An Investigation of the Moderating Effects of Personality Variables on the Relationship of Role Conflict and Role Ambiguity to Individual Performance

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AN INVESTIGATION OF THE MODERATING EFFECTS OF PERSONALITY VARIABLES ON THE RELATIONSHIP OF ROLE CONFLICT AND ROLE AMBIGUITY TO INDIVIDUAL PERFORMANCE

BY

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THESIS
Submitted in partial fulfillment of the requirements for the Master of Science degree in Industrial/Organizational Psychology in the Graduate Studies Program of the College of Arts and Sciences University of Central Florida Orlando, Florida

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The purpose of this study is to investigate the moderating effects of personality variables on the relationship of role stress to performance. The sample consisted of 45 males and 57 females from undergraduate psychology classes at the University of Central Florida. Subjects completed the Adjective Check List (Gough & Heilbrun, 1965), a written decision-making exercise, and a derivative of the role conflict and role ambiguity scales developed by Rizzo, House, and Lirtzman (1970). These yielded personality, performance, and stress scores for each subject. Each personality variable (achievement, aggression, autonomy, flexibility, and introversion) was partialled out of the relationship between role conflict and performance and between role ambiguity and performance. T-tests revealed that the partial correlations did not differ significantly from the zero-order correlations. Furthermore, individuals who scored high on a designated personality variable did not have higher mean role stress scores than persons scoring low on that personality variable. These findings indicate that the personality variables are not related to role stress (except for achievement and role ambiguity, p < .01) and that these variables have no significant impact on the relationship between role stress and performance.
# TABLE OF CONTENTS

**LIST OF TABLES.** ............................................................. iv  

**INTRODUCTION.** ............................................................... 1  
  Stress in Organizational Settings. ........................................ 1  
  Role Stress: Role Conflict and Role Ambiguity ......................... 2  
  Stress and Performance .................................................... 6  
  Role Conflict, Role Ambiguity and Performance ......................... 8  
  Personality, Role Stress and Performance ................................ 11  
  Literature Summary .......................................................... 16  
  Problem Statement. ............................................................ 17  

**METHOD.** ........................................................................... 20  
  Subjects ............................................................................... 20  
  Measures .............................................................................. 20  
  Procedures ............................................................................ 23  
  Data Analysis. ....................................................................... 24  

**RESULTS** ........................................................................... 29  

**DISCUSSION.** ..................................................................... 34  

**APPENDIX.** ......................................................................... 41  
  A. Role Conflict/Role Ambiguity Scales. ................................. 41  
  B. Performance Exercise ...................................................... 42  
  C. Subject Solicitation ......................................................... 53  
  D. Subject Consent Form ..................................................... 54  
  E. Subject Debriefing .......................................................... 55  

**REFERENCES.** ................................................................. 56
LIST OF TABLES

1. Male vs. Female Descriptive Statistics and T-values on Five Personality Variables
2. Descriptive Statistics and T-values for Males vs. Females on Performance, Role Conflict, and Role Ambiguity
3. Correlation Matrix of Personality Variables, Role Conflict, Role Ambiguity, and Performance
4. T-scores for Zero-order vs. Partial Correlations
5. Descriptive Statistics and T-values for High vs. Low Scorers on Five Personality Variables
INTRODUCTION

In today's dynamic society, employees from all occupations are subject to job stress. It is a rare worker indeed who has not experienced some form of job stress at one time or another. To understand the importance and necessity of stress research, the impact of stress on the employee must be considered along with the frequency of stress occurrence. The most obvious reason for studying stress is the often demonstrated relationship between stress and performance. Specifically, stress has been linked to decreased individual and organizational performance (this topic will be covered in detail later). Although the results of research investigating this relationship are somewhat mixed, this should not abate work in the area. Rather, the variety of past results depicts the need for greater comprehension of the topic. A simple question may be asked that demonstrates the practical value and potential complexity of stress and performance research. If some type of stress, affects some type of individual, in some type of organizational setting, then what type of response will that individual have, how will the response affect the organization, and what variables will moderate the stress/response relationship? There is certainly much specialized work that should be carried out involving stress and performance.

