimentally created interpersonal exchange situations in which two dependent variables -- the resource given by the subject and the resource received by him -- were manipulated (Teichman, 1971). The researchers reported that satisfaction following an exchange relation is related to the proximity, that is, similarity, between the exchanged resources. An individual, according to these findings, who gives a resource to another in an interpersonal situation is more satisfied if the reciprocation by the other occurs with the same or proximal resource than if the reciprocation is with a distal resource (Donnenwerth and Foa, 1974). The study of inappropriate exchanges has broad application for critical situations in everyday life. Workers, for example, striving for a sense of belongingness are often offered increased salaries and still show dissatisfaction (Foa and Foa, 1974).

In a study with 120 female undergraduates, Teichman and Foa (1975) predicted that the amount of satisfaction following an interpersonal exchange would be higher when the resource given was similar to the one reciprocated, and lower when they were dissimilar. This study experimentally created interpersonal exchange situations in which the resource given and the resource received were manipulated. Each individual was asked to give another person one of the following resources: love, status, information, money, goods, or services. The other person then reciprocated with one of two predetermined resources: money or love. The hypothesis was supported when money was the resource of reciprocation. When love was the resource of reciprocation, the result was a lower level of satisfaction than was expected.

Turner, Foa and Foa, 1971 in a study of thirty-seven undergraduate students tested the proposed order among six classes of interpersonal resources. The research consisted of three interrelated studies dealing with perceived similarity of resources, their exchange, and their structural invariance. The findings have shown that resources proximal in the order are perceived as more similar, more substitutable for one another, and more likely to be preferred in exchange. It was found that preference for other resources was directly related to their proximity to the most preferred one.

Foa and Foa's (1974) Resource Exchange Theory has been utilized to examine the types and patterns of exchanges involved in interpersonal interactions (Brinberg and Wood, 1983). The study used two judgment tasks to test both the functional and structural aspects of the theory and hypothesized that the dimensions of particularism and concreteness would underlie the six resource categories of love, status, information, money, goods, and services. Resources perceived to be in the same category were hypothesized to be exchanged with a higher probability than resources in different categories. Support for both the structural and the functional relations among the resource categories was not consistent with the initial classification of the behaviors used to represent the six resource categories but was consistent with the meaning associated with the behaviors.

Brinberg and Castell (1982) examined the types and patterns of exchanges involved in fifty-seven college students' interpersonal interactions in an experiment employing Foa and Foa's (1974) Resource Exchange Theory. All descriptions of behaviors representative of resource classes were empirically derived and then presented to subjects in all possible combinations of pairs. For each pair, subjects were requested to indicate on a seven-point scale, the degree of similarity or dissimilarity between the two paired descriptions. The results were consistent with the patterns of exchanges proposed by Foa and Foa with the exception that money was found to be as particularistic as love. The authors attributed this finding to the particularity of the population of college students studied. Brinberg and Castell (1993) reported a study, based on Foa and Foa's (1974) theory, that was designed examine the effects that different role relations (friend, acquaintance, and stranger) might have on the exchange of resources. The results suggest that resource availability (scarcity) might account for the asymmetry in the exchange of resources.

Several authors have proposed that acquaintances typically exchange similar resources, while intimates are more at liberty to exchange dissimilar ones (Clark and Mills, 1979; Hatfield, Utne, and Traupmann, 1979; Holmes, 1981; Walster, Walster and Berscheid, 1978). An examination of the results of earlier studies (Clark, 1981, 1982; Tornblom and Fredholm, 1984) showed that the existence of friendship was attributed on the basis of both similarity (comparability) and dissimilarity (non-comparability) of resources exchanged (Tornblom, Fredholm, and Jonsson, 1987).

The influence of resource loss and of resource retaliation on the intensity of retaliation and the intensity of hostility in aggressive exchanges has been investigated by Donnenwerth and Foa (1974). Subjects were exposed to one of six types of resource loss and were allowed to retaliate in one of two classes (love, money). Analysis of data involved comparing the intensity of retaliatory responses within each class of retaliation (love, money) for the six resource classes in which loss was incurred. The same type of analysis was used for residual hostility. The resource model is clearly supported in predicting the intensity of retaliatory responses and the level of hostility following retaliation. The findings suggest that justice or reciprocity is more easily established when the resource classes involved in the exchange are closer in the order proposed by the model. In particular, subjects preferred to retaliate in resource classes proximal to that in which loss was incurred. Foa, Foa, and Schwarz (1982) found similar results when they tested the proposed pattern in an experiment on the diffusion of anxiety where subjects were induced to expect loss of resources in a given class. Foa, Turner and Foa (1972) reported two studies in which subjects responded to questionnaire items which provided hypothetical frustrating situations and asked them to choose from paired alternatives their most preferred retaliatory response. Results of both studies reported are consistent with the theoretical order obtained by arranging the six classes of aggressive behavior on two dimensions.

The research (Foa and Foa, 1974; Foa,1971; Turner, Foa, and Foa, 1971; Teichman, 1971) has indicated that the resources proximal to each other are perceived as more similar, that individuals prefer to reciprocate in a resource class most similar to that in which they have received benefits, that individuals are more satisfied with the reciprocal activity of others the more similar the resource of reciprocation is to that class in which the others have given to them, and that individuals when caused a loss by another prefer to retaliate in a resource class proximal rather than distal to the one in which the other has caused them a loss.

Foa and others found that exchange properties vary according to the dimensions of the resources with respect to both efficiency and effectiveness. Exchanges are preferred between similar, rather than dissimilar, resources (Foa and Foa, 1974; Brinberg and Castell, 1982). More of a dissimilar is preferred, rather than a similar exchange, as in the case of quantity being substituted for quality. In spite of such increased intensity, a dissimilar exchange will be less effective and less satisfying than one that involves suitable resources (Foa and Foa, 1980; Teichman and Foa, 1975). When a person is denied an expected resource, the affective efficiency and effectiveness of retaliatory withholding will be greater the more similar the resource withheld is to the one denied (Donnenwerth and Foa, 1974).

Modes of Exchange

Foa (1966) suggested two modes of exchange: giving and taking away. He defined giving as a behavior which increases the amount of particular resource of the person to whom it is given. He stated that taking away is a behavior which decreases the amount of the specific resource available to the person from whom it is taken. For each resource, four classes of exchange behaviors have been proposed, resulting from the combinations of two modes (giving and taking away) and two objects (self and other):

giving to other, giving to self, taking away from self, and taking away from other (Foa and Foa, 1974).

Foa and Foa (1980) summarized the findings from research on the modes of resource exchange as follows:

1. The larger the amount of a resource possessed by a person, the more likely it is to be given to others.
2. The smaller the amount of a resource possessed by a person, the more he/she is likely to take it away from others.
3. The nearer two resources are (in the structure), the more likely they are to be exchanged with one another.
4. The nearer to love a resource is, the more likely it is to be exchanged with same resource. Love is exchanged for love, money is rarely exchanged with money.
5. The nearer to love a resource is, the narrower the range of resources with which it is likely to be exchanged.
6. For resources closer to money, the amount lost by the giver tends to approach the amount gained by the receiver (so that one's gain is the other's loss).
7. When a resource is not available for exchange, it is more likely to be substituted by a less particularistic than by a more particularistic one.
8. The simultaneous transmission of love and another resource increases the value of this other resource, or facilitates its transmission.
9. Taking away any resource (other than love) produces a loss of love.

10. The optimal range (neither too little nor too much) of a resource is narrowest for love, and increases progressively for resources closer to money.
11. In absence of exchange, the decrease in amount of love possessed decreases, and is greater for resources closer to love.
12. Other conditions being equal, the probability of occurrence of a given exchange is contingent upon the institutional setting in which it may take place. The probability of love exchange is higher in small groups. The opposite is true for money.

Exchange Outcomes and Environmental Conditions

According to Foa and Foa (1980), resource classes vary with respect to their exchange outcomes, as well as to the environmental conditions that facilitate or hinder their exchange. They described characteristics that change according to the position of each class on the particularistic dimension -- time for processing input, delay of reward, and optimum group size.

The time for processing input is described by Foa and Foa (1980) as environment providing an overload of stimuli; those resources that require a longer processing time are more likely to receive low priority. Such selection will favor the less particularistic resources. Foa and Foa (1980) found support for the thought that time available is a significant factor in love exchanges but not in monetary transactions. Giving and receiving love cannot be done in a hurry; it requires time. Money, to the contrary, can change hands very rapidly.

Foa and Foa (1976) argued that a delay of reward occurs in an environment where encounters are with friends or intimates and are repetitive; the more particularistic the resource, the more likely the exchange will be completed. In an environment where most encounters are with strangers and are non-repetitive, the less particularistic the resource, the more likely it is to be an object of exchange. The types of environment in which the exchanges take place have an impact on exchange and the delay of reward is an option.

Foa and Foa (1976, 1980) indicated that exchanges of particularistic resources are more likely to occur in a small group than in a large one. By contrast, economic transactions appear to be facilitated by larger groups. It can be concluded that in an environment of large size groups, non-particularistic resources will be exchanged more than particularistic ones. The optimal group size for an orderly exchange of resources may vary with the resource class, being smallest for love and largest for money. Latane and Darley (1969) found that the larger the number of bystanders, the less likely it is that any one of them will intervene in an emergency situation.

Exchange Outcomes and Motivational State of Persons

Completion of exchange also depends upon the motivational states of the persons involved (Rettig and Bubolz, 1983). Foa and Foa (1976) identified six properties that influence the balance of resources after the exchange has taken place: the relationship between self and other, the relationship between giving and taking, verbalization of need, reciprocation in kind, range of exchange, and the relationship between interpersonal setting and exchange.

The relationship between self and other proposed by Foa and Foa (1976) shows the relationship between the amount of resource given to the other and the amount left to self is positive for love and that it decreases and becomes negative as one moves along the structure toward money. Giving to another will sometimes result in a gain for the person who gives and at other times will cause a loss to him, depending on which resource is transferred. The relationship between giving and taking suggests that the joint occurrence of giving and taking away will follow the circular structure of resources, being highest for love and lowest for money. It appears then that different resources do not follow the same rules of exchange. The unity of the system is, however, preserved by the fact that these rules change gradually along the structure and that they are similar for proximal resources.

Foa and Foa (1976) described verbalization of need. Money is the easiest need to express, and the most difficult is the need for love. They also defined reciprocation in kind as the more particularistic a resource, the higher the probability that it will be exchanged for the same resource, while non-particularistic resources will tend to be exchanged for different ones. The closer two classes are in the structure, the more similar are the preferences for them.

Range of exchange refers to the number of resources with which a given resource may be exchanged. The more particularistic a resource is, the narrower is the range of resources with which it can be exchanged. The theory proposes that for each resource class there is an optimal range. When the amount of a given resource is within the range, the person feels comfortable and is not motivated to initiate change; but when the amount is below the lower bound of the range, one will be motivated to increase the amount of the resource. The width of the optimal range varies with the structural position of the resource and is narrowest for love and widest for money (Rettig and Bubolz, 1983).

The relationship between interpersonal setting and the resource to be exchanged influences the outcome of the exchange and, in turn, is influenced by the environment or, more precisely, by the level of technology. This property mediates between the motivational states of the individual and his/her environment. Money, for example, does not require an interpersonal relationship in order to be transmitted or kept for future exchanges, and it can be sent conveniently through a third person. Love, on the other hand, can hardly be separated from the interpersonal situation, kept for a long time in the absence of actual exchange, or transmitted by an intermediary without incurring a loss (Foa and Foa, 1980).

Exchange Outcomes and Social Institutions

The social institution in which it takes place is a factor which seems to affect the exchange (Foa, 1971). An institution provides a setting for exchanging certain resources while, at the same time, barring other exchanges. This arrangement facilitates transactions by directing the individual to the institution where the resource he/she needs can be exchanged with the resource he/she has to offer. It creates, on the other hand, difficulties for the person who does not have access to the appropriate institutions and who tries to perform the exchange in an inappropriate one. Institutions can make exchanges easier and more predictable.

Each social institution can be characterized both by specific exchange patterns and by a typical profile of the overall frequencies of the resources exchanged according to Foa and Foa (1971). Resources suitable for one institution may be scarcely used in another institution (Foa and Donnenwerth, 1971) so that each institution may be characterized by its own profile (Turner, Foa, and Foa, 1971). Institutions provide both limitations and channels for resource exchange. An institutional setting may prevent a given transaction while facilitating another. Institutional setting, need-states of the individual, as well as the properties of the resource involved, all affect the likelihood of an exchange to occur. Once an exchange has taken place, it is pertinent to inquire how it influences the participants' satisfaction and willingness to enter further transactions (Foa and Foa, 1974).

Applications of Resource Exchange Theory

Resource Exchange Theory studies have primarily been confined to explorations of family, friendship, intimates, marriage, and culture (Berg and McQuinn, 1986; Berg, Piner, and Frank, 1993). Two other areas examined in relationship with Resource Exchange Theory are marketing and organizations. The following discussion shows how Foa and Foa's (1974) Resource Exchange Theory has been generally applied to these areas.

Family

Using comparable groups of delinquent and non-delinquent girls, Donnenwerth, Teichman, and Foa (1973) tested Foa and Foa's (1974) Resource Exchange Theory by analyzing intercorrelations of the girls' perception of their own and their parents' behavior. The test generally supported the theory.

The application of Resource Exchange Theory to family relationships, particularly the relationships between children and parents, is the focus of a study by Teichman and Foa (1979). The results suggest that the child, while in need of a particularistic resource, tries to substitute it with a non-particularistic one -- goods. Since these two resources are different in nature, and relatively distal from each other, their substitution value is low. Consequently, the child remains unsatisfied, and the demanding pattern recurs. Resource Exchange Theory also follows a pattern. Rettig, Danes, and Bauer (1991) described how Resource Exchange Theory can be used to evaluate family life and its relationship to stress. The scale used in this study included items representing love, status, services, information, goods, and money received from the family. People experiencing economic stress due to a farm crisis evaluated the degree to which the receipt of these resources satisfied personal needs for love and affection, respect and esteem, comfort and assistance, shared meaning, personal things, and money for personal use. Results showed that Resource Exchange Theory can be used to evaluate the degree to which the receipt of these resources satisfy personal needs and help in reducing stress levels.

Friendship

Exchanges of particularistic resources are more common between close friends than between casual friends (Foa and Foa, 1980). They suggested that this is due to the fact that exchanges of such resources require a longer time to be completed. To explore the concept of friendship, Tornblom and Fredholm (1984) had fifty-three female nursing students respond to questionnaires featuring three vignettes involving two males giving each other resources of the same resource class (e.g., status/status or money/money) or of different resource classes (e.g., status/goods). Subjects read about exchanges of resources in each of the six resource classes and rated the degree of friendship between the two people involved in the exchange. As predicted, exchanges of love and services led to perceptions of a greater degree of friendship than did exchanges of goods, money, or information. In contrast to predictions, exchanges of status led to perceptions of a lesser degree of friendship. Exchanges of more particularistic resources are more closely associated with close friendship. Walster, Walster, and Berscheid (1978) made a similar point, noting that casuals relationships do not last long enough to work out any very complicated or troublesome exchanges. These authors suggested that their exchanges are focused primarily on non-particularistic and concrete resources. Lloyd, Cate, and Henton's (1982) finding that receipt of love was most related to satisfaction for intimately involved subjects supports the conclusions of the research by Tornblom and Fredholm (1984) and Lloyd, Cate, and Henton (1982).

Resource Exchange Theory may be useful for explaining the pattern of exchanges in self-disclosure research among friends. Interactions involving self-disclosures may be viewed as an exchange of different resources rather than as simple reciprocity of the same resource (Brinberg and Castell, 1982). A 1993 study by the same authors examined the effects of different role relations (friend, acquaintance, and stranger) might have on the exchange of resources. The authors concluded that resource availability (scarcity) might account for asymmetry in the exchange of resources (Brinberg and Castell, 1993).

Outside observers' judgments of the influence of the nature and similarity of transacted resources on the growth of new and old friendships has also been tested. Tornblom, Fredholm, and Jonsson (1987) developed and tested a number of hypotheses in a questionnaire study in which female subjects responded to vignettes describing exchanges between two male friends. A new friendship grew when similar particularistic rather than similar universalistic or dissimilar resources were exchanged. The results indicated few corresponding differences for an old friendship. Also, the exchange of similar particularistic resources, as well as the exchange of dissimilar resources, were seen as more conducive to the growth of a new rather than of an old friendship. The exchange of similar universalistic resources was seen to affect new and old friendships about the same. Overall, the nature of resources transacted, was the most important cue in subjects' predictions about the development of friendship. In a similar study, Shea, Thompson, and Bliezner (1988) investigated the exchange of resources in old and new friendships with twenty-seven adults (aged 55-86 years) who had recently relocated to a retirement community. Quantitative measures were used to document specific short-term changes in resource exchange (love, status, information, and services). Open-ended interviews were used to tap the subject's views of the importance of resource exchange in developing and maintaining friendships, the role of each resource in each friendship, and the differences between old and new friendships. Results indicated that old friendships remained stable in resource exchange and affection, while newly developing friendships increased in both dimensions.

Beach and Carter (1976) experimented by presenting subjects with the description of a social debt incurred by themselves or by a friend. Subjects were then requested to rank resource classes in order of appropriateness for repayment of the debt. In another experiment, subjects rated the social debt worth and determined for each class of resources the amount that would constitute equitable repayment of the debt. The results showed that the proposed circular configuration proposed by Foa and Foa's (1974) Resource Exchange Theory was supported for the perceived appropriateness of repayment, for the amount to be repaid to a friend or to be expected in repayment as well as for the change in amount of repayment from resource to resource.

Haslam (1995) examined the structure of 500 social relationships from fifty undergraduates using items representing exchanges proposed by Foa and Foa (1974). The results offered limited support for the circumplex ordering proposed by Foa and Foa. Bliesszner (1993) utilized Foa's six resource classes to examine exchanges taking place within close and casual relationships among older women (mean age 71 years). The author assessed the impact of these exchanges on the women's subjective well-being and satisfaction with life. Support was found for the exchanges proposed by Foa and Foa. Resource Exchange Theory and Social Exchange Theory was applied by Sletta (1992) in a study of skills deficits in children and adolescents who lacked friends and other positive peer contacts. The author concluded that a broad or integrating theoretical framework for the analysis of social skills remains to be developed.

Intimate

In a longitudinal study of thirty-eight dating couples, Berg and McQuinn (1986) applied Foa and Foa's (1974) classification system to both the giving and the receipt of specific resources. The study examined both positive and negative exchange. Those couples who developed closer relationships were found to exchange more particularistic and more symbolic resources (at least for positive resources). Cate (1981) employed Resource Exchange Theory, as well as Social Exchange Theory, to aid couples in enhancing their relationship. The Interpersonal Resource Exchange Program, based partially upon the work of Foa and Foa (1974) was used to examine and improve interpersonal relationships of couples. In casual relationships, persons generally exchange only a few types of resources, although intimates probably exchange resources from all six classes (Hatfield, Utne, and Traupmann, 1979). In addition, intimates may work out exchanges that are not typically accepted in everyday social relationships. The authors offered an example of a husband who might be able to repay his wife's increased sexual interest in him by deferring to her desire for a vacation (status), repairing something that has long been in need of repair (service), or buying her a gift (goods). A wife may reward her husband's increased willingness to converse with her (information) by telling him how much she loves him (love) or by being especially frugal in the management of the family budget (money). The authors suggested that it may be that successful relationships involve an ability of the partners to negotiate successful exchanges in all resource categories.

L'Abate and Hewitt (1988) presented a classification of sexual behaviors based on Foa and Foa's Resource Exchange Theory. The authors expanded and applied this theory to sexual behavior through three modes: doing (information and services), having (possessions and money), and being (love and status). L'Abate and Harel (1993) described how Resource Exchange Theory is used to explicate a model concerned with developmental and interpersonal competence. The authors introduced Foa's resource categories of status, love, information, and services and used the framework to classify sex, sexuality, and addictions.

Earlier studies (Clark, 1981; Tornblom and Fredholm, 1984; Tornblom, Fredholm, and Jonsson, 1987) showed that the existence of friendship was attributed on the basis of both similarity (comparability) and dissimilarity (non-comparability) of resources exchanged. Several authors have proposed that acquaintances typically exchange similar resources, while intimates are more at liberty to exchange dissimilar ones (Clark and Mills, 1979; Hatfield, Utne, and Traupmann, 1979; Holmes, 1981; Walster, Walster, and Berscheid, 1978).

Marriage

Rettig (1980) presented results which supported the validity of Foa and Foa's (1974) Resource Exchange Theory both in terms of the six distinct classes and also creditability of the theory for predicting marriage evaluation for men and women. The purpose of the study was to explore validity of Foa and Foa's Resource Exchange Theory and measured indicators of the model, select the best set of indicators to predict marriage evaluation for women and men, investigate credibility of the Foa theory in predicting marriage evaluation for women and men and investigate the contribution of each interpersonal resource (love, status, services, information) and shared time to the prediction of marriage evaluation for women and men, describe differences in evaluations of marriage, family life, and life as a whole for women and men. Self-administered questionnaires were used to collect data. The study sample consisted of 224 husband-wife couples living in the same household with at least one school-age child. Respondents evaluated their overall quality of life, quality of family life, and marriage. Information was obtained concerning evaluations of love, status, services and information resources received in the family, and shared time; perceived frequency of resource transfers from mate for each resource class, and perceived frequency of shared time with mate in five compassionate activities. The results of the study also supported the structured relationships among resource classes and for the order of classes in predicting satisfaction.

An earlier experiment tested Foa and Foa's (1974) Resource Exchange Theory in predicting satisfaction with marriage using self-administered questionnaires from 224 husband-wife couples (Rettig and Bubolz, 1983). The subjects provided information concerning feelings about perceived quality of marriage, resources received from spouse, and shared time. The order of resource classes on the particularism dimension would correspond to the order of their effectiveness in contributing to marital satisfaction according to their hypothesis. Results provided evidence of the structured relationships among resource classes and indicated that Foa and Foa's theory was effective in explaining the variance in marital satisfaction, particularly for women, in terms of the exchange of affection, recognition and respect, companionship, and shared meaning. Results also support previous research indicating that husbands and wives emphasize instrumental and affectional aspects of the relationship and that the various aspects of marital satisfaction are positively inter-correlated. The study also indicated that all six resource classes in the context of shared time contributed to explanation of marital satisfaction. The authors concluded that the theory can serve as a guide in future research to insure that the important dimensions (resources-needs) of the marital relationship are included. The study was planned as a first stage of data analysis, primarily to test the usefulness of Resource Exchange Theory in explaining marital quality. Rettig and Bubolz (1983) also gathered data from 300 females to test Resource Exchange Theory in predicting satisfaction with exchanges. Data was obtained by survey using self-administered questionnaires. The results also tended to support Foa's framework.

Data on over 100 non-industrial societies were employed to test the hypotheses that wives have more power in marriage in societies with nuclear rather than extended family structures (Warner, Lee, and Lee, 1986). Hypotheses were supported. These findings, interpreted in the context of Resource Exchange Theory, highlight the fact that organizational resources may be at least as important as material resources in the determination of conjugal power structures. In attempting to test Foa and Foa's (1974) Resource Exchange Theory, Archer (1976) attempted to test the hypothesis that the negative impact of stress on marital quality and subsequent survival would be a function of the saliency of the deprived resource for the marital partners. Scanzoni (1979) concluded that Resource Exchange Theory is a special application of exchange theory to the domain of marital power and relationships.

Gaines (1994a) hypothesized that gender friendships are characterized primarily by behavioral exchanges involving respect but not affection (i.e., correlations between men's and women's behaviors would reach significance only for respect related behavior). Sixty-two pairs of male-female pairs completed a twelve-item version of the Role Behavior Test. No consistent pattern emerged regarding reciprocity of affection. A clear pattern of reciprocity of respect-related exchange did emerge. Comparisons with sixty-two male-male and sixty-five female-female friendships indicated that only among the male-female pairs did any consistent pattern of resource exchange occur.

Gaines (1994b, 1997) proposed a model of African-American couples' reciprocity of affection and respect using Resource Exchange Theory as discussed by U. G. Foa and E. B. Foa (1974). The author analyzed the cultural value among African-Americans and a stereotyped model of African-American resource exchange. The model shows a great potential for explaining individual differences in African-American husbands' and wives' affectionate and respectful behavior (Gaines, 1994b; 1997).

<u>Culture</u>

Foa, Salcedo, Tornblom, Garner, Glaubman, and Teichman, (1987) conducted research on the interrelationship among interpersonal resources in five cultures: Israel, the United States, the Philippines, Sweden, and Spanish-speaking Mexican Americans. In spite of differences in language, instrument format, and age of subjects, the results supported the pattern previously hypothesized on theoretical grounds. The results support the notion that interrelationship of resources may be cross-culturally invariant. Tornblom, Jonsson, and Foa (1985) attempted to contribute to existing knowledge about

Resource Exchange Theory and the factors that influence people's choices among allocation rules in the distribution of resources. The study employed a design where the independent variables were nationality (American and Swedish) and resource class (love, status, information, money, goods, and services), and the dependent variable was preference for allocation rule (equality, equity, and need). Swedish and American subjects read a description of fictitious situations and indicated on a five-point scale how favorable they were to resource allocation according to each of the three rules. This study concluded preferences for rules of resource allocation vary with resource class and across cultures. However, Foa, Converse, Tornblom, and Foa (1993) presented overwhelming empirical evidence of the cross-cultural validity of Resource Exchange Theory.