**Stress in Organizational Settings**

McGrath (1976) hypothesized that there are six possible sources of
stress in an organizational setting. These are task-based stress, stress intrinsic to the behavior setting, stress arising from the physical environment, stress arising from the social environment, stress within the person system, and role-based stress. One of the most studied sources of stress is role-based stress (or role stress) particularly in the form of role conflict and role ambiguity. What is surprising, as well as unfortunate, is the dearth of reported research investigating relationships involving role stress and personality. More prevalent in the literature are studies investigating the effects of organizational characteristics on perceived role stress. Parsons (1951) has suggested that the behaviors and attitudes of individuals at work are a function of the interaction of both organizational factors and personality. As such, the formation of a role definition is both a result of an individual's interaction with the organization and person-specific internal processes. Many researchers have realized this connection and have examined the function of personality in the perception of role stress (e.g., Wolfe & Snoek, 1962; Budner, 1962; Miles, 1976; House, 1974).

Considering what is known (or presumed) regarding role stress and potential correlates, it appears appropriate and judicious to examine the relationship between personality variables and stress and performance. At this point, separate reviews of role stress, performance, and personality are in order.

**Role Stress: Role Conflict and Role Ambiguity**

Following Kahn and Quinn (1970), job stress may be defined as a
demand from any aspect of the work role that has extreme or noxious characteristics, the extremity or noxiousness distinguishing stress from other job characteristics which may result only in mild effects. An example of such a stress is role stress. Role stress has been of great interest to researchers over the last few decades. According to Kahn et al. (1964), there are three separate dimensions of perceived role-related stress: ambiguity, conflict, and overload. Role stress has been studied mostly as role conflict and/or ambiguity. It would be most beneficial at this point to describe what is meant by a "role" in terms of the organization. A role is a set of expectations applied to the incumbent of a particular position by the incumbent and by role senders within and beyond an organization's boundaries (Banton, 1965; Neiman & Hughes, 1951). Furthermore, a role may be thought of as the intersection of social environment and the person. Implied in the definition, roles are not tied to any specific milieu or setting, but rather transcend settings (McGrath, 1970).

Kahn et al. (1964) defined role conflict as the degree of incongruity and incompatibility of expectations associated with role, where congruency and compatibility is judged relative to a set of standards or conditions which impinge upon role performance. Role conflict is further described as the simultaneous occurrence of two or more sets of pressures such that compliance with one would make difficult or impossible compliance with the other. A number of types of role conflict have been named (Kahn et al., 1964) such as intra-sender, inter-sender, inter-role, person-role, and role overload. House and Rizzo (1972) propose the following definitions of these
concepts:

1. Intrasender conflict - the extent to which two or more role expectations from a single role sender are mutually incompatible.
2. Intersender conflict - the extent to which two or more role expectations from one role sender oppose those from one or more other role senders.
3. Person role conflict - the extent to which role expectations are incongruent with the orientations or values of the role occupant.
4. Overload - the extent to which the various role expectations communicated to a role occupant exceed the amount of time and resources available for their accomplishment.

It should be evident that individuals in different roles may experience varying degrees of conflict from a number of sources.

In contrast to role conflict, Budner (1962) described three distinct types of ambiguous situations: (1) novel situations which have no familiar cues, (2) complex situations in which there are a great number of cues to be considered, (3) insoluble or contradictory situations in which different cues suggest different structures. More specifically, role ambiguity may occur when the single or multiple roles which confront the individual are not clearly articulated in terms of behaviors or performance levels expected (Kahn et al., 1964). Role ambiguity describes a situation in which there is inadequate role
sending, that is, when lack of agreement among role senders produces sent expectations that contain logical incompatibilities or that take inadequate account of the needs and abilities of the focal person. When information is lacking or is not communicated, a condition of role ambiguity may result (Kahn et al., 1964).

From the given descriptions of role conflict and role ambiguity, the stress-provoking nature of these situations should be apparent. In simple terms, an individual who perceives any type of role conflict is faced with a problem (or problems) which must be resolved. The degree of difficulty in reaching a solution and the consequences of a decision contribute to the creation of a stressful experience for the individual. The same is true of role ambiguity. If an employee is uncertain of his role or function in the organization, then feelings of stress may accompany this uncertainty. The extent of ambiguity perceived by the individual affects the amount of stress undergone.