Foa and Krieger (1985) examined the perceived need for interpersonal resources (status, love, services, goods, money and information) in two studies. In the first study drug addicts, prostitutes, alcoholics, and motorcycle racers were compared with a control group drawn from the general population. In the second investigation outpatients with medical complaints, alcoholic inpatients and drug addict outpatients all treated at a VA hospital were compared with a control group of males drawn from the general population. Both studies showed significant differences among the groups in their expressed need for status, love, services and information. In the need for goods or money, no major differences were found. In a survey of a cross-sectional sample of university alumni Walbridge (1984) found results that were theoretically consistent with and supported the application of Foa and Foa's (1974) Resource Exchange Theory in the study of men in marital relationships.

In a study by Stangl (1989) a questionnaire was administered to a stratified sample of 447 subjects for the testing of various structural propositions of Resource Exchange Theory. In general, the results supported the predicted theoretical order of resource preferences. Adamopoulos (1984) investigated the structure of social behavior across cultures and concluded that researchers have relied either on an empirical approach or on the conceptualization of interactions such as resource exchange as proposed by Foa and Foa (1974). The author reviewed attempts to integrate the two approaches and proposed an alternative framework that considers interpersonal dimensions as emerging from the fundamental structure of resource exchange. Two studies tested the model. In study one, eight U.S. and eight Greek highly educated subjects judged thirty-five behaviors with known interpersonal attributes according to the extent to which they involved giving or denying the six resource classes identified by Foa and Foa. In study two, an alternative methodology, requiring much less linguistic and cultural sophistication from the subjects (thirty-five U.S. university students), was used in an intercultural test of the fundamental assumptions of the proposed framework. Social episodes reflecting either particular resource exchanges or behavioral features were sorted into different groups according to their similarity. The results concluded that the proposed framework allows the study of the manner in which sociocultural variables affect the structure of social behavior.

Marketing

In a study of sixty-four subjects, Brinberg and Wood (1983) used Foa and Foa's (1974) Resource Exchange Theory to describe marketing as an exchange process. They examined the structure underlying six resource categories that is, love, status, information, money, goods, and services; and the functional relations among these six resource categories that is, the patterns of exchange. The economic concept of resource constraint (scarcity) was also incorporated into the exchange process. Results were consistent with both the structural and functional relations derived from exchange theory. Resource scarcity affected the types of resources an individual was likely to give in an exchange, was used to describe marketing as an exchange process, and overall support was found for both the structural and functional relations in Foa and Foa's theory. Two underlying dimensions were found in the results. One was characterized as both personal or impersonal and abundant or scarce, whereas the second dimension was characterized as concrete or abstract. These functional relations among the resources were consistent with Foa's theory: resources perceived to be in the same or proximal categories were more likely to be exchanged than resources in more distal categories. Support was found for the hypothesized two-dimensional solution underlying the resource categories. In addition, support was found for the hypothesized functional relations among the resources. Resources perceived to be in the same or proximal resource categories were more likely to be exchanged than were resources in more distal categories, and resource scarcity was found to affect the types of resources an individual was likely to give in an exchange.

Consumer psychologists may find Resource Exchange Theory useful to describe the myriad number of resources exchanged among consumers (Brinberg and Castell, 1982). The authors offered the example that consumers will often exchange money for some type of goods or services, and they concluded that it would be useful in understanding these types of exchanges systematically to examine the relations among different types of resources. By using Foa's theory of resource exchange, researchers may begin to expand the area of interpersonal bargaining and coalition research to include the effects of exchanging different types of resources on the bargaining process as well as on the formation of various coalitions. Brinberg and Ganesan (1993) described how Resource Exchange Theory can be applied to promote a product, service or social issue. In a study of 200 middle-class, suburban adults, Miller (1980) employed Resource Exchange Theory in the act of giving resources to charitable organizations. This study is derived from the study of charitable behavior and exchange theory. The research examines the donation of various resources to charitable organizations, thus concluding that Resource Exchange Theory may be applied as an explanation for economic resources. The author concluded that non-economic resources may be exchanged for economic resources. Thus, a charity engages in exchanges without necessarily depleting its economic resource base. The exchange of prestige or information for the donation of money illustrates the non-economic/economic resource transaction.

Organizations

In Resource Exchange Theory, organizations are no longer cogs in smoothly functioning systems (Kleyn, 1989). Rather, they are collections of individuals acting in their own self-interest and operating in systems consisting of other self-interested actors. Interests of individual members and organizational interests are not necessarily identical. Instead, "dominant coalitions" develop within the organization, producing definitions of the organization's purpose and with them, its interests (Pfeffer and Salancik, 1978).

The concept of stakeholders also relates to the idea of coalitions. According to Simon (1947) and March and Simon (1958), organizations are systems of give and take relationships among participants, sometimes called stakeholders, who contribute necessary resources with the expectation of receiving valued outcomes (Freeman, 1984; Pfeffer and Salancik, 1978; Ulrich and Barney, 1984; Griesinger, 1990). The contributions of these stakeholders are the resources from which inducements for participation are generated. From this perspective, organizations can be distinguished by their stakeholders (e.g., employees, customers, suppliers, and investors for a retail business; teachers, administrators, students/parents, and benefactors for a private school). Unless the inducements offered to each stakeholder compare favorably with inducements offered by other organizations, the survival of the organization is at risk (Griesinger, 1990).

In a study of four-year colleges and universities, Kleyn (1989) used Resource Exchange Theory to determine the characteristics of legitimate organizations. Looking at the consequences of illegitimacy, several authors (Levine and White, 1960; Thompson, 1967) have taken an extreme "survivalist" position, arguing that resource exchange rests on prior consensus that what an organization has to offer is socially desirable. If an organization is unable to exchange with others, it will not receive the resources it needs. And without critical resources, the organization will fail to survive (Levine and White, 1960; Thompson, 1967).

Work Place

Berg and Wiebe (1986) claimed that if one examined the situations in which one spent time each day, most people would find that a large amount is spent working. A traditional economic view of work and the exchanges that occur here might hold that all that is involved is workers exchanging their services (time and labor) for money (wages). Berg and Wiebe (1986) believed that the work setting is one in which exchanges of many different types of resources occur. A worker may gain status and praise for a job well done while others at the job site may provide him/her with knowledge or friendship. For many years, organizational psychologists (e.g. Blake and Mouton, 1964; Likert, 1967; McGregor, 1960) have held that work is an activity in which people receive rewards of many kinds (including the work itself) and even that money may not be the most important reward.

Different types of work situations and different types of work can be expected to affect the types and amounts of various resources workers are likely to receive (Berg and Wiebe, 1986). For example, if the job is one in which work is done in solitude (e.g. night watchman) there will be few opportunities for receiving interpersonal benefits. Different jobs will vary in the status they provide to those who perform them, and the organizational climate and the management techniques employed can also make exchanges of different resources more or less likely. Finally, the individual characteristics of the workers themselves may affect their tendency to engage in different types of exchanges and the value they place on different types of resources (Berg and Wiebe, 1986).

The 1986 study discussed above represents an initial attempt to expand and apply Resource Exchange Theory to the world of work and to quality circle programs (Berg and Wiebe, 1986). In an attempt to extend the range of situations in which Resource Exchange Theory has been applied, the study examined workers employed in two plants of a mid-south firm that produces a product used in the construction of buildings. Work performed at the two sites differed, allowing the effect of different work environments on resource exchange to begin to be examined. In addition, information on the effects of a currently popular management technique -- quality circles -- was investigated. The authors were able to study the affect of a rather new management technique on the frequency with which various exchanges occur.

A sizeable minority of respondents in the studies by Berg and Wiebe (1986, 1989) reported exchanging resources in their jobs that involved status, information, love, and benefits unique to their particular employment. The authors grouped the benefits that were unique to the subject's employment into a variable they labeled "work itself". They defined work itself as activities that are peculiar to the place of work, its environment, the job, task or position. The authors concluded that much research was needed to determine where the new category would fit in the circumplex proposed by Foa and Foa (1974). The studies by Berg and Wiebe (1986, 1989) led to the development of the Berg/Wiebe Resource Exchange Scale.

Perhaps the reason Resource Exchange Theory has not been previously applied to exchanges occurring in the work place may come from the fact that the world of work is traditionally viewed as involving only a few types of exchange (Berg and Wiebe, 1989).

A worker is traditionally viewed as "giving" time and effort (services) in order to "receive" wages (money). While exchanges like this will certainly comprise a large amount of those that occur in the work place, Berg and Wiebe (1989) believed that the resources workers give are not limited to "services" and that the resources they receive include more than "money". Scholars who study organizations have long proposed that workers wish to and are capable of contributing numerous other things in addition to their time and that they receive other resources besides just money (Berg and Wiebe, 1989).

A number of things about the resources that are exchanged in the work place indicate the utility of Resource Exchange Theory for understanding these exchanges (Berg and Wiebe, 1989). First the modal exchange that occurs in the job is that expected from a traditional view of work (money for services), the authors concluded that exchanges in the work place are not limited to these "economic" ones. A sizable minority of the respondents reported exchanging resources in their jobs that involved status, information, love, and benefits unique to their particular employment. This is consistent with the hypothesis that exchanges in the work place will involve "social" as well as "economic" benefits and with more "humanistic" views concerning the nature of work.

Exchanges in the work place include numerous things besides workers giving their time and effort in return for wages (Berg and Wiebe, 1989). Many exchanges involved more "social" resources (e.g. information, status, positive affect or benefits that were unique to an employee's particular job). Quality circle members were found to both receive and give more resources than were nonmembers, and often the differences were in terms of social benefits. Exchange within quality circles themselves involved members primarily giving and receiving information suggesting that any effects quality circle programs have on productivity or worker satisfaction are mediated by their effect on information. These results indicate the utility Resource Exchange Theory can have in applications to the world of work (Berg and Wiebe, 1989).

Resource Exchange Theory was developed and has been applied within the domain of interpersonal relations (Foa and Foa, 1974; 1976). Berg and Wiebe (1986, 1989, 1993) argued that Resource Exchange Theory may represent a valuable conceptual and analytic tool when applied to work. Resource Exchange Theory proved quite capable for describing the variety of benefits workers receive and give in their work and in quality circles. The theory appears capable of detecting differences that arise from differences in the personalities of workers or in work environments.

Reliability and validity of instruments are crucial to any research and conclusions resulting from research. Berg and Wiebe (1986, 1989) failed to evaluate the reliability and validity of their instrument . Johnson (1995) claimed that research devoted to the analysis of the type of resources exchanged at the work place has been very limited and fragmented. The author suggested that presently little is known of the various resources that are exchanged at the work place and the effects these exchanges have on the productivity, efficiency, and effectiveness of employees. Additionally, no framework has been systematically applied to investigate and explain the exchange of resources at the work place. The evaluation of these exchanges and the level of satisfaction associated with the exchanges served as the basis of a study of 105 manufacturing employees conducted by Johnson (1995). The study investigated two issues to determine if the Berg/Wiebe

Resource Exchange Scale (Berg and Wiebe, 1986; 1989) measures some of the same concepts reported in previous research concerning Foa and Foa's (1974) Resource Exchange Theory. The level of satisfaction with resource exchanges based on proximity and the level of satisfaction with particular types of resources (intrinsic/extrinsic) were examined. Data was obtained from the administration of the Berg/Wiebe Resource Exchange Scale. The scale was developed on the basis of Resource Exchange Theory as presented by Foa and Foa (1974) and represents an initial attempt to measure the exchange of numerous resources at the work place and the level of satisfaction with these exchanges. Statistical procedures were employed to evaluate the hypotheses concerning the level of satisfaction with resources based on proximity and the level of satisfaction based on types of resources (intrinsic/extrinsic) exchanged and to evaluate the reliability and validity of the Berg/Wiebe Resource Exchange Scale. Results indicated that the Berg/Wiebe Resource Exchange Scale is a reliable and valid instrument for measuring the exchange of resources in the work place and the level of satisfaction with these exchanges. However, no support was found for the hypothesis that resources closer in proximity would have a higher level of satisfaction than those resources further apart in proximity. Little support was found for the hypothesis that the level of satisfaction for intrinsic resources would be significantly greater than the level of satisfaction for the extrinsic resource. Results of the study also indicated that results obtained from administration of the scale should not be affected by the variables of gender, race, marital status, education, and age.

Limitations of Resource Exchange Theory

Resource Exchange Theory is unable to handle relationship variables that have been found to be important determinants of marital quality and that require observational methods of data collection: control, dominance, potency, activity, tension and tempo (Rettig and Bubolz, 1983). An additional limitation to the utility of Resource Exchange Theory involves the fact that previous investigations of the model it proposes have been confined to explorations of interpersonal attraction, friendship and romantic relationships (Berg and Wiebe, 1986). In such relationships, the most salient and frequent exchanges are likely to involve particularistic and symbolic benefits. Berg and McQuinn's (1986) study noted above is consistent with such a view. However, while a very important aspect of life, friendships and romantic relationships are not the only circumstances in which exchange occurs (Berg and Wiebe, 1986). Berg and Wiebe (1986, 1989, 1993) and Johnson (1995) claimed that research devoted to the analysis of the type of resources exchanged at the work place has been very limited and fragmented. The authors suggested that the work place is a proper setting for the use of Resource Exchange Theory to investigate the various resources that are exchanged in the work place and the effects these exchanges have on the productivity, efficiency, and effectiveness of employees.

The vast majority of studies exploring Resource Exchange Theory have employed either observers who read about exchanges of various resources and indicated their perceptions of them and/or their preference for giving or receiving a particular type of resource (e.g. Brinberg and Castell, 1982; Foa and Foa, 1976; Tornblom and Fredholm, 1984; Tornblom, Fredholm, and Jonsson, 1987). A few studies have manipulated the type of resource subjects received from another or were able to give to another (e.g. Teichman and Foa, 1975; Foa and Foa, 1976). Observers' perceptions or evaluations of exchanges and experimental manipulations of the resource a person receives are valuable, but by themselves, they cannot provide a sufficient basis for evaluating the utility of Resource Exchange Theory (Berg and Wiebe, 1986).

Miller (1980) summarized some major points included in Resource Exchange Theory. According to Miller, a relatively invariant cognitive structure of six resource types exists for a particular culture. The likelihood of exchange depends on the resources offered in the exchange, the institutional setting, the need states of individuals, and their stock of resources. Resources proximal in the structure engender similar perceptions of exchange and are considered appropriate and more likely to be exchanged. Resources distal in the structure are not considered similar, and exchanges of these are less likely to take place. The institutional setting provides a setting for exchanges and often defines which pairs are more likely to take place.

Triandis and his associates describe some very useful constructs that will be utilized in this dissertation to determine if individuals perceive themselves as performing their jobs in a collectivistic environment of "naturally occurring work groups or in a more individualistic environment as individuals. The Individualism-Collectivism Scale developed by Triandis (1995) will be utilized with the Berg/Wiebe Resource Exchange Scale in an attempt to establish domains as described by Deutsch (1975) for these exchanges in the work place. A brief explanation of these constructs and their development is presented in the next section.

Individualism-Collectivism

Individualism-collectivism constructs have been popular in most of the social sciences for about a century. Most of the research on these areas has been at the cultural level. Systematic work at the individual level was begun by Hofstede (1980) in an examination of the responses of IBM employees in sixty-six countries and by Bond (1988) in an investigation of the values of college students in twenty-one countries. Both authors found similar factor-analytic results. Hofstede's (1980) study was replicated in the results of a 1986 study of fifteen samples from different parts of the world (Triandis, Bontempo, Bond, Leung, Brenes, Georgas, Hui, Marin, Setiadi, Sinha, Verma, Spangenberg, Touzard, and de Montmollin, 1986). One dimension identified in these factor studies was individualism-collectivism. The concept of individualism-collectivism defined by Triandis and his associates was developed in a series of articles (Hui and Triandis, 1986; Triandis, Leung, Villareal and Clack, 1985; Triandis, Bontempo, Villareal, Asai, and Lucca, 1988).

Research on the constructs of individualism-collectivism has mainly been through the use of attitude items (e.g., Hui, 1988; Hui and Triandis, 1986; Triandis, Bontempo, Villareal, Asai, and Lucca, 1988). The theory was developed in a series of articles (Hui and Triandis, 1986; Triandis, Leung, Villareal and Clack, 1985; Triandis, Bontempo, Villareal, Asai, and Lucca, 1988). The defining attributes of individualism and collectivism are suggested in Triandis (1995) and Singelis, Triandis, Bhawuk, and Gelfand (1995) as follows:

1. Collectivists define themselves as parts or aspects of a group; individualists focus on self-concepts that are autonomous from groups. Thus the contrast between interdependent and independent selves (Markus and Kitayama, 1991) is one of the defining attributes.
2. Collectivists have personal goals that overlap with the goals of their in-groups, and if there is a discrepancy between the two sets of goals, they consider it obvious that the group goals should have priority over their personal goals. Individualists have personal goals that may or may not overlap with the goals of their in-group, and if there is a discrepancy between the two sets of goals, they consider it obvious that their personal goals
3. Among collectivists, social behavior is best predicted from norms and perceived duties and obligations (Miller, 1994). Among individualists, social behavior is best predicted from attitudes and other such internal processes as well as contracts made by the individual.
4. Among collectivists, relationships are of the greatest importance, and even if the costs are of these relationships exceed the benefits, individuals tend to stay with the relationship. Among individualists, when the costs exceed the benefits, the relationship is often dropped (Kim, Triandis, Kagitcibasi, and Yoon, 1994).

Triandis (1996) claimed that individualism is high in affluent societies, in which individuals can decide without consultation with in-group members about how to use their resources. Collectivism is high in societies in which collectives decide how to dispense resources. Triandis (1996) concluded that individualists are higher than collectivists in self-esteem and self-efficacy, and use internal states (e.g., emotions) as means of appraising situations, where as collectivists use inputs from in-groups to appraise situations (Oettingen, 1995; Oettingen, Little, Lindenberger, and Baltes, 1994). Whereas individualists explicitly enhance their self-esteem, collectivists do so implicitly (Kitayama and Kanazawa, 1995).

The constructs defined by Triandis and his associates should be useful in this study for determining whether individuals perceive themselves as collectivistic or individualistic in the performance of their jobs in the work place.

Summary

Three theories that provide the basis of this dissertation were reviewed in terms of the available empirical and conceptual literature. Generally, the literature reviewed supports the hypotheses of the current study concerning the employment of the Berg/Wiebe Resource Exchange Scale to measure the exchange of resources in the work place and the satisfaction with those exchanges as perceived by subjects grouped according to their responses on the Individualism-Collectivism Scale developed by Triandis (1995). Chapter III presents the proposed formal hypotheses and the underlying rationale for each.

CHAPTER III

HYPOTHESES

This chapter provides an explanation of the hypotheses that were developed for this dissertation from the literature on social exchange. The hypotheses examined issues concerning the exchange of resources in the work place that have been studied in past research conducted by Berg and Wiebe (1989) and Johnson (1995) on Resource Exchange Theory developed by Foa and Foa (1974). Hypotheses were also presented that attempt to establish domains for these exchanges in the work place as described by Deutsch (1975).

Rationale for Hypotheses

Studies by Berg and Wiebe (1986, 1989) and Johnson (1995) are important and useful for understanding the application of Foa and Foa's (1974) Resource Exchange Theory to the exchanges of resources in the work place. Berg and Wiebe (1986) developed the Berg/Wiebe Resource Exchange Scale from the concepts of the research conducted by Foa and Foa (1974) in the area of resource exchange. Tests for reliability and validity of the scale were not performed until Johnson (1995), in a study of manufacturing workers, found the Berg/Wiebe Resource Exchange Scale to be a valid and reliable instrument for measuring the exchange of resources in the work place and the level of satisfaction with the exchanges. However, the results of Johnson's (1995) study failed to show that the Berg/Wiebe Resource Exchange Scale can be used to measure issues that have received much attention and support in past research concerning Resource Exchange Theory developed by Foa and Foa (1974).

Johnson (1995) concluded that several factors concerning the sample utilized in his study helped explain the failure of the results to support the hypotheses concerning the exchange of resources. The sample utilized by Johnson (1995) was comprised of all employees of a single manufacturing facility who were not randomly selected for inclusion. The sample also included mostly individuals who were employed in the same type of work or job responsibility, who were in the same age categories, and who had basically the same level of education. Johnson (1995) concluded that the homogeneous nature of the sample was not representative of employees in general and that the sample also limited the generalizability of the results of the study. Therefore, Johnson (1995) concluded that there might be doubts as to whether the Berg/Wiebe Resource Exchange Scale will yield similar results across many different type of work settings.

Although both studies by Berg and Wiebe (1986, 1989) and Johnson (1995) took place in industrial settings, the samples used by both groups had very different characteristics. Berg and Wiebe (1986) developed their scale to measure the exchange of resources in the work place utilizing a sample in which a large percentage of the individuals were members of "naturally occurring" work groups or teams. Johnson utilized the Berg/Wiebe Resource Exchange Scale in a sample of workers who were not members of any type of work group or team. Therefore, the failure of Johnson's (1995) study to find support for the hypotheses concerning Foa and Foa's (1974) Resource Exchange Theory may have been due to the fact that the sample was not appropriate for implementation of the Berg/Wiebe Resource Exchange Scale. Thus, the Berg/Wiebe Resource Exchange Scale could possibly be used more appropriately in a setting that contains employees who perceive themselves as being members of a team or group.

Examination of the Berg/Wiebe Resource Exchange Scale utilized in Johnson's (1995) study revealed a possible concern with the wording of the questions. Questions included the word "company" to represent the employer, and the word "you" was used to represent the person or employee in the exchange relationship. Using the word "company" in all of the exchange relationships on the scale could have led the respondents to believe that the exchanges taking place were only between the employer and themselves while the Berg/Wiebe Resource Exchange Scale was developed to measure the exchange of resources among members of work teams or groups. Thus, the employees in Johnson's (1995) study may have perceived the exchanges occurring in an employer-employee relationship similar to that described by Deutsch (1975), utilizing an "equity" approach in their responses. Berg and Wiebe (1986) argued that workers having a perception of this type of relationship would view the exchange from a pure economic view of work in which workers receive money in return for services. Deutsch (1975) concluded that individuals utilizing an equity approach to exchanges are not concerned with group harmony (Kim, Park, and Suzuki, 1990, Lansberg, 1984). The characteristics of jobs in many manufacturing facilities reflect many of the same characteristics such as economic, task and production-oriented, competitive, and impersonal described by Deutsch (1975) of individuals or groups that utilize the equity norm in their perception of exchanges. The sample utilized by Johnson (1995) was based in a manufacturing facility in the southern part of the United States. Johnson (1995) concluded that although the sample used in his study was not randomly drawn, that it was representative of this population.

The sample and the wording of the Berg/Wiebe Resource Exchange Scale utilized by Johnson (1995) may have led to the hypotheses concerning Foa and Foa's (1974) Resource Exchange Scale not being supported. The next section describes the development of the hypotheses in this study.

Hypotheses

This section draws together the research related to the satisfaction of the exchanges of resources found in Foa and Foa's (1974) Resource Exchange Theory and the application of the theory to the work place. Testable hypotheses were developed from the literature on social exchange to examine issues concerning the exchange of resources in the work place that have been studied in past research on Foa and Foa's (1974) Resource Exchange Theory by Berg and Wiebe (1989) and Johnson (1995). Hypotheses are also presented that expand the past research issues concerning resource exchange by attempting to establish domains for these exchanges in the work place as described by Deutsch (1975).

This dissertation addresses some of the concerns about the sample and the questionnaire utilized in Johnson's (1995) study. The sample examined in this study had similar characteristics to the samples utilized by Berg and Wiebe (1986, 1989) in which the Berg/Wiebe Resource Exchange Scale was developed. The Individualism-Collectivism scale was utilized to determine if the subjects perceived themselves as performing their jobs in "naturally occurring" work groups (i.e. collectivistic) or as performing their jobs in an individualistic manner (i.e. individualistic). The Berg/Wiebe Resource Exchange Scale was revised by taking out the word "company" in the questions to allow individuals in the sample to indicate their perceptions of the exchanges that occur in the work place.

Hypotheses 1 and 2 were based on the circumplex developed by Foa and Foa (1974) concerning Resource Exchange Theory. The circumplex was presented in Figure 1 in Chapter II of this dissertation. The Revised Berg/Wiebe Resource Exchange Scale was utilized to measure the satisfaction with the exchange of resources according to their proximity. Hypotheses 1 and 2 did not include the variable "work itself" found by Berg and Wiebe (1986, 1989) even though the scale measures the satisfaction of the exchanges of the variable. Berg and Wiebe could not determine where the new variable would appear on the circumplex.

For hypotheses 3, 4, 5, and 6, the Revised Berg/Wiebe Resource Exchange Scale was utilized to measure the exchange of items that represented intrinsic resources and extrinsic resources. Hypotheses 1, 3, and 5 tested the exchange of resources that have been examined in the literature concerning Foa and Foa's (1974) Resource Exchange Theory without consideration of the subjects' perceptions of whether they were performing their jobs as collectivistic or individualistic.