Many studies have been conducted that examine the relationship between role conflict or role ambiguity and stress. Kahn et al. (1964) noted that the presence of conflicting and/or ambiguous pressures is considered to indicate a level of organizational stress. Dunham (1978) reports that the heads of departments of comprehensive schools indicated that their stress situations consist mainly of role conflict and role confusion (ambiguity). Role conflict and/or role ambiguity were found to be significantly positively related to tension and anxiety in numerous studies (e.g., Hamner & Tosi, 1974; Kahn et al., 1964; Greene & Organ, 1973; Miles & Petty, 1975; Tosi, 1971). In a study by Aluto et al. (1970), role conflict was found to be
significantly related to nurses' job tension. According to Budner (1962), intolerant people would respond to ambiguous situations with repression, denial, anxiety, discomfort, distortion, or avoidance. In a study of 459 State of Georgia public employees, role conflict and role ambiguity were positively related to stress (DeCotiis & Gryski, 1981). Hamner and Tosi (1974) indicated that the nature of positions at higher levels of an organization is primarily one of solving unstructured tasks and problems, thereby making role ambiguity a more crucial source of stress than role conflict. People in positions at lower levels of the organization find role conflict more stressful because the employee is more dependent on the supervisor (Kahn et al., 1964).

The point of mentioning these studies is to demonstrate relationships found between role conflict and ambiguity and job stress. This study, like so many before it, will address job stress in the form of role conflict and role ambiguity.

**Stress and Performance**

One area that has been studied quite often in connection with stress is job performance. Whether the concern is individual or organizational performance, stress plays an important role in raising or lowering the performance ceiling.

Individual performance has been shown to be related to a number of sources of stress. Results have been considerably mixed and so, a discussion of the literature is in order. A potential source of stress to the individual is the boss or supervisor. It has been suggested
(Weed, Mitchell, & Moffit, 1976) that a considerate leader (e.g. less stress-provoking) may provide pleasant working conditions but may not be the most effective leader in terms of job performance. However, Fiedler et al. (1979) claim that work anxiety and stress narrow the individual's focus, limit his ability to think creatively, and impair memory and cognitive functions. It follows that the presence of a critical audience (e.g. a stress-provoking boss) may have an inhibitory effect on performance of simple and overlearned tasks. However, results suggest that an individual's performance increases as stress increases but only on simple tasks and where quantity is the measure of performance (Schuler, 1980). Unfortunately, this statement is inconsistent with activation theory (Scott, 1966).

The effects of stress on individual performance become more clouded when work by Janis et al. (1969) is considered. Results of their studies and other investigations (McDaniel, 1969; McGrath, 1976) have lead to the conceptualization of an inverted U-curve to represent relationships between stress and performance. According to this notion, there is an optimum value of stress for each individual. However, whether a stressor is functional or dysfunctional for the individual depends on its type. Allen, Hitt, and Greer (1982) suggest that when dysfunctional stress is dominant, the relationship between the level of occupational stress and effectiveness is negative and thus, the inverted U does not apply to all situations. The inapplicability of the inverted U to all situations is supported in a number of studies (e.g. Friend, 1982).
Role Conflict, Role Ambiguity and Performance

Looking more specifically at role stress, role theory hypothesizes that both role conflict and role ambiguity are negatively related to job performance (Schuler, 1975). As expected, there are studies that do not bolster this theory, studies that support it, and other studies with mixed results. In an example of non-supportive research, work by Berkowitz (1980) showed little evidence of a relationship between role constructs and objective performance criteria. Berkowitz points out however, that the objective performance criteria may have been contaminated. In another study, Tosi (1971) found neither role conflict nor ambiguity related to effectiveness which is an aspect of role performance. Conversely, there is a good deal of support for the position that both role conflict and ambiguity are negatively related to performance. Across a variety of samples and measures, role perceptions of both conflict and ambiguity have been found to be unfavorably related to work outcomes of perceived effectiveness and job performance ratings (Miles, 1976). Shalit (1977) found that behavioral effectiveness was negatively related to both the number of possible alternative interpretations a person could have for the situation and the ease with which these interpretations could be ranked for appropriateness. Additionally, role conflict and ambiguity have been found to be negatively correlated with psychological and physical well-being (Jackson, 1983) which certainly has an impact on performance.

In a number of reported research findings, either role conflict or role ambiguity was shown to be negatively related to individual
performance. A study of nurses implied that role conflict impedes performance of routine tasks (Manning, Ismail, & Sherwood, 1981). Role ambiguity was negatively related to performance in a study by Bedeian et al. (1978) involving nurses and respiratory therapists, in research conducted by Brief and Aldag (1976), and in a study by Georgopoles (1965). Explain that as a negative stressor, an ambiguous situation may be seen as a threat or pressure which can make effective performance more difficult. An enlightening study by Schuler (1975) focused attention on job levels within the organization. At lower organizational levels, role conflict and ambiguity were negatively related to performance with ambiguity being more negatively related. At middle levels, role conflict and ambiguity had equivalent negative relationships to performance. Finally, higher level employees' performance was not related to their perceptions of role conflict and ambiguity. From the reported studies it is clear that the relationship between stress (role conflict and role ambiguity) and individual performance is far from simplistic.

Organizational performance, as opposed to individual performance, may also be affected by stress. Factors like absenteeism, turnover, job satisfaction, creativity and innovation, grievances, strikes, accident proneness, etc., can be thought of as indicators of organizational performance. On the more financially tangible side, organizational performance is further defined by measures of profitability, volume sales, etc. All of these indicators of organizational performance may be affected by job stress (Beehr & Newman, 1978; Gupta & Beehr, 1979). Job stress, in disturbing the
psychological and physical well-being of the individual, disrupts the functioning and orientation of the organization. A very serious problem linked to stress is the increase in chance of illness for certain people under stress. Among the diseases or symptoms most frequently related to stress in organizations are peptic ulcers, cardiovascular disorders, and high blood pressure (Schuler, 1980; House, 1974; Caplan, 1971). It is estimated that the economic cost of peptic ulcers and cardiovascular disorders alone in the U.S. is about 45 billion dollars annually (Moser, 1977; Putt, 1970). It must be remembered that any time an employee is kept off the job or performs poorly due to stress-related reasons, these incidents can add up to depress organizational performance.

Role conflict and role ambiguity have been directly mentioned in many studies relative to organizational performance. The results of these studies, however, are not totally consistent. Role theory states that role conflict and role ambiguity will cause decreased organizational effectiveness. According to Miles and Perreault, Jr. (1976), role conflict appears to be associated with a variety of undesirable individual outcomes which are generally regarded as dysfunctional for the organization. House and Rizzo (1972) suggest by their findings that role ambiguity is a better predictor of dependent organizational effectiveness measures (e.g., satisfaction and anxiety) than is role conflict. Yet, from the studies examined by Rizzo et al. (1970), it seems clear that role conflict is associated with coping behavior that would be dysfunctional for the organization, and experiences of stress and anxiety. Also, role ambiguity like role
conflict, results in undesirable consequences for both organizational members and for organizational performance. Positive relationships between role stress (role conflict and role ambiguity) and turnover and/or propensity to leave have been reported in a number of studies (Weitz, 1956; Lyons, 1971; Van Sell, Brief & Schuler, 1979; Brief & Aldag, 1976; Ivancevich & Donnelly, 1974; Sorensen & Sorensen, 1974). However, work by Hamner and Tosi (1974) found role conflict and role ambiguity unrelated to propensity to leave.

From the literature it is clear that role stress is often related to performance (both individual and organizational), but it is not clear when, how, or why this relationship may be observed. In order to better understand the effects of stress on performance, it is of great importance to determine key moderating variables in the stress/performance relationship. With this in mind, individual personality emerges as a prominent factor worthy of examination.

**Personality, Role Stress and Performance**

Important to the understanding of stress and role stress reactions is the examination of the individual personality. According to Wolfe and Snoek (1962), an interest in personality should be developed for three reasons. First, some traits of the person tend to evoke or facilitate certain responses from his associates (e.g. more pressure from supervisor). Second, individuals differ in the extent to which personality predispositions lead to the use of certain kinds of coping responses rather than others. The third reason, and the one most relevant to this study, is the likelihood that some persons will
experience strong role pressures differently from others. Stress results from an imbalance between personal resources and situational needs which affects the person's behavior, psychological and physiological well-being (McGrath, 1970). Not only will an organization's environment influence affective, physiological, and behavioral responses of the individual, but also specific properties of the individual will moderate the relationship between the organizational environment and any individual's affective, physiological, and behavioral responses (Manning, Ismail, & Sherwood, 1981).