Hypotheses 2, 4, and 6 tested the same exchanges of resources that were tested in Hypothesis 1, 3, and 5 utilizing the Individualism-Collectivism Scale to attempt to establish domains for the exchange of the resources as predicted by Resource Exchange Theory. Responses to the Individualism-Collectivism Scale were combined with the employees' responses to the satisfaction of the exchange of resources in the work place indicated on the Revised Berg/Wiebe Resource Exchange Scale. This allowed for the application of the distributive justice norms of equality and equity described by Deutsch (1975) to be applied to the satisfaction of exchanges.

Hypothesis 1

The first hypothesis in this study explored the issue of the relationship between satisfaction and the proximity of resources found in the empirical literature on Foa and Foa's (1974) Resource Exchange Theory. The research reported by Foa (1971) claimed that resources close in proximity, that is similar, show a higher level of satisfaction than those resources that are farther apart in proximity. The researchers concluded that the closer the resources were in proximity, the higher the satisfaction with the exchange that took place. A number of studies (Brinberg and Wood, 1983; Donnenwerth and Foa, 1974; Foa and Foa, 1974; Teichman, 1971; Turner, Foa, and Foa, 1971) have confirmed the research by Foa (1971) by showing that in each class some of its elements will be nearer to one of the two neighboring classes than to the other and that resources proximal in the order are more likely to be preferred in an exchange. Foa and Foa (1980) and Teichman and Foa (1975) found that a dissimilar exchange would be less effective and less satisfying than one that involves suitable resources. Studies by (Clark, 1981; Clark and Mills, 1979; Hatfield, Utne, and Traupmann, 1979; Holmes, 1981; Walster, Walster and Berscheid, 1978; Tornblom and Fredholm, 1984; Tornblom, Fredholm, and Jonsson, 1987) found support for the greater satisfaction for the exchange of similar resources in friendships, intimates and acquaintances. In conclusion, the results of the research by Foa and others provide evidence that the level of satisfaction of individuals should be significantly higher for resources that are closer in proximity than those that are farther apart.

Leading to Hypothesis 1, which is

H1. Individuals will have a higher level of satisfaction for the exchange of resources that are closer in proximity than those resources that are further apart in proximity.

This hypothesis examined the issue concerning the level of satisfaction of individuals with the exchange of resources at the work place as it relates to proximity that has been included in a number of past studies concerning Foa and Foa's (1974) Resource Exchange Theory. Johnson (1995) found no support for this hypothesis possibly due to the factors cited earlier concerning the sample and the questionnaire utilized in his study. However, a vast amount of past research concerning resource exchange has indicated that a higher level of satisfaction will occur for resources that are similar.

Hypothesis 2

Some researchers have indicated that it would be appropriate to relate Deutsch's distributive justice norms to Foa and Foa's (1974) Resource Exchange Theory. Berg, Piner, and Frank (1993) proposed that Resource Exchange Theory should be extended to incorporate the dimensions of need and equality. Consistent with the beliefs of Deutsch (1975), the authors concluded that the equality rule is preferred when a person's attention is focused on the group he or she is in or when cohesiveness or cooperation is a major concern. Lin, Insko, and Rusbult (1991) discussed Hwang's (1987) development of a Chinese model of resource distribution and exchange based on the work of Foa and Foa's (1974) Resource Exchange Theory and Deutsch's (1975) model of justice rules. The study found similarities between the Hwang Model and the models of social exchange and justice processes as advanced in the theories by Deutsch (1975) and Foa and Foa (1974). Teichman (1971) and Donnenwerth (1971) concluded that qualitatively different principles of justice are applied in different situations, depending on the nature of the resources in question.

Previous research based upon the work of Foa and Foa (1974) has indicated that resources that are close in proximity show a higher level of satisfaction than those do that are farther apart. According to predictions made by Deutsch (1975), individuals who perceive themselves as performing their jobs in "naturally occurring" work groups or teams should utilize the equality norm in evaluating their exchanges as they should perceive themselves in conditions of cooperative social harmony or friendship in which profits or losses will be distributed equally among members regardless of their objective contributions. Individuals, according to Deutsch (1975), who perceive themselves as performing their jobs as individuals and see their jobs as being more individualized will perceive the exchanges taking place in an employer-employee relationship, thus using an economic orientation in their responses.

Leading to Hypothesis 2, which is:

H2. Individuals who perceive themselves as performing their jobs in "naturally occurring" work groups (collectivistic) will have a higher level of satisfaction for the exchange of resources that are closer in proximity than those resources that are farther apart in proximity while those who perceive themselves as performing their jobs as individuals (individualistic) will not have a significant difference in their level of satisfaction.

This hypothesis attempted to establish domains as described by Deutsch (1975) for the exchange of resources in the work place as they relate to proximity as predicted in Hypothesis 1. The level of satisfaction was explored for individuals who perceive themselves as performing their jobs in "naturally occurring" work groups and those perceive themselves as performing their jobs as individuals. The level of satisfaction of individuals who perceive themselves as performing their jobs in work groups should have a significantly higher level of satisfaction for resources that are closer in proximity than those that are farther apart. There should be no significant difference in the level of satisfaction of individuals who perceive themselves as performing their job as individuals.

Hypothesis 3

Research has shown that the satisfaction for the resources love, status, and information is significantly greater than that of the resources money, goods, and services. Van Kreveld and Van Beemen (1978) concluded that exchange and the sharing of intrinsic intangible resources -- love, status, and information-- are more acceptable in exchange relationships than other resources. This finding was consistent to that of Tornblom, Jonsson and Foa (1985) and Brinberg and Castell (1982). Tornblom and Fredholm (1984) found that exchanges of love and services led to perceptions of a greater degree of friendship than did exchanges of goods, money, or information. Tornblom and Foa (1993) indicated that equality is considered the most appropriate principle for allocation of love, information, goods and services while equity rules were acceptable for the distribution of money (Foa and Stein, 1980; Lloyd, Cate, and Henton, 1982; Tornblom, Jonsson, and Foa, 1985).

In a study applying Resource Exchange Theory to the work place, Berg and Wiebe (1989) found significant differences in workers who were and were not members of quality circles (work teams) and between workers whose jobs were more repetitive and routine and those who performed more unique and sophisticated tasks. The authors found the exchanges reported most frequently by employees who were not members of a quality circle to be the ones expected from a pure economic view of work in which workers received money in return for their services. The results quantified the resources quality circle members exchanged within that program and revealed that the primary exchanges involved the giving and receiving intrinsic resources in the categories of information, love and status. Previous research by the Foas and their associates concerning Resource Exchange Theory concluded that the level of overall satisfaction for intrinsic resources has been greater than that for extrinsic resources.

Leading to Hypothesis 3, which is:

H3. Individuals will have a higher level of overall satisfaction for the intrinsic resources love, status, information, work itself, and service than that of the extrinsic resource money.

This hypothesis examined the level of satisfaction of individuals with the exchange of resources in the work place as it relates to the intrinsic resources love, status, information, service and work itself as compared to the level of satisfaction for the extrinsic resource money. Johnson (1995) found little support for this hypothesis in a sample of industrial workers by utilizing the Berg/Wiebe Resource Exchange Scale to measure the satisfaction with the exchange of resources in the work place. However, past research overwhelmingly indicates that the level of overall satisfaction of individuals should be significantly higher for intrinsic resources than extrinsic resources.

Hypothesis 4

According to Deutsch (1975), individuals who perceive themselves as collectivistic or as performing their jobs in "naturally occurring" work groups should utilize the equality norm in the exchange of intrinsic resources as evidenced by Tornblom and Foa (1993). These individuals should also have a higher level of satisfaction for the intrinsic resources as suggested by Berg and Wiebe (1989) in a study of group members.

Berg and Wiebe (1989) concluded that individuals who perceive themselves as individualistic or as performing their jobs as individuals did not have a higher level of satisfaction for intrinsic resources. The authors found the exchange of money for services to be the most common exchange among workers who were not members of work groups and those who performed more repetitive and routine tasks. According to Deutsch (1975) these individuals will perceive the exchange taking place in a pure economic view and will utilize the equity norm in their evaluation of the exchange of money with another resource as was found in the study by Tornblom and Foa (1993). Previous research by the Foas and others on Resource Exchange Theory concluded that the level of overall satisfaction for intrinsic resources has been greater than that for extrinsic resources.

Leading to Hypothesis 4, which is:

H4. Individuals who perceive themselves as performing their jobs in "naturally occurring" work groups (collectivistic) will have a higher level of overall satisfaction for the intrinsic resources love, status, information, work itself, and service than that of the extrinsic resource money while those who perceive themselves as performing their jobs as individuals (individualistic) will not have a significant difference in their level of overall satisfaction.

This hypothesis attempted to establish domains for the exchange of intrinsic and extrinsic resources in the work place as predicted in Hypothesis 3. Hypothesis 4 examined the level of satisfaction of individuals who perceive themselves as performing their jobs in "naturally occurring" work groups and those who perceive themselves as performing their jobs as individuals. The level of overall satisfaction with the exchange of the intrinsic resources love, status, information, service and work itself was compared to the level of satisfaction for the extrinsic resource money. The level of overall satisfaction of individuals who perceive themselves as performing their jobs in a collectivistic environment should be significantly higher for the intrinsic resources love, status, information, service, and work itself than that of the extrinsic resource money. There should be no significant difference in the level of overall satisfaction of individuals who perceive themselves as performing their jobs as individuals for the intrinsic resources and the extrinsic resource money.

Hypotheses 5 and 6

Research by Van Krevald and Van Beemen (1978) has shown that satisfaction for the resources love, status, and information is significantly greater than that of the resources money, goods, and services. The authors also concluded that the exchange of the intangible resources love, status, and information are more acceptable in exchange relationships than other resources. In several studies concerning social exchange, the resource service has been grouped with the resource goods (Foa and Stein, 1980; Lloyd, Cate, and Henton, 1982; Tornblom, Jonsson, an Foa, 1985; Tornblom and Foa, 1993). Therefore, questions have been raised as to whether the resource service might be viewed as an extrinsic resource such as that of goods or money. Hypotheses 3 and 4 were modified to allow this study to address this research question.

Leading to hypothesis 5, which is:

H5. Individuals will have a higher level of overall satisfaction for the intrinsic resources love, status, information, and work itself than that of the combined extrinsic resources money and service.

This hypothesis examined the level of satisfaction of individuals with the exchange of resources in the work place as it relates to the intrinsic resources love, status, information, and work itself as compared to the level of satisfaction for the combined extrinsic resources money and service. The level of satisfaction for the resource money was combined with the level of the satisfaction for the resource service for this hypothesis. Past research on Foa and Foa's (1974) Resource Exchange Theory indicated that the level of overall satisfaction of individuals should be significantly higher for intrinsic resources than extrinsic resources.

Leading to Hypothesis 6, which is:

H6. Individuals who perceive themselves as performing their jobs in "naturally occurring" work groups (collectivistic) will have a higher level of overall satisfaction for the intrinsic resources love, status, information, and work itself than that of the combined extrinsic resources money and service while those who perceive themselves as performing their jobs as individuals (individualistic) will not have a significant difference in their level of overall satisfaction.

This hypothesis attempted to establish domains for the exchange of intrinsic and extrinsic resources in the work place as predicted in Hypothesis 4. Hypothesis 6 examined the level of satisfaction of individuals who perceive themselves as performing their jobs in "naturally occurring" work groups and those who perceive themselves as performing their jobs as individuals. The level of satisfaction with the resource money was combined with the level of satisfaction for the resource service for this hypothesis. The level of satisfaction with the exchange of the intrinsic resources love, status, information, and work itself was compared to the level of satisfaction for the combined extrinsic resources money and service. The level of overall satisfaction of individuals who perceive themselves as performing their jobs in a collectivistic environment should be significantly higher for the intrinsic resources love, status, information, service, and work itself than that of the combined extrinsic resources money and service. There should be no significant difference in the level of overall satisfaction of individuals who perceive themselves as performing their jobs as individuals for the intrinsic resources and the combined extrinsic resources money and service.

Summary

This chapter presented the hypotheses concerning the exchange of resources in the work place and the level of satisfaction with these exchanges that have been found in past research concerning Resource Exchange Theory developed by Foa and Foa (1974). Hypotheses one, three, and five provided information that was used to determine if the results of the Revised Berg/Wiebe Resource Exchange Scale found similar results in the work place as those found in the conclusions of previous research relating to Foa and Foa's (1974) Resource Exchange Theory. Hypotheses two, four, and six provided information to determine if the domains described by Deutsch (1975) were established for exchanges in the work place. Chapter IV presents the methodology utilized in this study.

CHAPTER IV

METHODOLOGY

This chapter provides information concerning the sample and data collection procedures selected for the study. Next, a description of the demographics and analytical techniques that were utilized to test the instruments for reliability and validity, analyze the demographics, and test the hypotheses are presented.

Subjects

The sample selected for this study consisted of employees in a medium size health care facility (hospital) located in Delta Region of the State of Mississippi. Employees of this facility were chosen for the several reasons. First, these subjects provided a sample in which a significant number of the employees conduct their jobs as part of a "naturally occurring" work group or team, while the other employees held jobs that are perceived as individualized or independent. The sample is representative of the population of health care workers who would be working in this type of environment which is common place in the health care field. The health care industry is one of the largest employers in the state of Mississippi. Second, these employees should have a great interest in the satisfaction of resources exchanged in the work place and offer a wide range of interactions in terms of exchange relationships. Additionally, these subjects should be able to evaluate their satisfaction with exchange outcomes in the work place better than subjects who are either not employed in a business setting (such as students) or are employed in a setting in which employees are not part of a work group or team (such as line workers employed in an industrial setting).

The sample utilized in this study is classified as a convenience sample as described by Kerlinger (1973). The subjects in this study were not selected at random. They were selected from the population that was being examined and the sample is made up of those subjects who were reasonably accessible and available to participate in the study (Sherer, 1987).

This study was exploratory in nature, as it is only one of several attempts to apply Foa and Foa's Resource Exchange Theory to the work place. The exploratory nature of this study was appropriate as exploration according to Emory and Cooper (1991) allows researchers to develop their concepts more clearly and determine if additional research in the area is needed.

Demographics

Several demographic questions were utilized for descriptive purposes. The questions asked for information concerning gender, race, age, marital status, education, economic status, and occupation. Subjects were also asked questions concerning their length of employment in the health care industry, length of employment with the employer, and the length of time they lived in the Delta Region of Mississippi. The questions can be found in the Appendix. Descriptive statistical analyses were conducted on the demographic data. Additional statistical analyses were conducted in relation to the demographics and the overall satisfaction scores of the Revised Berg/Wiebe Resource Exchange Scale, the overall satisfaction score of the Short-form Minnesota Satisfaction Questionnaire, and the overall score of the Individualism-Collectivism Scale. The analytical techniques used for analysis are discussed later in this chapter. A summary of the results of the analysis is presented in Chapter V.

Data Collection Procedure

Subjects in this study were informed that the data being collected was part of a doctoral dissertation under the direction of Dr. Frank A. Wiebe. The subjects were told in a letter of introduction from the hospital administrator attached to the questionnaire that the purpose of the study was to gather information about resources exchanged in the work place and the satisfaction with these exchanges, as well as satisfaction with their jobs in general. A proposal to conduct the study was presented to the Human Subjects Review Committee at the University of Mississippi. This committee granted permission to the investigator to proceed with the study.

The questionnaires were distributed to each participant by their supervisor. The participants filled out the surveys anonymously and returned them to their supervisors in a sealed envelope provided. The supervisors collected the surveys, placed them in a sealed envelope provided, and returned them to the facility's administration office where the investigator collected them for data analysis and interpretation.

Data Collection Instruments

Part I of the questionnaire contained questions concerning the exchange of resources and a measurement of satisfaction with the outcome of these exchanges as developed by Berg and Wiebe (1986, 1989). Part II contained a measurement of job satisfaction as measured by the Short-form Minnesota Satisfaction Questionnaire. Part III contained a measurement of constructs of individualism and collectivism developed by Triandis (1995). Part IV contained questions to gather demographic and employment information from the subjects. A complete reproduction of the research instrument including the instructions for each section is included in the Appendix. The analytical techniques used to evaluate the instrument are presented later in this chapter. Results of the statistical analysis are presented in Chapter V.

Revised Berg/Wiebe Resource Exchange Scale

Berg and Wiebe (1986, 1989) developed the Berg/Wiebe Resource Exchange Scale from the concepts of the research conducted by Foa and Foa (1974) in the area of resource exchange. The authors distributed brief questionnaires to workers of two plants of whom approximately fifty percent were members of a quality circle (group or work team) asking questions about the resources given and received at the work place. Open-ended questions were used to obtain responses from subjects concerning the resources given and received at the work place. Berg and Wiebe's analysis of the responses of the open-ended questions resulted in the Berg/Wiebe Resource Exchange Scale. In Berg and Wiebe's (1986) study, the open-ended questions were as follows:

All workers were asked to respond to the following:

1. The main things I get from working here are ____________________.
2. The main things I give to this firm are __________________________.

Quality circle (group) members were asked to respond to:

1. The additional things I get from participating in quality circles are ____________________.
2. The additional things I give by participating in quality circles are ____________________.

Responses to these questions led to the development of the Berg/Wiebe Resource Exchange Scale, which contains thirty hypothesized exchanges and thirty questions concerning satisfaction with the exchanges.

The Berg/Wiebe Resource Exchange Scale presents examples of receiving money, information, love, status, services, and benefits unique to the job itself. Each of the examples of contributing a particular resource to the company was paired with the examples of resources received from the company on the job. Subjects are asked to rate:

1. The perceived likelihood of each of the resulting exchanges occurring and
2. How satisfied they would be with each.

Berg and Wiebe's (1986, 1989) studies demonstrated that Resource Exchange Theory could be used to describe and quantify the types of resources that workers receive and give more often on the job. Johnson (1995), in a study of manufacturing workers, found the Berg/Wiebe Resource Exchange Scale to be a valid and reliable instrument for measuring the exchange of resources in the work place and the level of satisfaction with the exchange. Each statistical procedure employed in Johnson's (1995) study provided positive results concerning the reliability and validity of the Berg/Wiebe Resource Exchange Scale. The procedures used include correlation analysis, Cronbach's Alpha, and Guttman's split-half procedure. Each of the correlations was found to be significant at the .05 level of significance. The Cronbach's Alpha procedure resulted in a score of approximately .87. The Split-half procedure resulted in a correlation of approximately .80 and the Guttman split-half reliability of approximately .87 (Johnson, 1995).

The Berg/Wiebe Resource Exchange Scale appears to be reliable and valid; therefore, a revised version of this scale was one of the instruments chosen for this dissertation. Further examination of the instrument revealed a possible problem with the wording of the questions for implementation in a setting where subjects perceive themselves as working in groups or teams. The word "company" was used to represent the employer in the exchange relationships. This study examined exchange relationships among group members not just with the employer. The Berg/Wiebe Resource Exchange Scale was revised by removing the word "company" from the questions to allow individuals in the work place to indicate their perceptions of the exchange of resources.

Short-form Minnesota Satisfaction Questionnaire

The University of Minnesota in a project known as the Work Adjustment Project developed the Minnesota Satisfaction Questionnaire (MSQ). The project was funded by a grant from the United States Office of Vocational Rehabilitation to study difficulties facing the disabled (Weiss, Davis, England, and Lofquist, 1967). Goalie (1968) claimed that the instrument was developed because there was no established measurable criteria for the evaluation of vocational rehabilitation centers. The instrument was designed to measure job satisfaction and consists of 100 items with five items designed to measure each of twenty scales (Goalie, 1968).

Goalie (1968) described the primary study that led to the development of the MSQ. The study utilized 638 disabled persons and 530 non-handicapped individuals. The subjects were divided into sub groups for each category: non-skilled blue collar, skilled blue collar, non-skilled white collar, and skilled white collar. Different scales were developed for each group and satisfaction was found to be organized in similar categories for each group. This study was the basis for the development of the 100-item MSQ (Goalie, 1968).

The Short-form of the Minnesota Satisfaction Questionnaire was developed as a sub-test of the 100-item MSQ. The twenty scales in the long-form MSQ are represented by one item each in the short form. Subjects are asked to choose one of five possible choices to express their level of job satisfaction -- very dissatisfied, dissatisfied, neither dissatisfied or satisfied, satisfied, or very satisfied (Bates, 1968). Weiss, Davis, Lofquist, and England (1966) described the instrument as containing twenty items that can be answered in a short-time period. The directions direct the subject to ask himself/herself the question -- this is how I feel on my present job ___________ (for each item).

Weiss, Davis, Lofquist, and England (1966) defined three satisfaction scales that have been found to be reliable and valid for measuring job satisfaction (Bates, 1968). An intrinsic factor was identified as response-specific reinforcers that deal with the ratio of work itself (reliability coefficients ranging from .84 to .91), while an extrinsic factor related to the work environment was developed (reliability coefficients ranging from .77 to .82). A general satisfaction scale was also determined for all twenty items (reliability coefficients ranging from .87 to .92) (Weiss, Davis, England, and Lofquist, 1966).

The validity of the Short-form MSQ was largely inferred from the Long-Form MSQ, which reported test-retest correlations of +. 89 for a one-week period and +. 70 for a one-year period (Bates, 1968). Thus, the Short-form MSQ has been found to be a reliable and valid tool for measuring job satisfaction; therefore, the Short-form MSQ was utilized in this dissertation to confirm the reliability and validity of the Revised Berg/Wiebe Resource Exchange Scale in the work place.

Individualism-Collectivism Scale

There has been a high level of interest in the constructs of individualism and collectivism in the literature and with this interest comes a significant demand for their measurement. Singelis, Triandis, Bhawuk, and Gelfand (1995) concluded that the measurement has not been easy. Measurements have been developed with limited success at the cultural level (Hofstede, 1980; Triandis, Bontempo, Bentancourt, Bond, Leung, Brenes, Georgas, Hui, Marin, Setiadi, Sinha, Verma, Spangenberg, Touzard, and de Montmollin, 1986) and the individual level (Hui, 1988; Triandis, Bontempo, Villareal, Asai, and Lucca, 1988; Triandis, Leung, Villareal and Clack, 1985; Triandis, McCusker and Hui, 1990). The most important limitation had been low reliabilities (Singelis, Triandis, Bhawuk, and Gelfand, 1995)

Triandis (1995) developed the Individualism-Collectivism Scale from the results of a stream of research extending over many years (Triandis, 1989; Triandis, Bontempo, Villareal, Asai, and Lucca, 1988; Triandis, Leung, Villareal, and Clack, 1985). The scale contains sixteen items to measure individualism and sixteen items to measure collectivism. The scale was constructed in an attempt to operationalize the constructs of individualism and collectivism and to find the best way to measure them (Triandis, 1996). Triandis and his associates have done the most extensive work on the constructs of individualism-collectivism at the individual and cultural level.

The scale is based on an earlier version in which reliability and validity studies done by Triandis, Leung, Villareal, and Clack (1985) indicated good construct and criterion validity. The authors found that their measure of individualism-collectivism had an acceptable level of reliability with a Cronbach's Alpha of .74. High levels of collectivism were correlated with values such as cooperation, equality, and honesty, whereas high levels of individualism were correlated with values such as comfortable life, pleasure, and social recognition (Triandis, Leung, Villareal, and Clack, 1985). The Triandis (1995) Individualism-Collectivism Scale has yielded Cronbach's Alpha coefficients ranging from .60 to .70. A coefficient of .66 was found for the individualism questions and .78 for the collectivism questions in a study by Singelis, Triandis, Bhawuk, and Gelfand (1995). This scale was recommended for this study by the author of Triandis (1995) in a personal interview via phone with the investigator. Due to the high reliability and validity measures of the scale and the recommendation of the author, this scale was utilized in this dissertation to determine if the subjects perceive themselves as performing their jobs in "naturally occurring" work groups or as individuals.

Scoring Procedure

In order to perform the statistical analysis for this study, the responses to the scales utilized in this study were scored as follows:

Revised Berg/Wiebe Likelihood Scale

Almost Always	= 1
Frequently	=.75
Occasionally	=.50
Seldom	=.25
Never	= 0

Revised Berg/Wiebe Satisfaction Scale and Short-form MSQ

Very Dissatisfied	= -2
Dissatisfied	= -1
Neutral	= 0
Satisfied	= 1
Very Satisfied	= 2

Collectivism-Individualism Scale - Collectivism Questions

Strongly Disagree	= -2
Disagree	= -1
No Opinion	= 0
Agree	= 1
Strongly Agree	= 2

Collectivism-Individualism Scale - Individualism Questions

Strongly Disagree	= 2
Disagree	= 1
No Opinion	= 0
Agree	= -1
Strongly Agree	= -2

Analytical Techniques

The analytical techniques used in this dissertation to analyze the validity and reliability of the instruments, the demographics, and the hypotheses are discussed in the next sections.

Validity and Reliability

Pearson Product Moment Correlation

The Pearson Product Moment Correlation was used with the results of the Revised Berg/Wiebe Resource Exchange Scale to determine if the two measures of exchange of each resource and the satisfaction with these exchanges were correlated and were measuring the concept with similar results (Aczel, 1993).