As already suggested, the amount of conflict experienced by an individual in the performance of his work role is by no means determined solely by the pressures to which he is exposed in his work environment. Personality is also critical. Additionally, there is evidence that role ambiguity is not uniformly aversive for all employees; instead, its relationship to affective role responses tends to be moderated by certain personality characteristics (Beehr, Walsh, & Taber, 1976; Brief & Aldag, 1976; Johnson & Stinson, 1975). Certain reactions to role experiences may lead to modifications in the individual's personality organization (Wolfe & Snoek, 1962). These changes may be symptomatic of good or bad mental health, affecting the person's ability to carry on the normal functions of living. Second, such changes may have specific effects upon his performance in the work situation. Demonstrating the value of personality studies, Cohen and Margolis (1973) report that individual differences in stress tolerance is one category of research funded by the National Institute of
Occupational Safety and Health, reflecting their belief that characteristics of the person are important. With these facts and viewpoints fresh in one's mind, the importance of personality in connection with stress should be rather evident. It is certainly enigmatic, considering the potential impact of such information, that more research examining personality variables as moderators in the stress/performance relationship has not been conducted.

Of the comparatively few studies in the area that have investigated the influences of individual differences, most have concluded that employees do not respond uniformly to such role-related phenomena as role conflict and role ambiguity (Van Sell, Brief, & Schuler, 1976). Looking first at role conflict, it has been suggested (Bedeian et al., 1978) that individuals who take pleasure in change and variety and display a high self-confidence, a high need for achievement, an assertive individuality, a concern for personal friendship, and desire for dominance and autonomy are more likely to experience higher levels of role conflict than others who display opposite characteristics. Work by Wolfe and Snoek (1962) also relates certain personality variables to role conflict. Role conflict was experienced more by individuals who had high aspirations, were flexible, or were introverted than by people with opposing qualities. In an intensive study (Kahn et al., 1964; Kahn, 1964), significant relationships were noted between role conflict and factors such as sociability, defensiveness, introversion, self-confidence, emotional sensitivity, and flexibility-rigidity. Role ambiguity, like role conflict, has been studied in this area. In addition to its
relationship with an individual's need for achievement, role ambiguity also appears to be directly associated with an individual's need for certainty and predictability (Schuler, 1980). Findings suggest that persons with high achievement needs may be better suited for roles which cause them to experience role conflict (Miles, 1976). This does not appear to apply to role ambiguity. However, according to Abdel-Halim (1980), research on need for achievement and locus of control relative to role ambiguity is highly inconclusive, sometimes even contradictory. Important information on personality is obtained through the work of Bedeian et al. (1980) whose study focused exclusively on personality correlates of role stress (i.e. role conflict and role ambiguity). Role conflict was positively related with exhibition. On the other hand, experienced role ambiguity was positively correlated with defensiveness, self-control, endurance, and aggression, and was negatively correlated with order, nurturance, and deference. Also, Rizzo, House, and Lirtzman (1970) found that role ambiguity correlated more highly than role conflict with autonomy.

Apart from direct studies in role conflict and role ambiguity there is evidence of relationships between personality variables and stress. Self-esteem is associated with low anxiety and increased personal effectiveness in a variety of settings (Lange & Jakubouski, 1977). It appears that high self-esteem and high assertiveness are both associated with low stress. Kobasa (1979) maintains that high stress/low illness executives show, by comparison with high stress/high illness executives, more hardy personalities, that is, have a stronger commitment to self, an attitude of vigorousness toward the environment,
a sense of meaningfulness, and an internal locus of control. Furthermore, according to Kobasa (1982), commitment emerges, from a variety of existential personality variables, as most relevant to stress resistance. Alienation on the other hand, leads persons to feel powerless in the face of stressful situations (Kobasa & Maddi, 1977) and thereby vulnerable to their illness provoking effects.

The literature on stress is full of references to the Type A personality, which is characterized by impatience, ambition, competitiveness, and aggressiveness (House, 1974; Jenkins, Rosenman, & Zysanski, 1974). Rosenman et al. (1970) describe the Type A person as hard driving, persistent, involved in work, oriented toward leadership and achievement, and having a sense of time urgency. On certain tasks, this personality type is related to poor performance (Friend, 1982; Glass et al., 1974). More importantly, a large and growing body of literature indicates that men with this certain type of behavior pattern or personality are prone to coronary heart disease. Under potentially stressful conditions, Type A persons are more likely to perceive stress and to develop heart disease (Caplan, 1971; House, 1974; Caplan & Jones, 1975; Jenkins et al., 1974; Jenkins, 1976). For the organization, health of employees certainly affects overall performance.

Although it may appear that a substantial number of personality factors have been examined in relation to stress, the research to date has merely touched the surface of this bountiful area. Very few studies have investigated the stress/performance relationship as moderated by personality variables. On a few rare occasions, variables
like autonomy or need for achievement have been studied as moderators of role stress/performance (Morris & Snyder, 1979; Johnson & Stinson, 1975). However, these variables were investigated in studies aimed only at organizational performance measures (e.g., organizational commitment, job involvement, propensity to leave, satisfaction) and not individual performance. More research must be conducted that will utilize personality variables in obtaining solutions to complex stress and performance questions.

**Literature Summary**

Many researchers have found strong associations between perceptions of role conflict and/or role ambiguity and symptoms of stress (e.g., anxiety, tension, etc.) in their subjects. As such, role conflict and role ambiguity have been targets of a multitude of research efforts. One area of unlimited interest is the effects of role conflict and role ambiguity on individual and organizational performance. Although numerous studies have demonstrated negative relationships between stress and performance, it is impossible to conclude that increased stress (e.g., role conflict or role ambiguity) causes decreased performance in all situations. Various studies have been nonsupportive of a negative stress/performance relationship making such a conclusion ill-advised. It is clear from the mixture of results that other variables may influence this relationship.

Personality has received much attention in connection with stress. Most of the research has examined personality types (e.g., Type A) rather than specific personality variables. Of the personality
variables that have been studied, many have exhibited correlations with role conflict and/or role ambiguity. Unfortunately, these investigations usually have had no outward concern with performance. Greatly needed, but remaining virtually nonexistent in the literature, are studies exploring the moderating effects of personality variables on stress/performance relationships.

**Problem Statement**

The purpose of this study is most clearly delineated when put forth as a question. Do various personality variables moderate the relationship between stress and performance? Actually, the model to be tested here is the affirmative answer to this question. This investigation will attempt to demonstrate the moderating effects of certain personality variables on stress/performance relationships. Based on the results, it may be feasible to say that certain personality types are more sensitive to stress and therefore, stress will have a more pronounced impact on performance for these individuals. In other words, with certain personality types there is a significant relationship between stress and performance, but with other personality types there is not. Research in this area may uncover results with strong implications for multifarious organizations. It should be apparent that functions such as selection and placement could be greatly enhanced through the understanding of personality effects.

In this study, a number of hypotheses will be tested:

**Hypothesis I:** The correlation between role conflict and
performance will change significantly when personality variables are partialed out.

Hypothesis II: The correlation between role ambiguity and performance will change significantly when personality variables are partialed out.

The personality variables of interest are achievement, autonomy, aggression, flexibility, and introversion. These variables were selected due to their demonstrated relationships to role conflict or role ambiguity (see preceding review of personality variables). This relationship is further investigated in this study by way of five more hypotheses.

Hypothesis III: Subjects who score high on need for achievement will perceive more role conflict and role ambiguity than individuals who score low on need for achievement.

Hypothesis IV: Subjects who score high on autonomy will perceive more role conflict and role ambiguity than those who score low on autonomy.

Hypothesis V: Subjects who score high on aggression will perceive more role conflict and role ambiguity than those who score low on aggression.
Hypothesis VI: Subjects who score high on flexibility will perceive more role conflict and role ambiguity than those who score low on flexibility.