Cronbach's Alpha

A Cronbach's Alpha was calculated to assist in evaluating the reliability and validity of the Revised Berg/Wiebe Resource Exchange Scale, the Short-form Minnesota Satisfaction Questionnaire, and the Collectivism-Individualism Scale. This procedure is used to examine the interitem consistency of an instrument (Cronbach, 1949, 1951).

Guttman Split-half Procedure

The Guttman split-half procedure was used in addition to the calculation of the Cronbach's Alpha to evaluate the reliability and validity of the Revised Berg/Wiebe Resource Exchange Scale, the Short-form Minnesota Satisfaction Questionnaire, and the

Individualism-Collectivism Scale. This method evaluates the likeness of a grouping of items. Thus, items in a scale should measure similar issues (Davis and Consenza, 1993). To perform this procedure, each scale was divided into two equal halves. Results on the first half were correlated with results of the second half. The results of the correlation were used to evaluate the reliability of each scale.

Concurrent Validity

A form of concurrent validity was also used to evaluate the validity of the Revised Berg/Wiebe Resource Exchange Scale. Concurrent validity is the degree to which the scores on a test are related to the scores on another, already established test, administered at the same time. If the resulting validity coefficient is high, the test has good concurrent validity (Gay, 1976; Cronbach, 1970).

The results obtained through correlation analysis, Cronbach's Alpha, and the Split-half procedure were used to examine the reliability and validity of the scales chosen for this study. The results were utilized to determine if the scales could be used to evaluate the hypotheses concerning the exchange of resources at the work place. A summary of the analytical techniques used to evaluate the validity and reliability of the scales is presented in Table 1.

Table 1

Analytical Techniques for Reliability and Validity of Scales

Scale	Tests	Desired Results
Revised Berg/Wiebe Resource Exchange Scale	Correlation Analysis Cronbach's Alpha Guttman Split-half Procedure	Results consistent with those of past studies.
Short-form Minnesota Satisfaction Questionnaire	Correlation Analysis Cronbach's Alpha Guttman Split-half Procedure	Results consistent with those of past studies.
Individualism-Collectivism Scale	Correlation Analysis Cronbach's Alpha Guttman Split-half Procedure	Results consistent with those of past studies

Demographics

Additional analysis was conducted to examine the relationship of the demographics and the overall satisfaction score of the Revised Berg/Wiebe Resource Exchange Scale, the overall satisfaction score of the Short-form Minnesota Satisfaction Questionnaire, and the overall score of the Individualism-Collectivism Scale. The areas that were evaluated along with the scales were gender, race, age, marital status, education, economic status, occupation, length of employment in health care, length of employment with employer, and length of time lived in the Delta Region of Mississippi. Student's t-tests were utilized to compare the overall scores with gender and race (Daniel and Terrell, 1992; Mason and Lind, 1993; 1996). Spearman Correlation Analysis was used to evaluate the overall scores with the categories of age and education (Carlson and Thorne, 1997; Levine, Berenson, and Stephan, 1997). Analysis of Variance was employed to evaluate the overall scores with marital status and economic status

(McClave, Benson, and Sincich, 1998). The length of time worked in the health care industry, worked with the employer and living in the Delta was compared with the overall scores through the use of correlation analysis. A summary of the analytical techniques utilized to compare the demographic variables with the overall scores of the scales is presented in Table 2.

Table 2

Analytical Techniques for Demographic Variables and Overall Scores of Scales

Variables	**Tests**	**P Value**	**Desired Results**
Gender Race	T-test	.05	No significant differences will be indicated.
Age Education	Spearman Correlation	.05	No significant differences will be indicated.
Marital Status Economic Status	ANOVA	.05	No significant differences will be indicated.
Length of time employed in health care industry, working with employer, living in the Delta	Pearson Product Moment Correlation	.05	No significant differences will be indicated.

Hypotheses

The analytical techniques chosen to evaluate the hypotheses in this study required that sub-hypotheses be developed for each hypothesis. Student's t-tests were utilized to analyze all of the hypotheses presented in this study (Daniel and Terrell, 1992; Mason

Table 3

Analytical Techniques for Hypotheses

Hypothesis	Test	Value	Desired Results
1	T-test	.05	A significance level of $p < .05$ is necessary to support Hypothesis 1.
2	Simple Regression	.05	A significance level of $p < .05$ is necessary to support Hypothesis 2.
2	T-test	.05	A significance level of $p < .05$ is necessary to support Hypothesis 2 for the collectivists and $p > .05$ is necessary to support Hypothesis 2 for the individualists.
3	T-test	.05	A significance level of $p < .05$ is necessary to support Hypothesis 3.
4	T-test	.05	A significance level of $p < .05$ is necessary to support Hypothesis 4 for the collectivists and $p > .05$ is necessary to support Hypothesis 4 for the individualists.
5	T-test	.05	A significance level of $p < .05$ is necessary to support Hypothesis 5.
6	T-test	.05	A significance level of $p < .05$ is necessary to support Hypothesis 6 for the collectivists and $p > .05$ is necessary to support Hypothesis 6 for the individualists

and Lind, 1993; 1996). Simple regression analysis was used in addition to the t-tests for further evaluation in Hypothesis 2 of the relationship of satisfaction with the exchange of resources and individuals' perceptions of performing their jobs (Levin and Rubin, 1998). A summary of the statistical techniques and the desired results is presented in Table 3.

Summary

This chapter presented information concerning the sample and data collection procedures selected for the study. Next, a description of the demographics and the analytical techniques for analyzing the validity and reliability of the instruments, demographics, and the hypotheses was presented. Chapter V will present the results of the statistical analyses employed in this study.

CHAPTER V

RESULTS

This dissertation examined the exchange of resources in the work place and the level of satisfaction with these exchanges. The Revised Berg/Wiebe Resource Exchange Scale was employed to explore issues that have been studied in past research by Berg and Wiebe (1986, 1989) and Johnson (1995) concerning Foa and Foa's (1974) Resource Exchange Theory. The Individualism-Collectivism Scale developed by Triandis (1995) was also utilized with the Revised Berg/Wiebe Resource Exchange Scale to extend the research of the issues concerning resource exchange by attempting to establish domains as described by Deutsch (1975) for exchanges in the work place.

First the results of the tests for reliability and validity of each instrument are presented. Next, the results of the analysis of the demographics are presented. Finally the results of the analysis of the hypothesis will be presented.

Validity and Reliability

Correlation analysis, Cronbach's Alpha, and the split-half procedure were utilized to evaluate the reliability and validity of each scale used in this study. The results of these statistical techniques are presented in the sections to follow.

Revised Berg/Wiebe Resource Exchange Scale

The Pearson Product Moment Correlation Procedure (Emory and Cooper, 1991) was used to evaluate the reliability of the Revised Berg/Wiebe Resource Exchange Scale. The exchange scores were combined with the satisfaction scores of the exchanges for evaluation. Correlation analysis was used to evaluate the relationship of the two questions designed to measure the likelihood of the particular exchanges and the satisfaction with these exchanges. The results of this correlation analysis are presented in Table 4. In addition to the combined scores, correlation analysis was conducted utilizing only the satisfaction with exchange scores to determine the degree of satisfaction with each exchange. This analysis showed the relationship between the satisfaction scores of the two measures of each exchange being examined. The results of this correlation analysis are presented in Table 5.

Table 4

Correlation of Two Measures of Exchanges and Satisfaction Level of Exchanges for Each Resource Revised Berg/Wiebe Resource Exchange Scale

Resources	Correlation Results
Love/Work Itself	.462**
Love/Love	.462**
Love/Information	.563**
Service/Status	.525**
Love/Money	.747**
Information/Work Itself	.579**
Service/Information	.660**
Information/Status	.622**
Service/Work Itself	.634**
Information/Love	.583**
Love/Status	.698**
Service/Money	.665**
Service/Love	.577**
Information/Money	.743**
Information/Information	.670**

** $p < .01$

The results of the correlation analysis included in Tables 4 and 5 suggested that the two measures of exchange of each resource and the satisfaction with the exchanges appear to be significant at the .01 level of significance. The results of the satisfaction scores in Table 5 indicate that the two measures of exchange appear to be measuring the same concept with similar results.

Table 5

Correlation of Two Measurements of Level of Satisfaction for Each Resource Revised Berg/Wiebe Resource Exchange Scale

Resources	Correlation Results
Love/Work Itself	.409**
Love/Love	.404**
Love/Information	.499**
Service/Status	.473**
Love/Money	.687**
Information/Work Itself	.559**
Service/Information	.595**
Information/Status	.645**
Service/Work Itself	.645**
Information/Love	.457**
Love/Status	.685**
Service/Money	.656**
Service/Love	.522**
Information/Money	.696**
Information/Information	.652**

** $p < .01$

Cronbach's Alpha was calculated to evaluate the interitem consistency of the likelihood scale, satisfaction scale and all items of the Revised Berg/Wiebe Resource Exchange Scale. The results of these analyses are presented in Table 6. The results show a Cronbach's Alpha for all items to be .966, the likelihood scale to be .963 and for the satisfaction scale to be .975.

Table 6

Results of Cronbach's Alpha for the Revised Berg/Wiebe Resource Exchange Scale

All Items

Mean:	46.400	Sum:	6217.000
Standard Deviation:	25.694	Variance:	443.068
Skewness:	-.500	Kurtosis:	.254
Minimum:	-21.000	Maximum:	75.000
Cronbach's Alpha:	.966	Standardized Alpha:	.972
		Average Inter-item Correlation:	.362

Likelihood Scale

Mean:	25.515	Sum:	3419.000
Standard Deviation:	5.100	Variance:	25.980
Skewness:	-1.223	Kurtosis:	.586
Minimum:	10.250	Maximum:	30.000
Cronbach's Alpha:	.963	Standardized Alpha:	.964
		Average Inter-item Correlation:	.480

Satisfaction Scale

Mean:	20.881	Sum:	2798.000
Standard Deviation:	22.582	Variance:	509.956
Skewness:	-.674	Kurtosis:	.989
Minimum:	-56.000	Maximum:	60.000
Cronbach's Alpha:	.975	Standardized Alpha:	.975
		Average Inter-item Correlation:	.573

The Guttman split-half procedure was utilized to further evaluate the reliability and validity of the likelihood scale, the satisfaction scale and all items of the Revised Berg/Wiebe Resource Exchange Scale. A table of random numbers was used to divide the scales into two equal halves. The results of these analyses are presented in Table 7. The results show the Cronbach's Alpha for the first half of all items on the scale to be .932 while the Cronbach's Alpha for the second half is .946. The correlation between the

Table 7

Results of Split-half Procedure for the Revised Berg/Wiebe Resource Exchange Scale

All Items

	First Half		Second Half
Number of Items:	30		30
Mean:	22.843		23.552
Sum:	3061.000		3156.000
Standard Deviation:	12.447		14.641
Variance:	103.706		142.241
Cronbach's Alpha:	.932		.946
Correlation between first and second half:		.855	
Correlation for corrected attenuation:		.922	
Split-half Reliability:		.882	
Guttman Split-half Reliability:		.919	

Likelihood Scale

	First Half		Second Half
Number of Items:	15		15
Mean:	12.879		12.636
Sum:	1725.750		1693.250
Standard Deviation:	2.476		2.910
Variance:	6.132		8.473
Cronbach's Alpha:	.927		.949
Correlation between first and second half:		.789	
Correlation for corrected attenuation:		.841	
Split-half Reliability:		.882	
Guttman Split-half Reliability:		.875	

Satisfaction Scale

	First Half		Second Half
Number of Items:	15		15
Mean:	10.500		10.381
Sum:	1407.000		1391.000
Standard Deviation:	11.171		12.332
Variance:	124.787		152.101
Cronbach's Alpha:	.952		.961
Correlation between first and second half:		.846	
Correlation for corrected attenuation:		.884	
Split-half Reliability:		.916	
Guttman Split-half Reliability:		.914	

first and second halves of all items is .855, and the Guttman split-half reliability is .919. The Cronbach's Alpha for the first half of the likelihood scale is .927 while the Cronbach's Alpha for the second half is .949. The correlation between the first and second halves of the likelihood scale is .789, and the Guttman split-half reliability is .875. The Cronbach's Alpha for the first half of the satisfaction scale is .952 while the Cronbach's Alpha for the second half is .961. The correlation between the first and second half of the satisfaction scale is .846, and the Guttman split-half reliability is .914.

In order to evaluate the concurrent validity of the Revised Berg/Wiebe Resource Exchange Scale, an overall score for the scale was obtained by combining the scores of the satisfaction scale with those of the scale measuring the likelihood of particular exchanges occurring. An overall score was obtained for the Short-form Minnesota Satisfaction Questionnaire. The concurrent validity of the Revised Berg/Wiebe Resource Exchange Scale was evaluated by comparing the overall score for the Revised Berg/Wiebe Scale with the overall score for the Short-form MSQ utilizing the Pearson Product Moment Correlation (Emory and Cooper, 1991).

The Revised Berg/Wiebe Resource Exchange Scale was administered along with the Short-form Minnesota Satisfaction Questionnaire to determine if the two instruments measure the same concept -- satisfaction. A comparison of the two instruments resulted in a correlation coefficient of .494, which was significant at the .01 level of significance. An overall score was calculated for the satisfaction scale of the Revised Berg/Wiebe Resource Exchange Scale and was compared to the score from the Short-form MSQ. The results yielded a correlation coefficient of .549, which was significant at the .01 level of significance.

Short-form Minnesota Satisfaction Questionnaire

Cronbach's Alpha was calculated to evaluate the interitem consistency of the Short-form Minnesota Satisfaction Questionnaire. The results of these analyses are presented in Table 8. A Cronbach's Alpha of .913 was calculated from the administration of the Short-form Minnesota Satisfaction Questionnaire.

Table 8

Results of Cronbach's Alpha and Split-half Procedure for the Short-form Minnesota Satisfaction Questionnaire

Cronbach's Alpha

Mean:	15.104	Sum:	2024.000
Standard Deviation:	12.759	Variance:	162.780
Skewness:	-1.136	Kurtosis:	2.556
Minimum:	-40.000	Maximum:	37.000
Cronbach's Alpha:	.913	Standardized Alpha:	.914
		Average Inter-item Correlation:	.356

Split-half Procedure

	First Half		Second Half
Number of Items:	10		10
Mean:	9.529		5.574
Sum:	1277.000		747.000
Standard Deviation:	6.044		7.920
Variance:	36.532		62.737
Cronbach's Alpha:	.839		.887
Correlation between first and second half:		.663	
Correlation for corrected attenuation:		.769	
Split -half Reliability:		.798	
Guttman Split-half Reliability:		.780	

Guttman split-half procedure was utilized to further evaluate the validity and reliability of the Short-form Minnesota Satisfaction Questionnaire. A table of random numbers was used to divide the scale into two halves. The results of these analyses are presented in Table 8. The results show the Cronbach's Alpha for the first half of the Short-form MSQ is .839 while the Cronbach's Alpha for the second half is .887. The correlation between the first and second halves of the scale is .663 and the Guttman split-half reliability is .780. These results provide support for the validity and reliability of the Short-form Minnesota Satisfaction Questionnaire.

Individualism-Collectivism Scale

Cronbach's Alpha was calculated to evaluate the interitem consistency of the collectivism items, individualism items, and all items of the Individualism-Collectivism Scale. Examining the results from Table 9 showed a Cronbach's Alpha for all items to be .682, the collectivism items to be .719, and the individualism items to be .583.

The Guttman split-half procedure was utilized to further evaluate the reliability and validity of the collectivism items, individual items, and all items of the Individualism-Collectivism Scale. A table of random numbers was used to divide the scales into two equal halves. The results presented in Table 10 show the Cronbach's Alpha for the first half of all items on the scale to be .627 while the Cronbach's Alpha for the second half is .524. The correlation between the first and second halves of all items is .342 and the Guttman split-half reliability is .507. The Cronbach's Alpha for the first half of the Collectivism items is .628 while the Cronbach's Alpha for the second half is .595. The correlation between the first and second halves of the collectivism items is .427, and the Guttman split-half reliability is .598. The Cronbach's Alpha for the first half of the individualism items is .606 while the Cronbach's Alpha for the second half is .376. The correlation between the first and second half of the Individualism items is .216, and the

Guttman split-half reliability is .348. Examining the results of the split-half procedure provides support for the validity and reliability of the Individualism-Collectivism Scale.

Table 9

Results of Cronbach's Alpha for the Individualism-Collectivism Scale

All Items

Mean:	109.612	Sum:	14688.000
Standard Deviation:	9.288	Variance:	86.267
Skewness:	-.065	Kurtosis:	.508
Minimum:	76.000	Maximum:	133.000
Cronbach's Alpha:	.682	Standardized Alpha:	.693
		Average Inter-item Correlation:	.068

Collectivism Items

Mean:	58.679	Sum:	7863.000
Standard Deviation:	6.414	Variance:	41.143
Skewness:	-.421	Kurtosis:	.602
Minimum:	37.000	Maximum:	73.000
Cronbach's Alpha:	.719	Standardized Alpha:	.739
		Average Inter-item Correlation:	.153

Individualism Items

Mean:	50.932	Sum:	6825.000
Standard Deviation:	5.923	Variance:	35.078
Skewness:	.184	Kurtosis:	-.296
Minimum:	36.000	Maximum:	65.000
Cronbach's Alpha:	.583	Standardized Alpha:	.572
		Average Inter-item Correlation:	.0795

Table 10

Results of Split-half Procedure for the Individualism-Collectivism Scale

All Items

	First Half		Second Half
Number of Items:	16		16
Mean:	53.358		56.253
Sum:	7150.000		7538.000
Standard Deviation:	6.013		5.314
Variance:	36.155		28.234
Cronbach's Alpha:	.627		.524
Correlation between first and second half:		.342	
Correlation for corrected attenuation:		.598	
Split -half Reliability:		.510	
Guttman Split-half Reliability:		.507	

Collectivism Items

	First Half		Second Half
Number of Items:	8		8
Mean:	29.029		29.649
Sum:	3890.000		3973.000
Standard Deviation:	3.840		3.754
Variance:	14.745		14.093
Cronbach's Alpha:	.628		.595
Correlation between first and second half:		.427	
Correlation for corrected attenuation:		.698	
Split -half Reliability:		.598	
Guttman Split-half Reliability:		.598	

Individualism Items

	First Half		Second Half
Number of Items:	8		8
Mean:	24.328		26.604
Sum:	3260.000		3565.000
Standard Deviation:	4.196		3.370
Variance:	17.608		11.358
Cronbach's Alpha:	.606		.376
Correlation between first and second half:		.216	
Correlation for corrected attenuation:		.452	
Split-half Reliability:		.355	
Guttman Split-half Reliability:		.348	

The results obtained from the correlation analysis, Cronbach's Alpha, and the split-half procedure provide positive results concerning the validity and reliability of the Revised Berg-Wiebe Resource Exchange Scale, the Short-form Minnesota Satisfaction Questionnaire, and the Individualism-Collectivism Scale. The results suggested that the scales were appropriate for use in this study.

Demographics

The questionnaire was administered to the employees of a medium size health care facility in the Delta Region of the State of Mississippi. The surveys were distributed to each participant by their supervisor. The respondents were instructed to fill out the surveys anonymously and return them to their supervisors in a sealed envelope provided. The supervisors collected the surveys, placed them in a sealed envelope provided, and returned them to the facility's administration office where the investigator collected them for data analysis and interpretation.

Demographic Information

At the time of this study the health care facility employed 175 individuals. Of the total 175 surveys administered, a total of 140 were returned for a response rate of 80.0%. Of these respondents, six could not be used due to insufficient responses to the questionnaire. Of the 134 acceptable responses, 21 (15.7%) were males while 113 (84.3%) were females. The breakdown of respondents according to race was: White - 78 (58.2%), African American - 52 (38.8%), and others - 4 (3.0%). Marital status of the respondents was: married - 79 (59%), single - 25 (18.7%), widowed - 15 (11.2%), divorced - 11 (8.2%), with 4 choosing not to answer the marital question. The respondents' ages ranged from 18 to over 65 with an average age of 43.67 and a standard deviation of 3.36 years. The majority of the ages of the respondents was in the category of 35 to 44, 44 respondents (32.8%) and 45 to 54, 35 respondents (26.1%). Two respondents chose not to answer the question concerning age. A large percentage of the respondents were either high school graduates/GED's - 32 (23.9%), had some college/tech school - 53 (39.6%), or were college graduates - 28 (20.9%). Small percentages of the respondents either had some high school - 15 (11.2%) or had postgraduate work - 5 (3.7%). One respondent did not answer the education question. Many of the respondents reported that their economic status during their years as a child as either being comfortable - 88 (65.7%), having more than others 15 (11.2%), or having bare necessities - 22 (16.4%). Only small percentages of respondents answered the question concerning their economic status as lacked necessities - 1 (.7%), on welfare - 6 (4.5%), or as wealthy - 1 (.7%). One respondent chose not to answer the economics question. The breakdown of respondents according to occupation was: nurse - 31 (23.1%), certified nurse assistant - 12 (9.0%), clerical - 23 (17.2 %), management - 10 (7.5%), lab technician - 8 (6.0%), medical records technician - 2 (1.5%), respiratory therapists - 2 (1.5%), x-ray technician - 6 (4.5%), x-ray assistant - 1 (.7%), physician - 2 (1.5%), house keeping - 10 (7.5%), pharmacists - 2 (1.5%), pharmacy technician - 2 (1.5%), dietary - 13 (9.7%), maintenance - 5 (3.7%) and volunteers - 5 (3.7%). The amount of time the respondents worked in the health care field ranged from 1 to 45 years with an average of 13.02 and a standard deviation of 9.95 years. The respondents reported working for the employer in this study from 1 to 45 years with an average of 8.66 and a standard deviation of 8.38 years. The number of years respondents reported living in the Delta Region of Mississippi ranged from 1 to 78 with an average of 33.73

and a standard deviation of 17.18 years. Five respondents chose not to answer the question concerning the amount of time working in the Delta, while 7 chose not to answer the question concerning the years worked for the employer. and 3 chose not to answer the question concerning years lived in the Delta region. Tables 11 and 12 provide a summary of the demographic information.

Table 11

Selected Demographics
Gender, Race, Marital Status, Age

Category	Number	Percentage
Gender		
Male	21	15.7
Female	113	84.3
Total Responses	134	100.0
Race		
White	78	58.2
African American	52	38.8
Hispanics	0	0
Other	4	3.0
Total Responses	134	100.0
Marital Status		
Married	79	59.0
Single	25	18.7
Widowed	15	11.2
Divorced	11	8.2
Left Blank	4	3.0
Total Responses	134	100.0
Age		
18-34	28	20.9
35-44	44	32.8
45-54	35	26.1
55-64	17	12.7
65 - over	8	6.0
Left Blank	2	1.5
Total Responses	134	100.0

Average: 43.67 Standard Deviation: 3.36

Table 12

Selected Demographics
Education, Economic Status, Occupation

Category	Number	Percentage
Education		
Some High School	15	11.2
HS Graduate/GED	32	23.9
Some College/Tech School	53	39.6
College Graduate	28	20.9
Post Graduate	5	3.7
Left Blank	1	.7
Total Responses	134	100.0
Economic Status		
Lacked Necessities	1	.7
On Welfare	6	4.5
Had Bare Necessities	22	16.4
Comfortable	88	65.7
Had More Than Others	15	11.2
Wealthy	1	.7
Left Blank	1	.7
Total Responses	134	100.0
Occupation		
Nurse	31	23.1
Certified Nurse Assistant	12	9.0
Clerical	23	17.2
Management	10	7.5
Lab Technician	8	6.0
Medical Records Technician	2	1.5
Respiratory Therapists	2	1.5
X-Ray Technician	6	4.5
X-Ray Assistant	1	.7
Physician	2	1.5
House Keeping	10	7.5
Pharmacists	2	1.5
Pharmacy Technician	2	1.5
Dietary	13	9.7
Maintenance	5	3.7
Volunteers	5	3.7
Total Responses	134	100.0

The Individualism- Collectivism Scale was utilized in this study to divide the sample into those individuals who perceived themselves as performing their jobs in "naturally occurring" work groups or collectivistic and those individuals who perceived themselves as performing their jobs as individuals. The responses to the survey were coded where an individual with an overall negative score was classified as "individualistic" and an individual with an overall positive score was classified as "collectivist." A majority of the individuals in this study were classified as collectivists. The classification of the individuals by their occupation is shown is presented in Table 13.

Table 13

Occupations Categorized by Collectivists and Individualists

Occupation	Collectivists	Individualists	Totals
Nurse	23	4	27
Certified Nurse Assistant	11	0	11
Clerical	20	3	23
Management	9	1	10
Lab Technician	7	1	8
Medical Records Technician	2	0	2
Respiratory Therapists	2	0	2
X-Ray Technician	2	1	3
X-Ray Assistant	1	0	1
Physician	1	1	2
House Keeping	6	4	10
Pharmacists	1	1	2
Pharmacy Technician	1	0	1
Dietary	9	3	12
Maintenance	4	1	5
Volunteers	3	2	5
Totals	102	22	124
Not Identified by Occupation			10
Total			134

Analysis of Demographics

Additional results were obtained when the various instruments making up the questionnaire utilized in this study were evaluated using the demographics. The areas evaluated included: gender, race, marital status, economic status, occupation, age, education, length of employment in healthcare, length of time working for employer, and length of time living in the Delta. Each of these demographics was compared with the overall satisfaction score of the Revised Berg/Wiebe Resource Exchange Scale, the overall satisfaction score of the Short-form Minnesota Satisfaction Questionnaire, and the overall score for the Individualism-Collectivism Scale. The results are presented in Tables 14, 15, and 16.