Hypothesis VII: Subjects who score high on introversion will perceive more role conflict and role ambiguity than those who score low on introversion.
METHOD

Subjects

The subjects used in this study consisted of 102 undergraduate students from the University of Central Florida. Subjects were obtained from two psychology classes. One class was an introductory psychology course composed primarily of sophomores. These students were near the end of their semester. The other class was an upper-division social psychology course composed of a mixture of sophomores, juniors, and seniors. These students were in their second week of classes. The total sample contained 45 male subjects and 57 female subjects. Subjects took part in the study on a voluntary basis. Both classes showed a 100% volunteer rate. Of the 106 subjects who participated, 102 of these had usable data.

Measures

The personality variables of interest (achievement, autonomy, aggression, flexibility, and introversion) were measured using Gough and Heilbrun's (1965) Adjective Check List. This instrument contains 300 adjectives (comprising 21 experimental scales and three indices) representing a variety of characteristics commonly used to describe a person. Subjects were required to check as many adjectives as they considered to be descriptive of themselves. Gough and Heilbrun (1965) report a mean .54 and a range (.01 to .86) of the mean test-retest
reliabilities for the words on the list. In addition, they report a range of .60 to .86 of test-retest reliabilities and an alpha coefficient range of .56 to .89 for the scales of interest in this study. The scales are achievement, autonomy, aggression, change (to be used as an indicator of flexibility), and affiliation and exhibition (which will be used to tap introversion). The scales of change, affiliation and exhibition were selected because a review of the content of these scales indicates that they are measuring the same concepts as flexibility and introversion respectively. These scales, according to Bouchard (1968), show significant relationships to the corresponding scales of the Edwards Personal Preference Schedule (EPPS) and/or the scales of the Self-Rating Schedule (SRS). This checklist will be used because of its attractiveness in a number of respects. First, its reliability for both sexes has been established (Bedeian, Armenakis, & Curran, 1980). Second, in its design, efforts were made to control for social desirability and acquiescence. Additionally, the ACL has the advantage of being normative rather than ipsative in nature.

Role conflict and role ambiguity were measured using portions of the scales developed by Rizzo, House, and Lirtzman (1970). These scales were chosen because of their established psychometric properties (Schuler, Aldag, & Brief, 1977; House, Levanoni, & Schuler, 1981) and wide usage in research. Reliabilities have been found on the original 30-item scale of .816 to .820 for role conflict and .780 to .808 for role ambiguity. Rizzo et al. (1970) report an intercorrelation of .25 (p < .05) between the two role measures for one sample of 200 subjects.
and an intercorrelation of .01 for another sample of 400 subjects.

The present study utilized 23 items (12 to measure role conflict and 11 to measure role ambiguity) from the Rizzo et al. (1970) scales (see Appendix A). These items represent the 23 items which had the highest factor loadings from the original scale of 29 items (plus one duplicate item). Items that had factor loadings of less than .30 according to Rizzo et al. (1970) were omitted from the present study. For the purposes of this study, all of the remaining items were rewritten in the past tense. In addition, items 5, 12, and 14 were altered in order to make them more suitable for the task at hand. Due to these changes, it was felt that a reliability test was appropriate for each of the role scales used in this study. A Rulon test for reliability (similar to coefficient alpha) was calculated for role conflict and for role ambiguity.

Subjects were asked to respond to each statement on the instrument using a 5-point scale ranging from "very false" to "very true". They were asked to use their personal perceptions of a previously completed decision-making exercise as a basis for their responses.

A written decision-making exercise was administered in order to obtain a performance score for each subject (see Appendix B). In this exercise, each subject was assigned the fabricated role of test proctor and was provided with background information (chain of command, codes, etc.). A situation was presented whereby the subject (as class proctor) observes a student apparently cheating on an exam. He/she was then required to make a decision (e.g., A or B) based on analysis of background information, the initial situation, decision consequences,
etc. In accordance with the subject's choice, he/she was given a new situation requiring another decision. Again, the subject had to analyze existing information to make the correct decision. This procedure occurs one more time leading to a final decision on the part of the subject. In total then, the subject was asked to make three decisions. The exercise was designed so that the decisions are not easy to make. Furthermore, information to be used by the subjects in decision-making was designed to create perceptions of role conflict and role ambiguity in the subject. The reliability of the exercise was assessed by computing the average test item validity and using this as an estimate of internal consistency.