T-tests were used to compare the mean scores of race and gender with the overall mean scores for the Revised Berg/Wiebe Resource Exchange Scale, the Short-form Minnesota Satisfaction Questionnaire, and the Individualism-Collectivism Scale. No significant differences were found.

An ANOVA test was used to compare the scores of marital status, economic status, and occupation with the overall scores of the Revised Berg/Wiebe Resource Exchange Scale, the Short-form Minnesota Satisfaction Questionnaire, and the Individualism-Collectivism Scale. No significant differences were found.

A Spearman Rank correlation was used to examine the relationships between the level of age and education and the overall scores of the Revised Berg/Wiebe Resource Exchange Scale, the Short-form Minnesota Satisfaction Questionnaire, and the Individualism-Collectivism Scale. No significant relationships were found.

Table 14

Demographic Results Compared to the Overall Satisfaction Score of the Revised Berg/Wiebe Resource Exchange Scale

T-Test Results

Category	Test Statistic	P-Level	Critical Value of t (.05)	Significant Difference
Gender/Satisfaction:	-.103	.918	1.960	No
Race/ Satisfaction:	.016	.987	1.960	No

Analysis of Variance

Category	F Score	P Value	Critical Value of F (.05)	Significant Difference
Marital Status	.664	.576	2.68	No
Economic Status	.454	.810	2.29	No
Occupation	1.193	.287	1.75	No

Spearman Correlation Analysis Results

Category	Spearman R	P-Level	Significant Difference
Age/Satisfaction:	.034	.693	No
Education/Satisfaction:	.009	.917	No

Pearson Correlation Analysis Results

Category	Correlation Coefficient	P-Level	Significant
Length of Employment in Healthcare	-.016	.856	No
Length of Time Working for Employer	-.112	.214	No
Length of Time Lived in the Delta	-.161	.070	No

Table 15

Demographic Results Compared to the Overall Satisfaction Score of the Short-form Minnesota Satisfaction Questionnaire

T-Test Results

Category	Test Statistic	P-Level	Critical Value of t (.05)	Significant Difference
Gender/Satisfaction:	1.355	.178	1.960	No
Race/ Satisfaction:	.453	.651	1.960	No

Analysis of Variance

Category	F Score	P Value	Critical Value of F (.05)	Significant Difference
Marital Status	1.028	.383	2.68	No
Economic Status	.320	.900	2.29	No
Occupation	1.354	.182	1.75	No

Spearman Correlation Analysis Results

Category	Spearman R	P-Level	Significant Difference
Age/Satisfaction:	.052	.565	No
Education/Satisfaction:	-.025	.776	No

Pearson Correlation Analysis Results

Category	Correlation Coefficient	P-Level	Significant
Length of Employment in Healthcare	.042	.633	No
Length of Time Working for Employer	-.057	.526	No
Length of Time Living in the Delta	-.121	.170	No

Table 16

Demographic Results Compared to the Overall Score of the Individualism-Collectivism Scale

T-Test Results

Category	Test Statistic	P-Level	Critical Value of t (.05)	Significant Difference
Gender/Individ-Collect	-1.799	.074	1.960	No
Race/Individ-Collect:	.108	.914	1.960	No

Analysis of Variance

Category	F Score	P Value	Critical Value of F (.05)	Significant Difference
Marital Status	.421	.738	2.68	No
Economic Status	1.705	.138	2.29	No
Occupation	1.643	.073	1.75	No

Spearman Correlation Analysis Results

Category	Spearman R	P-Level	Significant Difference
Age/Individ-Collect:	.036	.683	No
Education/Individ-Collect:	-.029	.739	No

Pearson Correlation Analysis Results

Category	Correlation Coefficient	P-Level	Significant
Length of Employment in Healthcare	.024	.789	No
Length of Time Working for Employer	.039	.660	No
Length of Time Living in the Delta	-.025	.776	No

Pearson Product Moment correlation analysis was used to examine the relationships between the length of time employed in health care, length of time worked for employer, and the length of time lived in the Delta region of Mississippi and the overall scores of the Revised Berg Wiebe Resource Exchange Scale, the Short-form Minnesota Satisfaction Questionnaire, and the Individualism-Collectivism Scale. No significant relationships were found.

No significant relationships were found in the analysis comparing each of the demographics with the overall scores from the Revised Berg-Wiebe Resource Exchange Scale, the Short-form Minnesota Satisfaction Questionnaire, and the Individualism-Collectivism Scale. Therefore, the results revealed that the demographic variables would not change the results of the hypotheses tested in this study.

Hypotheses Testing

Hypotheses 1 and 2 were based on the circumplex developed by Foa and Foa (1974) concerning Resource Exchange Theory. The circumplex was presented in Figure 1 in Chapter II of this dissertation. The Revised Berg/Wiebe Resource Exchange Scale was utilized to measure the satisfaction with the exchange of resources according to their proximity. Hypotheses 1 and 2 did not include the variable "work itself" derived by Berg and Wiebe (1986, 1989). The authors concluded that further research was needed to determine where the new variable would appear on the circumplex.

For hypotheses 3, 4, 5, and 6, the Revised Berg/Wiebe Resource Exchange Scale was utilized to measure the exchange of items that represented intrinsic resources and extrinsic resources. Hypotheses 1, 3, and 5 tested the exchange of resources that have been examined in the literature concerning Foa and Foa's (1974) Resource Exchange

Theory without consideration of the subjects' perceptions of whether they were performing their jobs as collectivistic or individualistic.

Hypotheses 2, 4, and 6 tested the same exchanges of resources that were tested in Hypothesis 1, 3, and 5 utilizing the Individualism-Collectivism Scale to attempt to establish domains for the exchange of the resources as predicted by Resource Exchange Theory. The responses to the Individualism-Collectivism Scale were coded where an individual with an overall negative score was classified as "individualistic" and an individual with an overall positive score was classified as "collectivist." Responses to the scale were combined with the employees' responses to the satisfaction of the exchange of resources in the work place indicated on the Revised Berg/Wiebe Resource Exchange Scale.

Hypothesis 1

H1. Individuals will have a higher level of satisfaction for the exchange of resources that are closer in proximity than those resources that are further apart in proximity.

Hypothesis 1 examined the level of satisfaction with the exchange of resources at the work place as it relates to proximity. Previous research based upon the work of Foa and Foa (1974) has indicated that resources that are close in proximity show a higher level of satisfaction than those that are farther apart do. To test this hypothesis, the Revised Berg/Wiebe Resource Exchange Scale, developed from the research conducted by Foa and Foa (1974) in the area of Resource Exchange Theory, was utilized to measure the satisfaction with the exchange of the resources: love, status, information, services and money. To evaluate this hypothesis, the resources were divided into three categories utilizing the circumplex derived by Foa and Foa (1974). These categories included resources once removed, twice removed, and three times removed from each. The categories are presented in Table 17.

Table 17

Categories of Resources for the Examination of the Effect That Proximity Has on Satisfaction

Resources Once Removed:
Love/Status
Status/Information
Information/Money
Service/Love
Resources Twice Removed:
Love/Information
Money/Service
Service/Status
Resources Three Times Removed:
Love/Money
Information/Services

The categories of resources became the variables examined in Hypothesis 1 and are presented in Table 18.

Table 18

Variables Examined in Hypothesis 1

Once Removed
Twice Removed
Three Times Removed

Once the resources were divided into the three groups, the mean satisfaction scores for the exchange of resources were obtained for each category. Student's t-tests were used to determine if there are any significant differences in the means of the resources for each category (Mason and Lind, 1993, 1996). Therefore, the t-tests were used to determine if those resources close in proximity have a higher level of satisfaction than those farther apart in proximity.

To enhance the understanding of the analysis that was employed, hypothesis 1 was broken down into specific sub-hypotheses. These hypotheses are:

1a. $\mu_{\text{once removed}} = \mu_{\text{twice removed}}$

1b. $\mu_{\text{once removed}} = \mu_{\text{three times removed}}$

1c. $\mu_{\text{twice removed}} = \mu_{\text{three times removed}}$

Hypothesis 1a: $\mu_{\textbf{once removed}} = \mu_{\textbf{twice removed}}$

The t-test procedure was employed to determine if there was any difference between the means of the resources once removed and twice removed. The t value was calculated ($t = 1.465$, p value = .145) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.960). No significant difference was indicated in the level of satisfaction between those resources once removed and those twice removed.

Hypothesis 1b: $\mu_{\textbf{once removed}} = \mu_{\textbf{three times removed}}$

The t-test procedure was employed to determine if there was any difference between the means of the resources once removed and three times removed. The t value was calculated ($t = 3.613$, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.960). A significant difference was indicated in the level of satisfaction between those resources once removed and those three times removed.

Hypothesis 1c: $\mu_{\text{twice removed}} = \mu_{\text{three times removed}}$

The t-test procedure was employed to determine if there was any difference between the means of the resources twice removed and three times removed. The t value was calculated ($t = 2.511$, p value = .013) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.960). A significant difference was indicated in the level of satisfaction between those resources twice removed and those three times removed.

The results in Table 19 offer support for Hypothesis 1. A significant difference was found for the level of satisfaction for resources once removed and those twice removed when compared to the level of satisfaction for resources three times removed.

Table 19

Results of T-test for Examining the Effect of Proximity on Satisfaction Hypothesis 1

Hypothesis	Test Statistic	P Value	Critical Value of t (.05)	Significant Difference
1a $\mu_{\text{once}} = \mu_{\text{twice}}$	1.465	.145	1.960	No
1b $\mu_{\text{once}} = \mu_{\text{three}}$	3.613	.000	1.960	Yes
1c $\mu_{\text{twice}} = \mu_{\text{three}}$	2.511	.013	1.960	Yes

Means and Standard Deviations

Variable	N	Mean	Standard Deviation
Once Removed	133	.7171	.7944
Twice Removed	133	.6720	.7963
Three Times Removed	134	.5690	.8845

Hypothesis 2

H2. Individuals who perceive themselves as performing their jobs in "naturally occurring" work groups (collectivistic) will have a higher level of satisfaction for the exchange of resources that are closer in proximity than those resources that are farther apart in proximity while those who perceive themselves as performing their jobs as individuals (individualistic) will not have a significant difference in their level of satisfaction.

Hypothesis 2 attempted to establish domains as described by Deutsch (1975) for the exchange of resources in the work place as they relate to proximity as predicted in Hypothesis 1. The Revised Berg/Wiebe Resource Exchange Scale was utilized to examine the level of satisfaction of individuals who perceived themselves as performing their jobs in "naturally occurring" work groups and those individuals that perceived themselves as performing their jobs as individuals with the exchange of resources at the work place as it relates to proximity. Previous research based upon the work of Foa and Foa (1974) has indicated that resources that are close in proximity show a higher level of satisfaction than those do that are farther apart.

For this hypothesis, the sample was divided into two groups utilizing the Individualism-Collectivism Scale. The two groups were those individuals who perceived themselves as performing their jobs in "naturally occurring" work groups (collectivistic) and those who perceived themselves as performing their jobs as individuals (individualistic). As in Hypothesis 1, the resources were divided into three categories made up of resources that were once removed, twice removed, and three times removed from each other that are presented in Table 17. The categories became the variables examined in Hypothesis 2 after they were grouped according to the Individualism-Collectivism Scale. These variables are presented in Table 20.

Table 20
Variables Examined in Hypothesis 2
Collectivistic
Once Removed - Collectivism
Twice Removed - Collectivism
Three Times Removed - Collectivism
Individualistic
Once Removed - Individualism
Twice Removed - Individualism
Three Times Removed - Individualism

Once the resources were divided into the three groups, the mean satisfaction scores for the exchange of resources in each category were obtained for those individuals who perceived themselves as performing their jobs in groups (collectivistic) and for those individuals who perceived themselves as performing their jobs as individuals (individualistic). Student's t-tests were used to determine if there are any significant differences in the means of the resources for each category for each type of individuals (Mason and Lind, 1993, 1996). Therefore, the t-tests were used to determine if the level of satisfaction for the resources close in proximity was higher than those farther apart in proximity for "collectivistic" individuals and "individualistic" individuals.

Hypothesis 2 was broken down into specific sub-hypotheses for those individuals who perceived themselves as collectivistic or as performing their jobs in groups. These hypotheses are:

2a $\mu_{\text{once removed collectivistic}} = \mu_{\text{twice removed collectivistic}}$

2b $\mu_{\text{once removed collectivistic}} = \mu_{\text{three times removed collectvistic}}$

2c $\mu_{\text{twice removed collectivistic}} = \mu_{\text{three times removed collectivistic}}$

Hypothesis 2 was also broken down into specific sub-hypotheses for those individuals who perceived themselves as individualistic or as performing their jobs as individuals. These hypotheses are:

2d $\mu_{\text{once removed individualistic}} = \mu_{\text{twice removed individualistic}}$

2e $\mu_{\text{once removed individualistic}} = \mu_{\text{three times removed individualistic}}$

2f $\mu_{\text{twice removed individualistic}} = \mu_{\text{three times removed individualistic}}$

Hypothesis 2a: $\mu_{\text{once removed collectivistic}} = \mu_{\text{twice removed collectivistic}}$

The t-test procedure was employed to determine if there was any difference between the means for those resources once removed and those twice removed for "collectivistic" individuals. The t value was calculated (t = 1.511, p value = .134) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.980). No significant difference was indicated in the level of satisfaction for collectivistic individuals for those resources once removed and those twice removed.

Hypothesis 2b: $\mu_{\text{once removed collectivistic}} = \mu_{\text{three times removed collectivistic}}$

The t-test procedure was employed to determine if there was any difference between the means for those resources once removed and those three times removed for "collectivistic" individuals. The t value was calculated (t = 2.611, p value = .010) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.980). A significant difference was indicated in the level of satisfaction for collectivistic individuals for those resources once removed and those three times removed.

Hypothesis 2c: $\mu_{\text{twice removed collectivistic}} = \mu_{\text{three times removed collectivistic}}$

The t-test procedure was employed to determine if there was any difference between the means for those resources twice removed and those three times removed for "collectivistic" individuals. The t value was calculated (t = 1.707, p value = .091) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.980). No significant difference was indicated in the level of satisfaction for collectivistic individuals for those resources twice removed and those three times removed.

Hypothesis 2d: $\mu_{\text{once removed individualistic}} = \mu_{\text{three times removed individualistic}}$

The t-test procedure was employed to determine if there was any difference between the means for those resources once removed and those twice removed for "individualistic" individuals. The t value was calculated (t = -.107, p value = .916) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 2.086). No significant difference was indicated in the level of satisfaction for individualistic individuals for those resources once removed and those twice times removed.

Hypothesis 2e: $\mu_{\text{once removed individualistic}} = \mu_{\text{three times removed individualistic}}$

The t-test procedure was employed to determine if there was any difference between the means for those resources once removed and those three times removed for "individualistic" individuals. The t value was calculated (t = 2.546, p value = .019) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 2.086). A significant difference was indicated in the level of satisfaction for individualistic individuals for those resources once removed and those three times removed.

Hypothesis 2f: $\mu_{\text{twice removed individualistic}} = \mu_{\text{three times removed individualistic}}$

The t-test procedure was employed to determine if there was any difference between the means for those resources twice removed and those three times removed for "individualistic" individuals. The t value was calculated ($t = 2.221$, p value $= .037$) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of $t = 2.080$). A significant difference was indicated in the level of satisfaction for individualistic individuals for those resources twice removed and those three times removed.

A summary of the results obtained through the employment of the t-tests for analysis of this hypothesis is presented in Table 21.

Simple Regression Analysis

A simple regression analysis was used to evaluate the between the level of satisfaction with resources once removed, twice removed, three times removed and the Individualism-Collectivism score. The results are summarized in Table 22. For the Individualism-Collectivism score and resources once removed, the adjusted R^2 of -.002 was not significant at the .05 level of significance (calculated $F = .695$, $p = .695$, critical value of $F = 3.84$). The beta weight .073 was not significant at the .05 level of significance (calculated $t = .833$, $p = .406$, critical value of $t = 1.960$). The adjusted R^2 of .001 for the Individualism-Collectivism score and resources twice removed was not significant at the .05 level of significance (calculated $F = 1.182$, $p = .279$, critical value of $F = 3.84$). The beta weight .095 was not significant at the .05 level of significance (calculated t = 1.087, p = .279, critical value of t = 1.960). The adjusted R^2 of .012 for the Individualism-Collectivism score and resources three times removed was not significant at the .05 level of significance (calculated F = 2.664, p = .105, critical value of F = 3.84). The beta weight .141 was not significant at the .05 level of significance (calculated t = 1.632, p = .105, critical t value = 1.960). A Chow test was conducted to explore the relationships between the beta weights (Fisher, 1970; Johnston, 1984; Schmidt and Sickles, 1977). The necessary residual sums of squares were calculated. The F value was calculated (F = 21.58, p =.000) and compared with the critical value of F that was appropriate at the .05 level of significance (critical value of F = 3.84). A significant difference was indicated in the beta weights for the regressions for the resources once removed, twice removed, three times removed and the Individualism-Collectivism score.

The results in Tables 21 and 22 show some support for Hypothesis 2. The t-tests showed a significant difference in the level of satisfaction for collectivistic individuals for resources once removed and for those resources three times removed. No significant difference was found in the level of satisfaction for individualistic individuals for resources once removed and for those three times removed. Although each beta weight was not significant in the regression analysis, the slopes of the lines and the other coefficients making up the regression equation for each of the resources were positive and increasing in size from the resources once removed moving out to the resources three times removed. The Chow test also indicated there was a significant difference in the slopes of the lines. Therefore, these results do suggested that there is a positive relationship between the resources once removed, twice removed, three times removed, and the Individualism-Collectivism score.

Table 21

Results of T-test for Examining the Effect of Proximity on Satisfaction Utilizing Individualism-Collectivism Hypothesis 2

Hypothesis	Test Statistic	P Value	Critical Value of t (.05)	Significant Difference
2a $\mu_{\text{once collect}} = \mu_{\text{twice collect}}$	1.511	.134	1.980	No
2b $\mu_{\text{once collect}} = \mu_{\text{three collect}}$	2.611	.010	1.980	Yes
2c $\mu_{\text{twice collect}} = \mu_{\text{three collect}}$	1.707	.091	1.980	No
2d $\mu_{\text{once individ}} = \mu_{\text{twice individ}}$	-.107	.916	2.086	No
2e $\mu_{\text{once individ}} = \mu_{\text{three individ}}$	2.546	.019	2.086	Yes
2f $\mu_{\text{twice individ}} = \mu_{\text{three individ}}$	2.221	.037	2.080	Yes

Means and Standard Deviations

Variable	N	Mean	Standard Deviation
Once Removed - Collectivism	102	.5057	.3948
Twice Removed - Collectivism	102	.4842	.3948
Three Times Removed - Collectivism	102	.4475	.4508
Once Removed - Individualism	21	.3326	.5360
Twice Removed - Individualism	22	.2933	.5517
Three Times Removed - Individualism	22	.2109	.5565

Table 22

Results of Simple Regression of Satisfaction with Proximity of Resources on Individualism-Collectivism Score Hypothesis 2

Independent Variable: Satisfaction Resources Once Removed
Dependent Variable: Individualism-Collectivism Score

Variable	Coefficient	SE B	Beta	Value of t	P Value	Critical t (.05)	Significant Difference
Satisfaction Once Removed	.741	.889	.073	.833	.406	1.960	No
(Constant)	6.115	.949		6.443	.000	1.960	Yes

R	.073	R Square	.005
Adjusted R Square	-.002	Standard Error	8.1112

Independent Variable: Satisfaction Resources Twice Removed
Dependent Variable: Individualism-Collectivism Score

Variable	Coefficient	SE B	Beta	Value of t	P Value	Critical t (.05)	Significant Difference
Satisfaction Twice Removed	.964	.886	.095	1.087	.279	1.960	No
(Constant)	5.984	.922		6.493	.000	1.960	Yes

R	.095	R Square	.009
Adjusted R Square	.001	Standard Error	8.1105

Independent Variable: Satisfaction Resources Three Times Removed
Dependent Variable: Individualism-Collectivism Score

Variable	Coefficient	SE B	Beta	Value of t	P Value	Critical t (.05)	Significant Difference
Satisfaction Three Times Removed	1.289	.790	.141	1.632	.105	1.960	No
(Constant)	5.849	.828		7.060	.000	1.960	Yes

R	.141	R Square	.020
Adjusted R Square	.012	Standard Error	8.0555

Hypothesis 3

H3. Individuals will have a higher level of overall satisfaction for the intrinsic resources love, status, information, work itself, and service than that of the extrinsic resource money.

This hypothesis examined the level of satisfaction of individuals with the exchange of resources in the work place as it relates to the intrinsic resources love, status, information, service and work itself as compared to the level of satisfaction for the extrinsic resource money. Previous research by the Foas and their associates concerning Resource Exchange Theory concluded that the level of overall satisfaction for intrinsic resources has been greater than that for extrinsic resources. To test this hypothesis, data was accumulated utilizing the Revised Berg/Wiebe Resource Exchange Scale for the intrinsic resources love, status, information, service and work itself and for the extrinsic resource money. These resources became the variables examined in Hypothesis 3 and are presented in Table 23.

Table 23

Variables Examined in Hypothesis 3

Intrinsic
Love
Status
Service
Work Itself
Information
Extrinsic
Money

The mean satisfaction score for the exchanges of each intrinsic resource and the extrinsic resource money was obtained. Student's t-tests were used for analysis to determine if there was any significant difference in the means of each intrinsic resource and the extrinsic resource money (McClave, Benson, and Sincich, 1998). The t-tests were used to determine if the overall satisfaction for the intrinsic resources was greater than that of the extrinsic resource money.

Hypothesis 3 was broken down into specific sub-hypotheses for comparing the level of satisfaction with each intrinsic resource with the extrinsic resource money. These hypotheses are:

3a. $\mu_{\text{love}} = \mu_{\text{money}}$

3b. $\mu_{\text{status}} = \mu_{\text{money}}$

3c. $\mu_{\text{service}} = \mu_{\text{money}}$

3d. $\mu_{\text{work itself}} = \mu_{\text{money}}$

3e. $\mu_{\text{information}} = \mu_{\text{money}}$

Hypothesis 3a: $\mu_{\text{love}} = \mu_{\text{money}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource love and the resource money. The t value was calculated ($t = 6.086$, p value $= .000$) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of $t = 1.960$). A significant difference was indicated in the level of satisfaction between the resource love and the resource money.

Hypothesis 3b: $\mu_{\text{status}} = \mu_{\text{money}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource status and the resource money. The t value was calculated ($t = 5.097$, p value $= .000$) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t =

1.960). A significant difference was indicated in the level of satisfaction between the resource status and the resource money.

<u>Hypothesis 3c</u>: $\mu_{\text{service}} = \mu_{\text{money}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource service and the resource money. The t value was calculated (t = 5.362, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.960). A significant difference was indicated in the level of satisfaction between the resource service and the resource money.

<u>Hypothesis 3d</u>: $\mu_{\text{work itself}} = \mu_{\text{money}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource work itself and the resource money. The t value was calculated (t = 5.039, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.960). A significant difference was indicated in the level of satisfaction between the resource work itself and the resource money.

<u>Hypothesis 3e</u>: $\mu_{\text{information}} = \mu_{\text{money}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource information and the resource money. The t value was calculated (t = 4.439, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t =

1.960). A significant difference was indicated in the level of satisfaction between the resource information and the resource money.

A summary of the results obtained through the employment of the t-tests for analysis of this hypothesis is presented in Table 24. The results offer support for Hypothesis 3. A significant difference was found in the level of satisfaction for the intrinsic resources love, status, service, work itself and information and the extrinsic resource money.

Table 24

Results of T-test for Comparing the Satisfaction With Intrinsic and Extrinsic Resources Hypothesis 3

Hypothesis	Test Statistic	P Value	Critical Value of t (.05)	Significant Difference
3a $\mu_{love} = \mu_{money}$	6.086	.000	1.960	Yes
3b $\mu_{status} = \mu_{money}$	5.097	.000	1.960	Yes
3c $\mu_{service} = \mu_{money}$	5.362	.000	1.960	Yes
3d $\mu_{work\ itself} = \mu_{money}$	5.039	.000	1.960	Yes
3e $\mu_{information} = \mu_{money}$	4.439	.000	1.960	Yes

Means and Standard Deviations

Variable	N	Mean	Standard Deviation
Love	132	.7300	.7649
Status	133	.7619	.7578
Service	132	.7114	.7753
Work Itself	132	.7475	.7937
Information	133	.6987	.7544
Money	133	.4950	.9781

Hypothesis 4

H4. Individuals who perceive themselves as performing their jobs in "naturally occurring" work groups (collectivistic) will have a higher level of overall satisfaction for the intrinsic resources love, status, information, work itself, and service than that of the extrinsic resource money while those who perceive themselves as performing their jobs as individuals (individualistic) will not have a significant difference in their level of overall satisfaction.

This hypothesis attempted to establish domains as described by Deutsch (1975) for the exchange of intrinsic resources and extrinsic resources in the work place as predicted in Hypothesis 3. This hypothesis examined the level of satisfaction of individuals who perceived themselves as performing their jobs in "naturally occurring" work groups and those who perceived themselves as performing their jobs as individuals with the exchange of resources in the work place as it relates to the intrinsic resources love, status, information, service and work itself as compared to the level of satisfaction for the extrinsic resource money. Previous research by the Foas and others on Resource Exchange Theory concluded that the level of overall satisfaction for intrinsic resources have been greater than that for extrinsic resources.

The Individualism-Collectivism Scale was used to divide the sample into two groups to evaluate this hypothesis. As in the evaluation of hypothesis 2, the groups were those individuals who perceived themselves as performing their jobs in "naturally occurring" work groups (collectivistic) and those who perceived themselves as performing their jobs as individuals (individualistic). Data was collected utilizing the Revised Berg-Wiebe Resource Exchange Scale for the intrinsic resources love, status, information, service, work itself and for the extrinsic resource money. These resources were categorized using the Individualism-Collectivism Scale and these categories became the variables examined in Hypothesis 4. The variables are presented in Table 25.

Table 25
Variables Examined in Hypothesis 4
Intrinsic - Collectivism
Love - Collectivism
Status - Collectivism
Service - Collectivism
Work Itself - Collectivism
Information - Collectivism
Extrinsic - Collectivism
Money - Collectivism
Intrinsic - Individualistic
Love - Individualism
Status - Individualism
Service - Individualism
Work Itself - Individualism
Information - Individualism
Extrinsic - Individualism
Money - Individualism

The mean satisfaction score for the exchanges of each intrinsic resource and the extrinsic resource money was obtained for those individuals who perceived themselves as working in groups (collectivistic) and for those individuals who perceived themselves as working as individuals (individualistic). Student's t-tests were used for analysis to determine if there was any significant difference in the means of each intrinsic resource and the extrinsic resource money for each group of individuals (McClave, Benson, and Sincich, 1998). The t-tests were used to determine if the overall satisfaction for the intrinsic resources was greater than that of the extrinsic resource money for "collectivistic" individuals and "individualistic" individuals.

As with hypotheses 3, hypothesis 4 was broken down into specific sub-hypotheses for individuals who perceived themselves as collectivistic or performing their jobs in groups. These hypotheses are:

4a. $\mu_{\text{love collectivistic}} = \mu_{\text{money collectivistic}}$
4b. $\mu_{\text{status collectivistic}} = \mu_{\text{money collectivistic}}$
4c. $\mu_{\text{service collectivistic}} = \mu_{\text{money collectivistic}}$
4d. $\mu_{\text{work itself collectivistic}} = \mu_{\text{money collectivistic}}$
4e. $\mu_{\text{information collectivistic}} = \mu_{\text{money collectivistic}}$

Hypothesis 4 was also broken down into specific sub-hypotheses for those individuals who perceived themselves as individualistic or as performing their jobs as individuals. These hypotheses are:

4f. $\mu_{\text{love individualistic}} = \mu_{\text{money individualistic}}$
4g. $\mu_{\text{status individualistic}} = \mu_{\text{money individualistic}}$
4h. $\mu_{\text{service individualistic}} = \mu_{\text{money individualistic}}$
4i. $\mu_{\text{work itself individualistic}} = \mu_{\text{money individualistic}}$
4j. $\mu_{\text{information individualistic}} = \mu_{\text{money individualistic}}$

Hypothesis 4a: $\mu_{\textbf{love collectivistic}} = \mu_{\textbf{money collectivistic}}$

The t-test procedure was employed to determine if there was any difference between the means for the resource love and the resource money for "collectivistic" individuals. The t value was calculated ($t = 5.533$, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of $t = 1.980$). A significant difference was indicated in the level of satisfaction between the resource love and the resource money for collectivistic individuals.

Hypothesis 4b: $\mu_{\text{status collectivistic}} = \mu_{\text{money collectivistic}}$

The t-test procedure was employed to determine if there was any difference between the means for the resource status and the resource money for "collectivistic" individuals. The t value was calculated (t = 4.405, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.980). A significant difference was indicated in the level of satisfaction between the resource status and the resource money for collectivistic individuals.

Hypothesis 4c: $\mu_{\text{service collectivistic}} = \mu_{\text{money collectivistic}}$

The t-test procedure was employed to determine if there was any difference between the means for the resource service and the resource money for "collectivistic" individuals. The t value was calculated (t = 5.001, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.980). A significant difference was indicated in the level of satisfaction between the resource service and the resource money for collectivistic individuals.

Hypothesis 4d: $\mu_{\text{work itself collectivistic}} = \mu_{\text{money collectivistic}}$

The t-test procedure was employed to determine if there was any difference between the means for the resource work itself and the resource money for "collectivistic" individuals. The t value was calculated (t = 4.170, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.980). A significant difference was indicated in the level of satisfaction between the resource work itself and the resource money for collectivistic individuals.

Hypothesis 4e: $\mu_{\text{information collectivistic}} = \mu_{\text{money collectivistic}}$

The t-test procedure was employed to determine if there was any difference between the means for the resource information and the resource money for "collectivistic" individuals. The t value was calculated (t = 3.992, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.980). A significant difference was indicated in the level of satisfaction between the resource information and the resource money for collectivistic individuals..

Hypothesis 4f: $\mu_{\text{love individualistic}} = \mu_{\text{money individualistic}}$

The t-test procedure was employed to determine if there was any difference between the means for the resource love and the resource money for "individualistic" individuals. The t value was calculated (t = 2.021, p value = .058) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 2.093). No significant difference was indicated in the level of satisfaction between the resource love and the resource money for individualistic individuals.

<u>Hypothesis 4g</u>: $\mu_{\text{status individualistic}} = \mu_{\text{money individualistic}}$

The t-test procedure was employed to determine if there was any difference between the means for the resource status and the resource money for "individualistic" individuals. The t value was calculated (t = 2.135, p value = .045) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 2.086). A significant difference was indicated in the level of satisfaction between the resource status and the resource money for individualistic individuals.

<u>Hypothesis 4h</u>: $\mu_{\text{service individualistic}} = \mu_{\text{money individualistic}}$

The t-test procedure was employed to determine if there was any difference between the means for the resource service and the resource money for "individualistic" individuals. The t value was calculated (t = 1.394, p value = .179) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 2.086). No significant difference was indicated in the level of satisfaction between the resource service and the resource money for individualistic individuals.

<u>Hypothesis 4i</u>: $\mu_{\text{work itself individualistic}} = \mu_{\text{money individualistic}}$

The t-test procedure was employed to determine if there was any difference between the means for the resource work itself and the resource money for "individualistic" individuals. The t value was calculated (t = 2.596, p value = .017) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 2.086). A significant difference was indicated in the level of satisfaction between the resource work itself and the resource money for individualistic individuals.

<u>Hypothesis 4j</u>: $\mu_{\textbf{information individualistic}} = \mu_{\textbf{money individualistic}}$

The t-test procedure was employed to determine if there was any difference between the means for the resource information and the resource money for "individualistic" individuals. The t value was calculated (t = 1.042, p value = ..309) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 2.086). No significant difference was indicated in the level of satisfaction between the resource information and the resource money for individualistic individuals.

A summary of the results obtained through the employment of the t-tests for analysis of this hypothesis is presented in Table 26. The results offer some support for Hypothesis 4. A significant difference was found for the level of satisfaction of collectivistic individuals for the intrinsic resources love, status, service, work itself, and information and the extrinsic resource money. No significant difference was found in the level of satisfaction for individualistic individuals for the intrinsic resources love, service, and information and the extrinsic resource money.

Table 26

Results of T-test for Comparing the Satisfaction With Intrinsic and Extrinsic Resources Utilizing Individualism-Collectivism Hypothesis 4

Hypothesis	Test Statistic	P Value	Critical Value of t (.05)	Significant Difference
4a $\mu_{\text{love collect}} = \mu_{\text{money collect}}$	5.533	.000	1.980	Yes
4b $\mu_{\text{status collect}} = \mu_{\text{money collect}}$	4.405	.000	1.980	Yes
4c $\mu_{\text{service collect}} = \mu_{\text{money collect}}$	5.001	.000	1.980	Yes
4d $\mu_{\text{work itself collect}} = \mu_{\text{money collect}}$	4.170	.000	1.980	Yes
4e $\mu_{\text{inform collect}} = \mu_{\text{money collect}}$	3.992	.000	1.980	Yes
4f $\mu_{\text{love individ}} = \mu_{\text{money individ}}$	2.021	.058	2.093	No
4g $\mu_{\text{status individ}} = \mu_{\text{money individ}}$	2.135	.045	2.086	Yes
4h $\mu_{\text{service individ}} = \mu_{\text{money individ}}$	1.394	.179	2.086	No
4i $\mu_{\text{work itself individ}} = \mu_{\text{money individ}}$	2.596	.017	2.080	Yes
4j $\mu_{\text{inform individ}} = \mu_{\text{money individ}}$	1.042	.309	2.086	No

Means and Standard Deviations

Variable	N	Mean	Standard Deviation
Love - Collectivism	102	.5126	.3854
Status - Collectivism	102	.5292	.3744
Service - Collectivism	102	.5053	.3873
Work Itself - Collectivism	101	.5232	.3915
Information - Collectivism	101	.4982	.3808
Money - Collectivism	102	.3862	.4983
Love - Individualism	20	.3577	.5156
Status - Individualism	21	.3653	.5120
Service - Individualism	21	.3129	.5404
Work Itself - Individualism	21	.3772	.5123
Information - Individualism	22	.3018	.5314
Money - Individualism	22	.2526	.5706

Hypothesis 5

H5. Individuals will have a higher level of overall satisfaction for the intrinsic resources love, status, information, and work itself than that of the combined extrinsic resources money and service.

Research by Van Krevald and Van Beemen (1978) has shown that satisfaction for the resources love, status, and information is significantly greater than that of the resources money, goods, and services. The authors also concluded that the exchange of the intangible resources love, status, and information are more acceptable in exchange relationships than other resources. In several studies concerning resource exchange theory the resource service has been grouped with the resource goods. Questions have been raised in the research on Resource Exchange Theory providing evidence that the resource service might be viewed as an extrinsic resource such as that of goods or money (Foa and Stein, 1980; Lloyd, Cate, and Henton, 1982; Tornblom, Jonsson, and Foa, 1985; Tornblom and Foa, 1993). Hypotheses 5 and 6 were developed to test this research in question.

For Hypothesis 5, the resource service was combined with the extrinsic resource money. Data was accumulated for the intrinsic resources love, status, information and work itself and the combined extrinsic resources money and service utilizing the Revised Berg/Wiebe Resource Exchange Scale. These resources became the variables examined in Hypothesis 5 and are presented in Table 27.

The mean satisfaction score for the exchanges of each intrinsic resource and the combined extrinsic resources money and service was obtained. Student's t-tests were used for analysis to determine if there was any significant difference in the means of each intrinsic resource and the combined extrinsic resources money and service (McClave, Benson, and Sincich, 1998). The t-tests were used to determine if the overall satisfaction for the intrinsic resources was greater than that of the extrinsic resources.

Table 27 Variables Examined in Hypothesis 5
Intrinsic
Love
Status
Work Itself
Information
Extrinsic
Money & Service

As with hypothesis 3, hypothesis 5 was broken down into specific sub-hypotheses to compare the level of satisfaction with the exchange of intrinsic resources and the extrinsic resources. These hypotheses are:

5a. $\mu_{\text{love}} = \mu_{\text{money \& service}}$

5b. $\mu_{\text{status}} = \mu_{\text{money \& service}}$

5c. $\mu_{\text{work itself}} = \mu_{\text{money \& service}}$

5d. $\mu_{\text{information}} = \mu_{\text{money \& service}}$

Hypothesis 5a: $\mu_{\textbf{love}} = \mu_{\textbf{money \& service}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource love and the combined resources money and service. The t value was calculated ($t = 5.714$, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of $t = 1.960$). A significant difference was indicated in the level of satisfaction between the resource love and the combined resources money and service.

<u>Hypothesis 5b</u>: $\mu_{\text{status}} = \mu_{\text{money \& service}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource status and the combined resources money and service. The t value was calculated (t = 4.565, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.960). A significant difference was indicated in the level of satisfaction between the resource status and the combined resources money and service.

<u>Hypothesis 5c</u>: $\mu_{\text{work itself}} = \mu_{\text{money \& service}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource work itself and the combined resources money and service. The t value was calculated (t = 4.292, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.960). A significant difference was indicated in the level of satisfaction between the resource work itself and the combined resources money and service.

<u>Hypothesis 5d</u>: $\mu_{\text{information}} = \mu_{\text{money \& service}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource information and the combined resources money and service. The t value was calculated (t = 3.796, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.960). A significant difference was indicated in the level of satisfaction between the resource information and the combined resources money and service.

A summary of the results obtained through the employment of the t-tests for analysis of this hypothesis is presented in Table 28. The results offered support for Hypothesis 5. A significant difference was indicated in the level of satisfaction for the intrinsic resources love, status, work itself, and information and the combined extrinsic resources money and service.

Table 28

Results of T-test for Comparing the Satisfaction With Intrinsic and Extrinsic Resources Hypothesis 5

Hypothesis	Test Statistic	P Value	Critical Value of t (.05)	Significant Difference
5a $\mu_{\text{love}} = \mu_{\text{money \& service}}$	5.714	.000	1.960	Yes
5b $\mu_{\text{status}} = \mu_{\text{money \& service}}$	4.565	.000	1.960	Yes
5c $\mu_{\text{work itself}} = \mu_{\text{money \& service}}$	4.292	.000	1.960	Yes
5d $\mu_{\text{information}} = \mu_{\text{money \& service}}$	3.796	.000	1.960	Yes

Means and Standard Deviations

Variable	N	Mean	Standard Deviation
Love	132	.7300	.7649
Status	133	.7619	.7578
Work Itself	132	.7475	.7937
Information	133	.6987	.7544
Money & Service	132	.6038	.8540

Hypothesis 6

H6. Individuals who perceive themselves as performing their jobs in "naturally occurring" work groups (collectivistic) will have a higher level of overall satisfaction for the intrinsic resources love, status, information, and work itself than that of the combined extrinsic resources money and service while those who perceive themselves as performing their jobs as individuals (individualistic) will not have a significant difference in their level of overall satisfaction.

To evaluate this hypothesis, the sample was divided into two groups utilizing the Individualism-Collectivism Scale. As in the evaluation of hypothesis 2 and 4, the groups were those individuals who perceived themselves as performing their jobs in "naturally occurring" work groups (collectivistic) and those who perceived themselves as performing their jobs as individuals (individualistic). The level of satisfaction of the resource service was combined with the level of satisfaction of the extrinsic resource money. Data was collected for the intrinsic resources love, status, information, and work itself and the two extrinsic resources money and service utilizing the Revised Berg-Wiebe Resource Exchange Scale. These resources were categorized utilizing the Individualism-Collectivism Scale and became the variables examined in Hypothesis 6. These variables are presented in Table 29.

The mean satisfaction score for the exchanges of each intrinsic resource and the combined extrinsic resources money and service was obtained for those individuals who perceived themselves as working in groups (collectivistic) and for those individuals who perceived themselves as working as individuals (individualistic). Student's t-tests was used for analysis to determine if there was any significant difference in the means of each intrinsic resource and the combined extrinsic resources money and service for each group of individuals (McClave, Benson, and Sincich, 1998). The t-tests were used to determine if the overall satisfaction for the intrinsic resources was greater than that of the extrinsic resource for collectivistic individuals.

Table 29
Variables Examined in Hypothesis 6
Intrinsic - Collectivism
Love - Collectivism
Status - Collectivism
Work Itself - Collectivism
Information - Collectivism
Extrinsic - Collectivism
Money & Service - Collectivism
Intrinsic - Individualism
Love - Individualism
Status - Individualism
Work Itself - Individualism
Information - Individualism
Extrinsic - Individualism
Money and Service - Individualism

As with hypothesis 4, hypothesis 6 was broken down into specific sub-hypotheses for individuals who perceived themselves as collectivistic or performing their jobs in groups. These hypotheses are:

6a. $\mu_{\text{love collectivistic}} = \mu_{\text{money \& service collectivistic}}$

6b. $\mu_{\text{status collectivistic}} = \mu_{\text{money \& service collectivistic}}$

6c. $\mu_{\text{work itself collectivistic}} = \mu_{\text{money \& service collectivistic}}$

6d. $\mu_{\text{information collectivistic}} = \mu_{\text{money \& service collectivistic}}$

Hypothesis 6 was broken down into specific sub-hypotheses for those individuals who perceived themselves as individualistic or as performing their jobs as individuals. These hypotheses are:

6e. $\mu_{\text{love individualistic}} = \mu_{\text{money \& service collectivistic}}$

6f. $\mu_{\text{status individualistic}} = \mu_{\text{money \& service individualistic}}$

6g. $\mu_{\text{work itself individualistic}} = \mu_{\text{money \& service individualistic}}$

6h. $\mu_{\text{information individualistic}} = \mu_{\text{money \& service individualistic}}$

Hypothesis 6a: $\mu_{\textbf{love collectivistic}} = \mu_{\textbf{money \& service collectivistic}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource love and the combined resources money and service for "collectivistic" individuals. The t value was calculated (t = 5.122, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.980). A significant difference was indicated in the level of satisfaction between the resource love and the combined resources money and service for collectivistic individuals.

Hypothesis 6b: $\mu_{\textbf{status collectivistic}} = \mu_{\textbf{money \& service collectivistic}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource status and the combined resources money and service for "collectivistic" individuals. The t value was calculated (t = 3.796, p value = .000) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 1.980). A significant difference was indicated in the level of satisfaction between the resource status and the combined resources money and service for collectivistic individuals.

Hypothesis 6c: $\mu_{\text{work itself collectivistic}} = \mu_{\text{money \& service collectivistic}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource work itself and the combined resources money and service for "collectivistic" individuals. The t value was calculated ($t = 3.292$, p value = .001) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of $t = 1.980$). A significant difference was indicated in the level of satisfaction between the resource work itself and the combined resources money and service for collectivistic individuals.

Hypothesis 6d: $\mu_{\text{information collectivistic}} = \mu_{\text{money \& service collectivistic}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource information and the combined resources money and service for "collectivistic" individuals. The t value was calculated ($t = 2.884$, p value = .005) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of $t = 1.980$). A significant difference was indicated in the level of satisfaction between the resource information and the combined resources money and service for collectivistic individuals.

Hypothesis 6e: $\mu_{\text{love individualistic}} = \mu_{\text{money \& service individualistic}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource love and the combined resources money and service for "individualistic" individuals. The t value was calculated ($t = 1.890$, p value = .074) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of $t = 2.093$). No significant difference was indicated in the level of satisfaction between the resource love and the combined resources money and service for individualistic individuals.

Hypothesis 6f: $\mu_{\text{status individualistic}} = \mu_{\text{money \& service individualistic}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource status and the combined resources money and service for "individualistic" individuals. The t value was calculated ($t = 2.342$, p value = .030) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of $t = 2.086$). A significant difference was indicated in the level of satisfaction between the resource status and the combined resources money and service for individualistic individuals.

Hypothesis 6g: $\mu_{\text{work itself individualistic}} = \mu_{\text{money \& service individualistic}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource work itself and the combined resources money and service for "individualistic" individuals. The t value was calculated ($t = 2.763$, p value = .012) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of $t = 2.086$). A significant difference was indicated in the level of satisfaction between the resource work itself and the combined resources money and service for individualistic individuals.

Hypothesis 6h: $\mu_{\text{information individualistic}} = \mu_{\text{money \& service individualistic}}$

The t-test procedure was employed to determine if there was any difference between the means of the resource information and the combined resources money and service for "individualistic" individuals. The t value was calculated ($t = 1.952$, p value =

.065) and compared to the critical value of t that was appropriate for a two-tailed test at the .05 level of significance (critical value of t = 2.086). No significant difference was indicated in the level of satisfaction between the resource information and the combined resources money and service for individualistic individuals.

A summary of the results obtained through the employment of the t-tests for analysis of this hypothesis is presented in Table 30. The results offer some support for Hypothesis 6. A significant difference was indicated for the level of satisfaction for collectivistic individuals for the intrinsic resources love, status, work itself, and information and the combined extrinsic resources money and service. No significant difference was indicated for the level of satisfaction for individualistic individuals for the intrinsic resources love and information and the combined extrinsic resources money and service.

Table 30

Results of T-test for Comparing the Satisfaction With Intrinsic and Extrinsic Resources Utilizing Individualism- Collectivism Hypothesis 6

Hypothesis	Test Statistic	P Value	Critical Value of t(.05)	Significant Difference
6a $\mu_{\text{love collect}} = \mu_{\text{money \& service collect}}$	5.122	.000	1.980	Yes
6b $\mu_{\text{status collect}} = \mu_{\text{money \& service collect}}$	3.796	.000	1.980	Yes
6c $\mu_{\text{work itself collect}} = \mu_{\text{money \& service collect}}$	3.292	.001	1.980	Yes
6d $\mu_{\text{inform collect}} = \mu_{\text{money \& service collect}}$	2.884	.005	1.980	Yes
6e $\mu_{\text{love individ}} = \mu_{\text{money \& service individ}}$	1.890	.074	2.093	No
6f $\mu_{\text{status individ}} = \mu_{\text{money \& service individ}}$	2.342	.030	2.086	Yes
6g $\mu_{\text{work itself individ}} = \mu_{\text{money \& service individ}}$	2.763	.012	2.086	Yes
6h $\mu_{\text{inform individ}} = \mu_{\text{money \& service individ}}$	1.952	.065	2.086	No

Means and Standard Deviations

Variable	N	Mean	Standard Deviation
Love - Collectivism	102	.5126	.3854
Status - Collectivism	102	.5292	.3744
Work Itself - Collectivism	101	.5232	.3915
Information - Collectivism	101	.4982	.3808
Money & Service - Collectivism	102	.4457	.4298
Love - Individualism	20	.3577	.5156
Status - Individualism	21	.3653	.5120
Work Itself - Individualism	21	.3772	.5123
Information - Individualism	22	.3018	.5314
Money and Service - Individualism	21	.2856	.5554

Summary

An analysis of the validity and reliability utilized in this study was also presented. All of the scales appear to be reliable and valid instruments for use in this study. A summary of these analyses is presented in Table 31.

Table 31

Summary of Results of Analytical Techniques for Reliability and Validity of Scales

Scale	Tests	Results
Revised Berg/Wiebe Resource Exchange Scale	Correlation Analysis Cronbach's Alpha Guttman Split-half Procedure	Valid and Reliable Results were consistent with those of past studies.
Short-form Minnesota Satisfaction Questionnaire	Correlation Analysis Cronbach's Alpha Guttman Split-half Procedure	Valid and Reliable Results were consistent with those of past studies.
Individualism-Collectivism Scale	Correlation Analysis Cronbach's Alpha Guttman Split-half Procedure	Valid and Reliable Results were consistent with those of past studies

An analysis of the demographics was presented, and no differences were found between the demographics and the overall scores on the scales utilized in this study. A summary of these analyses is presented in Table 32.

Table 32

Summary of Results of Analytical Techniques for Demographic Variables and Overall Scores of the Scales

Variables	Tests	P Value	Results
Gender Race	T-test	.05	No significant difference was indicated.
Age Education	Spearman Correlation	.05	No significant difference was indicated.
Marital Status Economic Status	ANOVA	.05	No significant difference was indicated.
Length of time employed in health care industry, working with employer, living in the Delta	Pearson Product Moment Correlation	.05	No significant difference was indicated

Hypothesis 1 was mostly supported. A significant difference was found for the level of satisfaction for resources once removed and those twice removed when compared to the level of satisfaction for resources three times removed.

Hypothesis 2 was partially supported. A significant difference was found in the level of satisfaction for collectivistic individuals for resources once removed and for those three times removed. No significant difference was found in the level of satisfaction for individualistic individuals for resources once removed and for those three times removed.

Hypothesis 3 was supported. A significant difference was found in the level of satisfaction for the intrinsic resources love, status, service, work itself and information and the extrinsic resource money.

Hypothesis 4 was mostly supported. A significant difference was found for the level of satisfaction of collectivistic individuals for the intrinsic resources love, status, service, work itself, and information and the extrinsic resource money. No significant difference was found in the level of satisfaction for individualistic individuals for the intrinsic resources love, service, and information and the extrinsic resource money.

Hypothesis 5 was supported. A significant difference was indicated in the level of satisfaction for the intrinsic resources love, status, work itself, and information and the combined extrinsic resources money and service.

Hypothesis 6 was mostly supported. A significant difference was indicated for the level of satisfaction for collectivistic individuals for the intrinsic resources love, status, work itself, and information and the combined extrinsic resources money and service. No significant difference was indicated for the level of satisfaction for individualistic individuals for the intrinsic resources love and information and the combined extrinsic resources money and service.

A summary of the results of the hypotheses is presented in Table 33.

Table 33

Summary of Results of Analytical Techniques for Hypotheses

Hypothesis	Test	P Value	Results
1	T-test	.05	Mostly supported
2	T-test Regression	.05	Partially supported
3	T-test	.05	Supported
4	T-test	.05	Supported for collectivists Mostly supported for individualists
5	T-test	.05	Supported
6	T-test	.05	Supported for collectivists Mostly supported for individualists

The summary, conclusions, discussion, limitations of the study, and suggestions for future research are presented in Chapter VI.

CHAPTER VI

SUMMARY, CONCLUSIONS, DISCUSSION, IMPLICATIONS LIMITATIONS AND FUTURE RESEARCH

The purpose of this dissertation was to examine the exchange of resources in the work place and the level of satisfaction with these exchanges by employing the Revised Berg/Wiebe Resource Exchange Scale to examine issues that have been studied in past research by Berg and Wiebe (1986, 1989) and Johnson (1995) concerning Foa and Foa's (1974) Resource Exchange Theory. These issues are:

1. the level of satisfaction with resources close in proximity show a higher level of satisfaction than those resources that are farther apart in proximity.
2. overall satisfaction of particular resources in comparison with other resources.

The Individualism-Collectivism Scale developed by Triandis (1995) was also utilized with the Revised Berg/Wiebe Resource Exchange Scale to expand the research concerning these issues by attempting to establish domains as described by Deutsch (1975) for exchanges in the work place. In addition, the Short-form Minnesota Satisfaction Questionnaire was administered and appropriate statistical analyses were implemented to test for reliability and validity of all instruments utilized in the study. Demographic data was gathered so that the employees' overall satisfaction with exchanges could be compared with the data.

This study was conducted in several phases in order to examine and evaluate the objectives discussed above. First, a review of the relevant social exchange literature was conducted to identify the theories on which this particular study was based. This review provided the investigator with an understanding of the development of these theories and how they relate to each other. The review also explained the development of the Berg/Wiebe Resource Exchange Scale, which was based on Foa, and Foa's (1974) Resource Exchange Theory and other instruments which were utilized in the study.

Second, hypotheses were derived from the literature on past research concerning the exchange of resources in the work place based on Foa and Foa's (1974) Resource Exchange Theory. Hypotheses were also derived from the research of Deutsch and others in an attempt to establish domains for the exchange of resources in the work place.

Next, the Revised Berg/Wiebe Resource Exchange Scale, the Short-form Minnesota Satisfaction Questionnaire, and the Individualism-Collectivism Scale were administered to the employees of a medium sized health care facility in the Delta Region of Mississippi. At the time of this study, the facility employed 175 individuals. Of the 175 surveys administered, a total of 140 were returned for a response of 80%.

Finally, appropriate statistical procedures were used to evaluate the validity and reliability of the Revised Berg/Wiebe Resource Exchange Scale, the Short-form Minnesota Satisfaction Questionnaire, and the Individualism-Collectivism Scale. Statistical procedures were also employed to explore the relationships between the demographic variables and the overall scores for the instruments utilized in the study. An evaluation of the six hypotheses examined in this study was conducted through the use of several analytical techniques. The hypotheses examined in this study are:

H1. Individuals will have a higher level of satisfaction for the exchange of resources that are closer in proximity than those resources that are further apart in proximity.

H2. Individuals who perceive themselves as performing their jobs in "naturally occurring" work groups (collectivistic) will have a higher level of satisfaction for the exchange of resources that are closer in proximity than those resources that are farther apart in proximity while those who perceive themselves as performing their jobs as individuals (individualistic) will not have a significant difference in their level of satisfaction.

H3. Individuals will have a higher level of overall satisfaction for the intrinsic resources love, status, information, work itself, and service than that of the extrinsic resource money.

H4. Individuals who perceive themselves as performing their jobs in "naturally occurring" work groups (collectivistic) will have a higher level of overall satisfaction for the intrinsic resources love, status, information, work itself, and service than that of the extrinsic resource money while those who perceive themselves as performing their jobs as individuals (individualistic) will not have a significant difference in their level of overall satisfaction.

H5. Individuals will have a higher level of overall satisfaction for the intrinsic resources love, status, information, and work itself than that of the combined extrinsic resources money and service.

H6. Individuals who perceive themselves as performing their jobs in "naturally occurring" work groups (collectivistic) will have a higher level of overall satisfaction for the intrinsic resources love, status, information, and work itself than that of the combined extrinsic resources money and service while those who perceive themselves as performing their jobs as individuals (individualistic) will not have a significant difference in their level of overall satisfaction.

Conclusions

The results of Hypothesis 1 were based on t-tests comparing the average level of satisfaction for the resources once removed, twice removed, and three times removed. The statistical analysis generally supported Hypothesis 1. A significant difference was found for the level of satisfaction for resources once removed and those twice removed when compared to the level of satisfaction for resources three times removed.

Hypothesis 2 was evaluated utilizing the results of t-tests to examine the differences in the average level of satisfaction for resources once removed, twice removed, and three times removed for collectivistic and individualistic individuals. The statistical results showed limited support for Hypothesis 2. As predicted, a significant difference was found in the level of satisfaction for the resources once removed and for the resources three times removed for collectivistic individuals. Additionally, no significant difference was found in the level of satisfaction for the resources once removed and for the resources three times removed for individualistic individuals.

Hypothesis 3 was analyzed through the use of t-tests comparing the average level of overall satisfaction for the intrinsic resources love, status, service, work itself, and information and the extrinsic resource money. The analysis revealed a significant difference in the overall level of satisfaction for the intrinsic resources and the extrinsic resource. The results of the t-tests fully supported Hypothesis 3.

The results from t-tests used to examine Hypothesis 4 showed support for the predictions concerning collectivistic individuals. A significant difference was found in the average overall level of satisfaction of collectivistic individuals for the intrinsic resources love, status, service, work itself, and information and the extrinsic resource money. As predicted for the individualistic individuals, no significant difference was found in the level of overall satisfaction for the intrinsic resources love, service, and information and the extrinsic resource money.

Hypothesis 5 provided another look at Hypothesis 3 by combining the resource service with the extrinsic resource money. The predictions made by Hypothesis 5 were supported by the results of the t-tests. A significant difference was indicated in the overall level of satisfaction for the intrinsic resources love, status, work itself, and information and the combined extrinsic resources money and service.

The resource service was combined with the resource money for Hypothesis 6 to test the same relationships predicted in Hypothesis 4 concerning the exchange of intrinsic and extrinsic resources. The results of the t-tests supported the predictions concerning the collectivistic individuals. A significant difference in the overall level of satisfaction for the intrinsic resources love, status, work itself, and information and the combined extrinsic resources money and service. In addition, no significant difference was indicated for the overall level of satisfaction for individualistic individuals for the intrinsic resources love and information and the combined extrinsic resources money and service.

Based on the analyses of the data collected and the statistical results, the following conclusions have been reached:

1. Individuals had a higher level of satisfaction for the exchange of resources that are closer in proximity than those resources that are further apart in proximity.
2. Individuals who perceived themselves as performing their jobs in "naturally occurring" work groups (collectivistic) did have a higher level of satisfaction for the exchange of resources once removed than those resources three times removed while those who perceived themselves as performing their jobs as individuals (individualistic) did not have a significant difference in their level of satisfaction for the exchange of resources once removed and resources three times removed.
3. Individuals had a higher level of overall satisfaction for the intrinsic resources love, status, information, work itself, and service than that of the extrinsic resource money.
4. Individuals who perceived themselves as performing their jobs in "naturally occurring" work groups (collectivistic) did have a higher level of overall satisfaction for the intrinsic resources love, status, information, work itself, and service when exchanged for the extrinsic resource money while those who perceived themselves as performing their jobs as individuals (individualistic) did not have a significant difference in their level of overall satisfaction for the exchange of the intrinsic resources love, service, and information when compared with the extrinsic resource money.

5. Individuals did have a higher level of overall satisfaction for the intrinsic resources love, status, information, and work itself than that of the combined extrinsic resources money and service.
6. Individuals who perceived themselves as performing their jobs in "naturally occurring" work groups (collectivistic) did have a higher level of overall satisfaction for the intrinsic resources love, status, information, and work itself than that of the combined extrinsic resource money and service while those who perceived themselves as performing their jobs as individuals (individualistic) did not have a significant difference in their level of overall satisfaction for the exchange of intrinsic resources love and information when compared with the combined extrinsic resource of money and service.

Discussion

Resource Exchange Theory was developed and has been applied within the domain of interpersonal relations (Foa and Foa, 1974; 1976). Berg and Wiebe (1986, 1989, 1993) argued that Resource Exchange Theory may represent a valuable conceptual and analytic tool when applied to world of work. The authors claimed that most people spend a large amount of time working. They believed that the traditional economic view of work and the exchanges that occur in the work place involve more than only a few types of exchanges. Berg and Wiebe (1986) suggested that the work setting is one in which exchanges of many different types of resources occur. A worker is traditionally viewed as "giving" time and effort (services) in order to "receive" wages (money). While exchanges like this will certainly comprise a large amount of those that occur in the work place, Berg and Wiebe (1989) believed that the resources workers give are not limited to "services" and that the resources they receive include more than "money".

Berg and Wiebe's (1986) study was an initial attempt to expand and apply Resource Exchange Theory developed by Foa and Foa (1974) to the work place. The study examined the exchange of resources among workers employed in two plants of a mid-south firm. The authors concluded that exchanges in the work place are not limited to "economic" ones. A sizable minority of the respondents reported exchanging resources in their jobs that involved status, information, love, and benefits unique to their particular employment. Resource Exchange Theory proved quite capable for describing the variety of benefits workers receive and give in their work and in quality circles in a study by Berg and Wiebe (1989). The theory appeared capable of detecting differences that arise from differences in the personalities of workers or in work environments. The studies by Berg and Wiebe (1986, 1989) led to the development of the Berg/Wiebe Resource Exchange Scale.

Berg and Wiebe (1986, 1989) failed to evaluate the reliability and validity of their instrument. In a study of manufacturing workers, Johnson (1995) employed the Berg/Wiebe Resource Exchange Scale to evaluate hypotheses based on the research of Foa and Foa's (1974) Resource Exchange Theory concerning the level of satisfaction with resources based on proximity and on the types of resources (intrinsic/extrinsic) exchanged. Johnson also evaluated the reliability and validity of the Berg/Wiebe Resource Exchange Scale. Results indicated that the Berg/Wiebe Resource Exchange Scale is a reliable and valid instrument for measuring the exchange of resources in the work place and the level of satisfaction with these exchanges. However, no support was found for the hypothesis that individuals would have a higher level of satisfaction for the resources closer in proximity than those resources further apart in proximity. Little support was found for the hypothesis that the level of satisfaction for intrinsic resources would be significantly greater than the level of satisfaction for the extrinsic resource. Results of the study also indicated that results obtained from administration of the scale were not affected by the demographic variables of gender, race, marital status, education, and age.

Johnson (1995) concluded that several factors concerning the sample utilized in the study helped explain the failure of the results to support his hypotheses concerning the exchange of resources. The author suggested that the homogeneous nature of the sample was not representative of employees in general and that the sample also limited the generalizability of the results of the study. He doubted whether the Berg/Wiebe Resource Exchange Scale would yield similar results across many different type of work settings. Johnson (1995) utilized the scale in a sample of workers who were in a manufacturing facility and who were not members of any type of work group or team, while Berg and Wiebe developed their scale utilizing a sample in which a large percentage of the individuals making up the samples were members of a work group or team.

Examination of the Berg/Wiebe Resource Exchange Scale utilized in Johnson's (1995) study revealed a possible concern with the wording of the questions. The scale presented examples of receiving money, information, love, status, services, and benefits unique to the job itself utilizing the word "company" in all of the exchange relationships. This fact may have led the respondents to believe that the exchanges taking place were only between the employer and themselves. Thus, the employees might have perceived the exchanges occurring in employer-employee relationships described by Deutsch (1975) that were discussed earlier in Chapter II of this dissertation.

The sample and the wording of the Berg/Wiebe Resource Exchange Scale utilized by Johnson (1995) may have led to the hypotheses concerning Foa and Foa's (1974) Resource Exchange Scale not being supported. Studies by Berg and Wiebe (1986, 1989) and Johnson (1995) are important and useful for understanding the application of Foa and Foa's (1974) Resource Exchange Theory to the exchange of resources in the work place. The failure of the results in Johnson's (1995) study to support issues concerning the exchange of resources as described by Foa and Foa (1974) and others led to the investigation in this dissertation.

This dissertation examined the same issues concerning Resource Exchange Theory as those investigated by Johnson (1995). The study also attempted to establish domains for these exchanges of resources in the work place based on the research by Deutsch (1975). A sample was utilized that was similar to the one in which Berg and Wiebe (1986, 1989) developed the Berg/Wiebe Resource Exchange Scale. A revised version of the Berg/Wiebe Resource Exchange Scale was used to measure the exchange of resources and the employees' satisfaction with the exchanges. The scale was revised by removing the word "company" from the questions to allow individuals in the sample to indicate their perceptions of the exchanges that occur in the work place, not just the exchanges between the employer and employee.

Hypotheses 1, 3, and 5 tested the exchange of resources that have been examined intensely in the literature concerning Foa and Foa's (1974) Resource Exchange Theory. Johnson (1995) examined Hypotheses 1 and 3 in the work place in a study of industrial workers. These hypotheses did not consider the subjects' perceptions of whether they were performing their jobs as collectivistic or individualistic.

Researchers, such as Berg, Piner, and Frank (1993), have indicated that it would be appropriate to extend Foa and Foa's (1974) Resource Exchange Theory to include the dimensions proposed by Deutsch (1975). Hypotheses 2, 4, and 6 utilized the Individualism-Collectivism Scale in an attempt to establish the domains described by Deutsch (1975) for the exchange of resources that were tested in Hypothesis 1, 3, and 5. The sample was separated into those subjects who perceived themselves as performing their job as collectivistic and those people who perceived themselves as performing their job as individualistic.

Hypotheses 1 and 2 were based on the circumplex developed by Foa and Foa (1974) concerning Resource Exchange Theory. The circumplex was presented in Figure 1 in Chapter II of this dissertation. The Revised Berg/Wiebe Resource Exchange Scale presented the exchange of items that represented resources once removed, twice removed, and three times removed. The categories of the resources once removed were love/status, status/information, information/money, and service/love. The scale also measured categories of resources twice removed such as love/information, money/services, and service/status. Resources three times removed were love/money and information/services. Hypothesis 1 and 2 did not include the resource work itself as a variable. This variable was derived from the research on the exchange of resources in the work place by Berg and Wiebe (1986, 1989). The authors did not attempt to place the resource on the circumplex developed by Foa and Foa (1974).

Hypothesis 1 examined the belief that individuals in the work place will have a higher level of satisfaction for resources that are close in proximity than those that are farther apart. This hypothesis is based on the work of Foa and Foa's (1974) Resource Exchange Theory and was originally tested by Johnson (1995) in the work place by utilizing the Berg/Wiebe Resource Exchange Scale in a sample of industrial workers. Johnson's results failed to offer any support for the hypothesis. T-tests were employed in this study to compare the mean level of satisfaction of individuals for resources exchanged that were once removed, twice removed, or three times removed. As predicted, the average satisfaction level for the resources once removed and twice removed was significantly higher than the average level of satisfaction for the resources three times removed. Although no significant difference was found when comparing the mean level of satisfaction for the exchange of resources once and twice removed, the findings for Hypothesis 1 indicated that the individuals in this study appeared to have a higher level of satisfaction for the exchange of resources closer in proximity (once removed and twice removed) than those farther apart (three times removed). The results were consistent with past research on Resource Exchange Theory as the individuals in this study indicated significantly a higher level of satisfaction for the exchange of resources that were similar in nature and closer in proximity than those that were dissimilar or farther apart (Brinberg and Wood, 1983; Clark, 1981; Clark and Mills, 1979; Donnenwerth and Foa, 1974; Foa and Foa, 1974; Hatfield, Utne, and Traupmann, 1979; Holmes, 1981; Teichman, 1971; Tornblom and Fredholm, 1984; Tornblom, Fredholm, and Jonsson, 1987; Turner, Foa, and Foa, 1971; Walster, Walster and Berscheid).

Hypothesis 2 examined the exchange of resources in the work place as they relate to proximity as predicted in Hypothesis 1 while attempting to establish domains as described by Deutsch (1975) for the exchanges. The Individualism-Collectivism Scale was utilized to examine the level of satisfaction of individuals who perceived themselves as performing their jobs in "naturally occurring" work groups and those individuals that perceived themselves as performing their jobs as individuals. Previous research based upon the work of Foa and Foa (1974) has indicated that the level of satisfaction for resources that are close in proximity is higher than those that are farther apart. The results of the statistical analyses offered limited support for Hypothesis 2. T-tests were utilized to examine the differences in the mean level of satisfaction for the resources once removed, twice removed, and three times removed for collectivistic and individualistic individuals. The results offered support for the predictions concerning the level of satisfaction with the exchange of resources once removed when compared with the exchanges of the resources three times removed for both collectivistic and individualistic individuals. As predicted, the average satisfaction level for individuals in this study for the resources once removed was significantly higher than the average level of satisfaction for the resources three times removed for collectivistic individuals. Additionally, no significant difference was found in the level of satisfaction for resources once removed and for resources three times removed for individualistic individuals. However, several findings were not consistent with the predictions of Hypothesis 2. No significant differences were found when comparing the means for the resources once removed and twice removed and the means of resources twice removed and three times removed for collectivistic individuals. In addition, a significant difference was found in the level of satisfaction for individualistic individuals when comparing the means for the resources once and twice removed, and twice and three times removed.

The results of the simple regression analysis utilized in Hypothesis 2 indicated that there was a positive relationship between an individual's level of satisfaction for the resources and the individual's perception about performing his/her job as collectivistic or individualistic. Although the beta weights for the regressions were not significant, the slopes and other coefficients were all positive and increasing in size moving from the resources once removed out to the resources three times removed. In addition, the results of the Chow test showed a significant difference in the slopes of the three regression equations providing further evidence of the positive relationships.

For hypotheses 3, 4, 5, and 6, the Revised Berg/Wiebe Resource Exchange Scale was utilized to measure the exchange of items that represented intrinsic resources and extrinsic resources. In Hypotheses 3 and 4, the categories of intrinsic resources included love, status, service, work itself, and information. The level of satisfaction for these intrinsic resources was compared with the extrinsic resource money. The resource service was combined with the extrinsic resource money for examination of the exchange of intrinsic and extrinsic resources in Hypotheses 5 and 6.

Hypothesis 3 examined the level of satisfaction of individuals with the exchange of resources in the work place as it relates to the intrinsic resources love, status, information, service and work itself as compared to the extrinsic resource money. Previous research by the Foas and their associates concerning Resource Exchange Theory concluded that the level of overall satisfaction was greater for intrinsic resources than for extrinsic resources. Johnson (1995) found only limited support for this hypothesis in a sample of industrial workers. He found the satisfaction level for the resource work itself to be significantly higher than that for the extrinsic resource money. To test the hypothesis in this study, data was accumulated utilizing the Revised Berg/Wiebe Resource Exchange Scale for the intrinsic resources of love, status, information, service and work itself and for the extrinsic resource of money. The results of the t-tests from Hypothesis 3 revealed the average level of overall satisfaction for the intrinsic resources love, status, information, service and work itself was higher than the extrinsic resource money. The results indicated that individuals in this study appeared to favor the exchange of the intrinsic resources more than extrinsic resource of money. These results were consistent with earlier studies concerning Resource Exchange Theory and the exchange of intrinsic and extrinsic resources (Berg and Wiebe, 1986; Brinberg and Castell, 1982; Tornblom, Jonsson and Foa, 1985; Tornblom and Fredholm, 1984).

Hypothesis 4 attempted to establish domains as described by Deutsch (1975) for the exchange of the intrinsic resources love, status, information, service, and work itself and the extrinsic resource money in the work place as predicted in Hypothesis 3. This hypothesis examined the level of satisfaction of individuals who perceived themselves as performing their jobs in "naturally occurring" work groups and those who perceived themselves as performing their jobs as individuals. Previous research by the Foas and others on Resource Exchange Theory concluded that the level of overall satisfaction for intrinsic resources was greater than that for extrinsic resources. The Individualism-Collectivism Scale was used to divide the sample into two groups to evaluate this hypothesis. Data was collected utilizing the Revised Berg-Wiebe Resource Exchange Scale for the intrinsic resources love, status, information, service, work itself and for the extrinsic resource of money. The results provided support for the predictions concerning collectivistic individuals. As predicted, the average overall level of satisfaction for the intrinsic resources was significantly higher than the average overall level of satisfaction for the extrinsic resource money for those people perceiving themselves as performing their jobs in groups. These individuals appeared to favor the exchange of all the intrinsic resources when compared to the extrinsic resource money. In addition, the results supported the predictions concerning individualistic individuals with the exception of the exchange of the intrinsic resources status and work itself when compared to the extrinsic resource money. No significant difference was found in the average level of satisfaction for the intrinsic resources love, service, information and the extrinsic resource money for individuals who perceived themselves as performing their jobs as individuals. These individuals showed no preference among the intrinsic resources of love, service, and information when compared to the extrinsic resource of money. With the few exceptions, these findings were supportive of the past research concerning the exchange of intrinsic and extrinsic resources according to Foa and Foa's (1974) Resource Exchange Theory (Berg and Wiebe, 1989; Tornblom and Foa, 1993).

Hypothesis 5 provided another look at Hypothesis 3 as the resource service was combined with the extrinsic resource of money. Data was accumulated for the intrinsic resources of love, status, information and work itself utilizing the Revised Berg/Wiebe Resource Exchange Scale. The results of the t-tests were used to determine if the overall satisfaction for the intrinsic resources love, status, work itself, and information was higher than that of the combined extrinsic resources money and service. The average overall satisfaction level for the intrinsic resources was significantly higher than the average satisfaction level for the combined extrinsic resources. The findings from Hypothesis 5 provided support for the findings of Foa and Foa (1974) and others concerning the exchange of intrinsic and extrinsic resources.

For Hypothesis 6, the resource service was combined with the resource money to extend the predictions made by Hypothesis 4. The sample was divided into two groups utilizing the Individualism-Collectivism Scale. Data was collected for the intrinsic resources love, status, information, and work itself and the combined extrinsic resources money and service utilizing the Revised Berg-Wiebe Resource Exchange Scale. The results of the t-tests, as predicted, showed a significantly higher level of satisfaction for collectivistic individuals for the intrinsic resources love, status, work itself, and information than the combined extrinsic resources money and service. These individuals did appear to favor the exchange of the intrinsic resources over the combined extrinsic resources. The results also supported the predictions concerning the individualistic individuals except in the exchange of the intrinsic resources status and work itself when compared to the combined extrinsic resource. No significant difference was indicated for the level of satisfaction for individualistic individuals for the intrinsic resources love and information and the combined extrinsic resources money and service. These individuals did not show any preferences in the exchange of these intrinsic resources and the combined extrinsic resources money and service. With the few exceptions, the results from Hypothesis 6 were consistent with the findings of past studies concerning the satisfaction level for the exchange of intrinsic and extrinsic resources (Berg and Wiebe, 1989, Tornblom and Foa, 1993).

Hypotheses 4 and 6 found very similar results regardless of whether the resource service was included with the intrinsic resources as in Hypothesis 4 or included in the extrinsic resources as in Hypothesis 6. The results from these two hypotheses revealed similar findings that were not predicted by the hypotheses. The individuals in this study who perceived themselves as performing their jobs as individualistic had a higher level of satisfaction for the intrinsic resources status and work itself than the extrinsic resources in the results of both hypotheses. These individuals appeared to prefer the exchange of resources that were represented in the intrinsic category of status, defined by Foa and Foa (1974) as evaluative judgements that convey prestige, regard, esteem, admiration, respect, and confer self-worth. Individuals in the study also seemed to prefer items that represented the intrinsic category of work itself, defined by Berg and Wiebe (1993) as activities that are peculiar to the place of work, its environment, the job, task, or position. These findings may have been attributed to the fact that the research on the resource status has been limited and that the resource work itself was a new resource category added to the research on resource exchange by Berg and Wiebe (1986, 1989). Work itself has only been examined in one other study by Johnson (1995) involving exchanges of resources in the work place.

The results of this study did establish domains as described by Deutsch (1975) for various exchanges in the work place predicted by the past research on Foa and Foa's (1974) Resource Exchange Theory. According to Deutsch (1975), individuals in this study that perceived themselves as collectivistic or as performing their jobs in "naturally occurring" work groups utilized the equality norm in the exchange of resources. These individuals had a higher level of satisfaction for the resources once removed when compared to the resources three times removed. They also had a higher level of satisfaction for the intrinsic resources when compared to the extrinsic resources as suggested by Berg and Wiebe (1989) in a study of group members. Deutsch claimed that these collectivistic individuals evaluated their exchanges in conditions of social harmony within the group where the resources are divided equally among members of the group regardless of their contributions.

Individuals in this study who perceived themselves as individualistic or as performing their jobs as individuals did not have a higher level of satisfaction for the resources once removed when compared to the resources three times removed. They also did not have a higher level of satisfaction for the intrinsic resources love, information, and service when compared to the extrinsic resource money in Hypothesis 4. These individuals did not have a higher level of satisfaction for the intrinsic resources love and information when compared to the combined extrinsic resources money and service in Hypothesis 6. Deutsch (1975) predicted that these individualistic individuals perceived the exchange taking place in a pure economic view and in an employer-employee relationship. They utilized the equity norm in their evaluation of the exchanges. These findings in this study were consistent with the exception of the intrinsic resources of status and work itself.

This dissertation examined the same issues as investigated by Johnson (1995) concerning the level of satisfaction with the exchange of resources with respect to their proximity and their classification as intrinsic/extrinsic. Johnson (1995) employed the Berg/Wiebe Resource Exchange Scale in a sample of industrial workers and found little support for these issues concerning Foa and Foa's (1974) Resource Exchange Theory.

The scale used in Johnson's study presented examples of receiving money, information, love, status, services, and benefits unique to the job itself utilizing the word "company" in all of the exchange relationships. The wording of the questions led the respondents in Johnson's study to believe that the exchanges taking place were only between the employer and themselves. The employees perceived the exchanges occurring in an employer-employee relationship similar to that described by Deutsch (1975). Deutsch claimed that these individuals utilized an "equity" approach in their responses and perceived their jobs as "individualistic". The wording of the Berg/Wiebe Resource Exchange Scale used by Johnson (1995) led to the hypotheses concerning the satisfaction with the exchange of resources not being supported. The failure of the results in Johnson's (1995) study led to the investigation in this dissertation. The results of this dissertation found support for the issues concerning the satisfaction with the exchange of resources in relation to their proximity and their classification as intrinsic/extrinsic. A revised version of the Berg/Wiebe Resource Exchange Scale was used in this study to measure the exchange of resources and the employees' satisfaction with the exchanges. The scale was revised by removing the word "company" from the questions to allow the respondents to indicate their perceptions of the exchanges that occur in the work place, not just the exchanges between the employer and employee.

There are some additional results that need to be discussed in addition to the results of the hypotheses. Correlation analysis, Cronbach's Alpha, and the split-half procedure were used to evaluate the validity and reliability of the Revised Berg/Wiebe Resource Exchange Scale, the Short-form Minnesota Satisfaction Questionnaire, and the

Individualism-Collectivism Scale. The results of these analyses indicated that the three instruments appeared to be valid and reliable for inclusion in this study.

For the Revised Berg/Wiebe Resource Exchange Scale, correlation analysis was utilized to show that all correlations of each group of two questions used to measure the exchange of resources were more than adequate. Each of these correlations was found to be significant at the .01 level of significance. These results held true when the likelihood of exchange scores were combined with the level of satisfaction scores for particular exchanges. Similar results were obtained when correlation analysis was performed using only the satisfaction scores. A Cronbach's Alpha and split half procedure were calculated for all items, the likelihood items and the satisfaction items of the scale. The Cronbach's Alpha for all items was .966. The split-half procedure for all items revealed a Cronbach's Alpha for the first half of .932 and for the second half of .946. The correlation between the two halves for all items was .855, and the Guttman split-half reliability was .919. These procedures conducted on the other items revealed similar results. These results are similar to the results of Johnson's (1995) study, which found a Cronbach's Alpha of .870.

Correlating the overall satisfaction score from the Revised Berg/Wiebe Resource Exchange Scale with the overall score from the Short-form Minnesota Satisfaction Questionnaire provided further support for the reliability and validity of the Revised Berg/Wiebe Resource Exchange Scale. The Short-form Minnesota Satisfaction Questionnaire is a measure of job satisfaction. The Revised Berg/Wiebe Resource Exchange Scale is a measure of the resources exchanged at the workplace and the level of satisfaction with these exchanges. The resources measured by the Revised Berg/Wiebe Resource Exchange Scale include love, status, information, services, work itself, and money. Comparing scores from the two instruments provided an indication that the two instruments measure the same concept. Correlation analysis between the two instruments resulted in a correlation score of .494 for all items and a score of .549 for the satisfaction score, both of which were significant at the .01 level of significance. Johnson (1995) employed the same procedure and found a correlation of .643.

A Cronbach's Alpha of .913 was calculated for the Short-form Minnesota Satisfaction Questionnaire. The split-half procedure resulted in a Cronbach's Alpha of .839 for the first half and of .887 for the second half. The correlation between the first half and the second half was .663, with a Guttman split-half reliability of .780. Johnson (1995) calculated a Cronbach's Alpha for the Short-form Minnesota Satisfaction Questionnaire of .852. Past studies have yielded Cronbach's Alphas ranging from .84 to .92 (Weiss, Davis, England, and Lofquist, 1966).

The reliability and validity of the Individualism-Collectivism Scale was tested utilizing the Cronbach's Alpha and the split-half procedure. These tests were performed for all items on the scale, the collectivism items and the individualism items. A Cronbach's Alpha of .682 was calculated for all items in the scale. The split-half procedure resulted in a Cronbach's Alpha of .627 for the first half and .524 for the second half. The correlation procedure between the first and second half was .342, with a Guttman split-half reliability of .507. A Cronbach's Alpha of .74 was found in an earlier study for the Individualism-Collectivism Scale (Triandis, Leung, Villareal, and Clack, 1985). Cronbach's Alpha calculations for the Individualism-Collectivism Scale have been found to range from .60 to .70 (Triandis, 1995). A coefficient of .66 was found for the individualism questions and .78 for the collectivism questions in a study by Singelis, Triandis, Bhawuk, and Gelfand, (1995). This study found a Cronbach's Alpha of .719 for the collectivism items and .583 for the individualism items.

Evaluation of demographic variables, in conjunction with the Revised Berg/Wiebe Resource Exchange Scale, Short-form Minnesota Satisfaction Questionnaire, and the Individualism-Collectivism Scale, resulted in some very useful information. Results of the analysis indicated that there was no significant difference in the means concerning the relationship of gender, race, marital status, economic status, occupation, age, education, length of employment in health care, length of employment with employer, and length of time living in the Delta Region of Mississippi when compared to the scores of the Revised Berg/Wiebe Resource Exchange Scale, the Short-form Minnesota Satisfaction Questionnaire, and the Individualism-Collectivism Scale.

The results concerning the demographics and the validity and reliability of the instruments can be interpreted to mean that the Revised Berg/Wiebe Resource Exchange Scale can be used to measure the exchange of resources and the level of satisfaction with the exchanges at any type of workplace. The demographic variables explored in this study will have no impact on the ability of the instrument to measure these exchanges and the level of satisfaction with the exchanges. These results also lead to the conclusion that this instrument is reliable, valid, and can be administered in conjunction with other instruments to any group of individuals without regard to the demographic variables included in this study.

Implications for the Work Place

The results from this study should be of importance to psychologists, managers, and other supervisory personnel interested in the study of Resource Exchange Theory and the exchange of resources in the work place. The results contributed to the literature concerning social exchange theory and job satisfaction.

The results provided evidence for the usefulness of Resource Exchange Theory in the work place; a setting in which the theory has been employed a very limited number of times. The theory provided a practical framework for identifying resources exchanged in the work place and the satisfaction with the exchanges from the results of the employment of the Revised Berg/Wiebe Resource Exchange Scale. As in the studies by Berg and Wiebe (1986, 1989), the theory was able to find meaningful differences in exchanges that resulted from different work environments and differences among workers. The results of the study offered support for the past research conducted on Resource Exchange Theory by Berg and Wiebe (1986, 1989) and Johnson (1995). As predicted, the employees' level of satisfaction was higher for the exchange of resources that were similar and more tangible in nature than the resources that were farther apart and intangible.

This study was one of the first attempts to establish domains for the exchange of resources in the work place based on proximity and the types of resources (intrinsic/extrinsic) exchanged. Resource Exchange Theory was utilized to measure the exchanges of resources in the work place comparing the satisfaction level of employees who perceived themselves working in "naturally occurring" work groups with that of employees perceiving themselves as working as individuals. With the exceptions noted earlier in this chapter, the results indicated that the employees that perceived themselves as performing their jobs as part of a work group or team had a higher level of satisfaction for the exchange of the resources that were similar and closer in proximity than the resources that were dissimilar and farther apart. They also had a higher level of satisfaction for a number of the intrinsic resources when compared with the satisfaction of the extrinsic resources. Deutsch (1975) indicated that these employees utilized the equality mode to evaluate their satisfaction with the exchange of resources while keeping the interest of the members of the group in mind and by dividing the resources equally among members of the group regardless of their contributions.

The results of the study indicated that employees that perceived themselves as performing their jobs as individuals did not have a significant difference in their satisfaction level for the resources in relation to proximity or intrinsic/extrinsic except where exceptions were noted earlier. Deutsch (1975) suggested that employees perceiving themselves as performing their jobs as individuals utilized the equity mode to evaluate the satisfaction with the exchange of resources where the exchange was taking place in a pure economic view and in relation to the amount of their contributions.

The study also serves as a tool that can be utilized by managers and other supervisory personnel in various industries to assist them in making improvements in the area of job satisfaction. The results suggested that job satisfaction could be predicted not only from the likelihood of receiving benefits, but also from the workers' satisfaction with the benefits they receive. The results could help supervisory personnel determine the probabilities that an exchange would take place and give them the knowledge of which resources are exchanged by different types of individuals and the level of satisfaction with these exchanges. Using the results of this study, it is possible that managers and other supervisory personnel will be able to develop innovative approaches to improving job satisfaction in the work place.

The results of the study provided information to researchers and business professionals that the Revised Berg/Wiebe Resource Exchange Scale is a reliable and valid instrument that can be administered in conjunction with other instruments to any group of individuals without regard to the demographic variables included in this study. It is possible that the scale can be used by individuals in the business world to make improvements in the area of job satisfaction in the work place.

Limitations

The first limitation concerns the sample used in this study. The individuals selected for this study were not randomly selected for inclusion. Employees from a single health care facility (hospital) comprised the sample. This facility was chosen primarily because the employees were willing to participate in the survey. Therefore, any inferences derived from the results of this dissertation should be interpreted with caution.

The second limitation concerns the generalizability of the results of this dissertation. The sample for this study was limited to the employees of a single health care facility in the Delta Region of the State of Mississippi. The sample did not contain a balance between the number of individuals that perceived themselves as performing their jobs in "naturally occurring" work groups (collectivistic) and those individuals that perceived themselves as performing their jobs as individuals (individualistic). The sample consisted mostly of individuals that perceived themselves as collectivistic. A very small minority of the individuals perceived themselves as performing their jobs as individuals. Health care facilities tend to have work environments where employees work in teams because of the nature of the health care field. Therefore, this sample might not be representative of employees in general. Thus, it is not certain that the Revised

Berg/Wiebe Resource Exchange Scale will yield similar results across many different types of work settings.

A final limitation concerns the measure used to separate individuals' perceptions of their job performance as collectivistic or individualistic. The Cronbach's Alpha and split-half procedure calculations were in the range of past reliability and validity measures for the scale. However, the scores were much lower than the other instruments utilized in this study. This scale has been primarily used in the study of culture and has not been implemented in samples involving the perceptions of people in the work place. The possibility exists that this somewhat restricted the results of the perceptions of the individuals in this study. Perhaps, a more appropriate instrument designed to measure the individual perceptions of group and individualistic behavior of employees in the work place would need to be utilized in future research concerning the exchange of resources.

Future Research

While the results of this study provide some promising results, there are several areas that need to be addressed in future research. First, additional research is needed to determine if the Revised Berg/Wiebe Resource Exchange Scale can be used in almost any work setting to evaluate the exchange of resources and the level of satisfaction with these exchanges. Researchers should administer the scale in settings that include an appropriate balance in the number of individuals that perceive themselves as performing their jobs in "naturally occurring" work groups and as individuals. Second, the scale should be administered to samples other than the health care field to determine if the results of this study will be consistent over the many different types of work settings. The revised scale could be possibly administered in a manufacturing facility to compare the results of the revised scale with the results of the original version of the scale utilized in the study by Johnson (1995). Results of future studies will provide an indication of the generalizability of the results of this study and may also identify areas for improvement in the revised scale as well as areas concerning job satisfaction that need to be addressed by managers and other supervisory personnel.

Additionally, the Revised Berg/Wiebe Resource Exchange Scale could be used in conjunction with other measures to make improvements in many areas of concern to researchers and business professionals interested in the study of resource exchange in the work place. As discussed earlier, the Revised Berg/Wiebe Resource Exchange Scale does provide information that can be very useful to supervisory personnel. This information could be used to make improvement in areas such as motivation, goal setting, individual performance, job enrichment, job satisfaction, and leadership. The advances and improvements that can be made in the area of business appears to be unlimited if the information obtained from the Revised Berg/Wiebe Resource Exchange Scale is appropriately combined with other measures.

Summary

Resource Exchange Theory developed by Foa and Foa (1974) was utilized in this dissertation as a framework to measure the resources workers give and receive in the work place and their satisfaction with those exchanges. Data obtained from the administration of the Revised Berg/Wiebe Resource Exchange Scale and the Individualism-Collectivism Scale provided the necessary information for these analyses.

The results of the study offered support for the issues from past research on Resource Exchange Theory concerning the level of satisfaction for the exchange of resources in relation to proximity and the exchange of intrinsic/extrinsic resources (Berg and Wiebe, 1986, 1989; Johnson, 1995). The results offered support for the establishment of domains for these exchanges of resources as described by Deutsch (1975). The Revised Berg/Wiebe Resource Exchange Scale was found to be a valid and reliable instrument that could be used in conjunction with other measures to measure the exchange of resources in the work place.

This study was exploratory in nature and was only the third attempt to examine the exchange of resources in the work place utilizing a version of the Berg/Wiebe Resource Exchange Scale. Further research will determine if the results of this study are generalizable to the workplace in general and if the Revised Berg/Wiebe Resource Exchange Scale can be used in conjunction with other theories to make significant contributions to the study of job satisfaction.

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APPENDIX

April 30, 1998

Dear Employee:

Our hospital is participating in a study sponsored by the University of Mississippi. This study will examine the exchange of resources and the satisfaction with those resources at the work place. This research is part of a doctoral dissertation by Mr. Larry Gene Bailey under the direction of Dr. Frank A. Wiebe.

All employees and volunteers will be surveyed. Your participation in this survey is important; however, it is voluntary. Your response will be confidential and anonymous. Please do not put your name on the survey. The hospital will receive the research results for you to review. All data will be reported in a combined form that no individual's responses can be detected.

Please complete the survey, place it in the envelope that has been provided, seal the envelope, and return it to your supervisor before you leave today. Your supervisor will place all returned envelopes in a manila envelope that has been provided and will seal it. The supervisor will then place the manila envelope in a box in the office of the administrative assistant. The survey will take approximately fifteen to thirty minutes for you to complete.

This study has been reviewed by the University of Mississippi Institutional Review Board (IRB). The IRB has determined that the study meets the ethical obligations required by federal law and by University policies. If you have any questions or concerns regarding this study, please contact the IRB at 601-232-7482.

Thank you for your participation.

Sincerely,

Noel W. Hart

Noel Hart
Administrator

MOTIVATION QUESTIONNAIRE

PLEASE READ EACH OF THE FOLLOWING SITUATIONS. ANSWER THE QUESTIONS THAT FOLLOW THE SITUATION BY CIRCLING THE APPROPRIATE RESPONSE.

1. In all aspects of the work place have you given loyalty and devotion when you have been given good working conditions?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

2. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

3. In all aspects of the work place have you given loyalty and devotion when you have been given an opportunity to work with friendly people?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

4. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

5. In all aspects of the work place have you given loyalty and devotion when you were told more about what is going on?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

6. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

7. In all aspects of the work place have you given a good days work when you have been given an opportunity to be part of something worthwhile?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

8. How satisfied are you with situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

9. In all aspects of the work place have you given loyalty and devotion when you have been given more pay and benefits?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

10. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

11. In all aspects of the work place have you given solutions to problems when you have been given good working conditions?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

12. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

13. In all aspects of the work place have you given a good days work when you were told more about what is going on?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

14. How satisfied are you with situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

15. In all aspects of the work place have you given solutions to problems when you have been given the opportunity for independence and responsibility?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

16. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

17. In all aspects of the work place have you given loyalty and devotion when you have been given job and financial security?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

18. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

19. In all aspects of the work place have you given a good days work when you were given good working conditions?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

20. How satisfied are you with situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

21. In all aspects of the work place have you given solutions to problems when you have been given an opportunity to work with friendly people?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

22. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

23. In all aspects of the work place have you given solutions to problems when you have been given an opportunity to be part of something worthwhile?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

24. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

25. In all aspects of the work place have you given a good days work when you have been given job training and experience?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

26. How satisfied are you with situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

27. In all aspects of the work place have you given loyalty and devotion when you have been given an opportunity for independence and responsibility?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

28. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

29. In all aspects of the work place have you given a good days work when you have been given job financial security?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

30. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

31. In all aspects of the work place have you given loyalty and devotion when you have been given recognition for a job well done?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

32. How satisfied are you with situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

33. In all aspects of the work place have you given a good days work when you have been given an opportunity to work with friendly people?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

34. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

35. In all aspects of the work place have you given solutions to problems when you have been given recognition for a job well done?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

36. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

37. In all aspects of the work place have you given solutions to problems when you have been given job and financial security?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

38. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

39. In all aspects of the work place have you given a good days work when you have been given an opportunity to be part of something worthwhile?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

40. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

41. In all aspects of the work place have you given loyalty and devotion when you have been given an opportunity to be part of something worthwhile?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

42. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

43. In all aspects of the work place have you given solutions to problems when you have been given job training and experience?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

44. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

45. In all aspects of the work place have you given solutions to problems when you were told more about what is going on?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

46. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

47. In all aspects of the work place have you given loyalty and devotion when you have been given job training and experience?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

48. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

49. In all aspects of the work place have you given a good days work when you have been given recognition for a job well done?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

50. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

51. In all aspects of the work place have you given solutions to problems when you have been given more pay and benefits?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

52. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

53. In all aspects of the work place have you given a good days work when you have been given more pay and benefits?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

54. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

55. In all aspects of the work place have you given a good days work when you have been given the opportunity to do the kind of job you like?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

56. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

57. In all aspects of the work place have you given loyalty and devotion when you have been given the opportunity to do the kind of job you like?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

58. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

59. In all aspects of the work place have you given solutions to problems when you have been given the opportunity to do the kind of job you like?

Almost Always	Frequently	Occasionally	Seldom	Never
A	B	C	D	E

60. How satisfied are you with the situation described above?

Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
A	B	C	D	E

SATISFACTION QUESTIONNAIRE

The purpose of this questionnaire is to give you a chance to tell how you feel about your present job, what things you are satisfied with and what things you are not satisfied with. On the basis of your answers we hope to get a better understanding of the things individuals like and dislike about their jobs.

On this page you will find statements about your present job.

- Read each statement carefully.
- Decide how satisfied you feel about the aspect of your job described by the statement.

Keeping the statement in mind:

- if you feel that your job gives you more that you expected, check the blank under "VS" (Very Satisfied);
- if you feel that your job gives what you expected, check the blank under "S" (Satisfied);
- if you cannot make up your mind whether or not the job gives you what you expected, check the blank under "N" (Neither Satisfied nor Dissatisfied):
- if you feel that your job gives you less than you expected, check the blank under "DS" (Dissatisfied);
- if you feel that your job gives you much less than you expected, check the blank under "VDS" (Very Dissatisfied).

Remember: Keep the statement in mind when deciding how satisfied you feel about that aspect of your job.
Do this for all statements. Please answer every item. Be frank and honest. Give a true picture of your feelings about your present job. Ask yourself: How satisfied am I with this aspect of my job?

VS	means I am very satisfied with this aspect of my job.
S	means I am satisfied with this aspect of my job.
N	means I can't decide whether I am satisfied or not with this aspect of my job.
DS	means I am dissatisfied with this aspect of my job.
VDS	means I am very dissatisfied with this aspect of my job.

ON MY PRESENT JOB, THIS IS HOW I FEEL ABOUT:

		VDS	DS	N	S	VS
1.	Being able to keep busy all the time.	___	___	___	___	___
2.	The chance to work alone on the job.	___	___	___	___	___
3.	The chance to do different things from time to time.	___	___	___	___	___
4.	The chance to be somebody in the community.	___	___	___	___	___
5.	The way my boss handles his employees.	___	___	___	___	___
6.	The competence of my supervisor in making decisions.	___	___	___	___	___
7.	Being able to do things that don't go against my conscience.	___	___	___	___	___
8.	The way my job provides for steady employment.	___	___	___	___	___
9.	The chance to do things for people.	___	___	___	___	___
10.	The chance to tell people what to do.	___	___	___	___	___
11.	The chance to do something that makes use of abilities.	___	___	___	___	___
12.	The way company policies are put into practice.	___	___	___	___	___
13.	My pay and the amount of work I do.	___	___	___	___	___
14.	The chances for advancement on this job.	___	___	___	___	___
15.	The freedom to use my own judgment.	___	___	___	___	___
16.	The chance to try my own methods of doing the job.	___	___	___	___	___
17.	The working conditions.	___	___	___	___	___
18.	The way my co-workers get along with each other.	___	___	___	___	___
19.	The praise I get for doing a good job.	___	___	___	___	___
20.	The feeling of accomplishment I get from the job.	___	___	___	___	___

We want to know if you agree or disagree with some statements. PLEASE READ EACH OF THE FOLLOWING STATEMENTS THEN INDICATE YOUR ANSWER BY CIRCLING THE APPROPRIATE RESPONSE.

1. I prefer to be direct and forthright when I talk with people.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

2. My happiness depends very much on the happiness of those around me.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

3. I would do what would please my family. even if I detested that activity.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

4. Winning is everything.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

5. One should live one's life independently of others.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

6. What happens to me is my own doing.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

7. I usually sacrifice my self-interest for the benefit of my group.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

8. It annoys me when other people perform better than I do.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

9. It is important for me to maintain harmony within my group.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

10. It is important to me that I do my job better than others.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

11. I like sharing little things with my neighbors.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

12. I enjoy working in situations involving competition with others.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

13. We should keep our aging parents with us at home.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

14. The well-being of my co-workers is important to me.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

15. I enjoy being unique and different from others in many ways.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

16. If a relative were in financial difficulty, I would help within my means.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

17. Children should feel honored if their parents receive a distinguished award.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

18. I often do "my own thing".

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

19. Competition is the law of nature.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

20. If a co-worker gets a prize I would feel proud.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

21. I am a unique individual.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

22. To me, pleasure is spending time with others.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

23. When another person does better than I do, I get tense and aroused.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

24. I would sacrifice an activity that I enjoy very much if my family did not approve of it.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

25. I like my privacy.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

26. Without competition it is not possible to have a good society.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

27. Children should be taught to place duty before pleasure.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

28. I feel good when I cooperate with others.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

29. I hate to disagree with others in my group.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

30. Some people emphasize winning; I am not one of them.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

31. Before taking a major trip, I consult with most members of my family and many friends.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

32. When I succeed, it is usually because of my abilities.

Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
A	B	C	D	E

Now we would appreciate some information about you and your job. This information will help us classify the preceding information.

1. Gender: ( ) male ( ) female

2. Race: ( ) White ( ) Afro-American ( ) Hispanic ( ) Other:____________

3. Which of the following is your age group?
( ) 18-34 ( ) 35-44 ( ) 45-54 ( ) 55-64 ( ) 65 & Over

4. Marital status: ( ) Married ( ) Single ( ) Widowed ( ) Divorced

5. Which of the following best reflects your level of education?
( ) Some High School
( ) High School Graduate/GED
( ) Some College/Technical School
( ) College Graduate
( ) Post Graduate

6. As far as you can remember, what was your family's economic status during your childhood?
( ) We lacked bare necessities most of the time.
( ) We were on welfare most of the time or we were without necessities some of the time.
( ) We had bare necessities but little else.
( ) We were comfortable, but did not have much money for luxury items.
( ) We clearly had more than others around us.
( ) We were really wealthy.

7. What is your occupation? ____

8. How long have you worked in the health care industry? ___________________

9. How long have you worked for this employer? ___________________________

10. How long have you lived in the Delta region of Mississippi? _______________

VITA

Larry Gene Bailey was born in Leland, Mississippi on July 24, 1957. He attended Shelby Elementary School, Bayou Academy Junior High School, and graduated from Bayou Academy High School in May 1975. The following August he entered Delta State University and in May, 1979 received the degree of Bachelor of Business Administration in Management. In June 1979 he worked as an assistant manager of Ferretti Building Materials in Shelby, Mississippi, a retail building materials dealer. He reentered Delta State University in August 1979 and in August 1984 received a Masters of Business Administration Degree. He worked as a campus police officer for Delta State University in Cleveland, Mississippi from November 1981 to August 1984. From August 1984 to May 1993, he worked as an assistant professor in management in the Division of Management and Marketing at Delta State University. In January 1987, he entered the University of Mississippi to pursue a Ph.D. in Business Administration.

From June 1993 until the present he has been employed by Mississippi Delta Community College, Moorhead, Mississippi as the Dean of Academic Affairs.

IMAGE EVALUATION TEST TARGET (QA-3)

150mm

6"

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