Procedure

Data were collected on subjects from two psychology classes at their respective classroom sites. Data on 54 subjects were obtained from one class while data from 48 students were obtained from the other class. All subjects were read the subject solicitation (see appendix C). However, subjects from one class were told that they might receive extra-credit for doing well on the decision-making exercise. No statement of this kind was made to the other class. A t-test was calculated and no significant difference in performance was found to exist between the two classes. The first subject group (i.e., those who were told of possible extra-credit) had significantly lower role conflict scores and role ambiguity scores than the second subject group. If the different instructions for the two classes had any noteworthy effects, there would have been a difference in mean
performance scores for the two groups and/or higher mean stress scores in the first group than the second group. As neither of these results were found, it is believed that the different instructions had no significant effects on the subjects' scores. Therefore, from this point on, the two classes will be dealt with as one sample. It should be noted that the higher stress scores in the second group may have been due to 1) more upperclassmen in that group leading to higher stress from harder courses, graduation anxiety, etc. and/or 2) this group was at the beginning of the semester and may have been more anxious due to their uncertainty about the class, the instructor, etc.

All students were asked to sign a consent form (see appendix D) if they chose to participate. Next, subjects were asked to complete the Adjective Check List, responding to each item as quickly as possible. This step took approximately ten minutes. After everyone had completed the ACL, the decision-making exercise was administered. Instructions for the exercise were read aloud and subjects were allotted fifteen minutes to complete the exercise. Immediately after finishing the decision-making exercise, subjects were required to respond to the role conflict and role ambiguity instrument. This took approximately five minutes. After everyone was finished, all materials were collected and subjects were debriefed (see appendix E). Total time in the classroom was approximately 40 minutes.

Data Analysis

The Adjective Check List was used to determine personality scores for each individual. Scores for achievement, aggression, and autonomy
were obtained by using the corresponding scales of the ACL. The ACL scale for change was used as a measure of flexibility. The ACL scales of affiliation and exhibition were added together to measure introversion (a low score means higher introversion). The check list was hand scored.

The personality data were analyzed for differences between males and females. No significant differences were found as depicted in Table 1.

A performance score for each subject was the score he/she attained on the decision-making exercise. The exercise utilized an objective scoring method with scores ranging from one to ten points. There were exactly ten possible paths that a subject could travel as a result of his/her three decisions. No two paths have the same point value. The subject was assigned a performance score equivalent to the point value of the decision path followed. No significant difference was found between male performance and female performance on the decision-making exercise (see Table 2).

The scoring procedure for role conflict and role ambiguity is also important. As stated earlier, subjects responded to statements by using a 5-point scale ranging from "very false" to "very true". Each scale (i.e., role conflict and role ambiguity) was scored by adding the scores of the relevant items to get a final score for role conflict and a final score for role ambiguity. However, depending on the wording direction of the statement, items were scored so that the greater the score, the greater the perceived stress. There were no significant differences between males and females on their scores for role conflict.
Table 1

Male vs. Female Descriptive Statistics and T-Values on Five Personality Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sex</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
<th>t/d.f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>M</td>
<td>11.40</td>
<td>5.96</td>
<td>.888</td>
<td>.516/100</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>11.95</td>
<td>4.76</td>
<td>.630</td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>M</td>
<td>4.51</td>
<td>4.92</td>
<td>.733</td>
<td>1.46/100</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>3.16</td>
<td>4.42</td>
<td>.585</td>
<td></td>
</tr>
<tr>
<td>Aggression</td>
<td>M</td>
<td>-1.71</td>
<td>5.92</td>
<td>.833</td>
<td>.649/100</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>-2.42</td>
<td>5.11</td>
<td>.677</td>
<td></td>
</tr>
<tr>
<td>Flexibility</td>
<td>M</td>
<td>5.82</td>
<td>3.11</td>
<td>.464</td>
<td>.045/100</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>5.79</td>
<td>4.01</td>
<td>.531</td>
<td></td>
</tr>
<tr>
<td>Introversion</td>
<td>M</td>
<td>23.07</td>
<td>8.90</td>
<td>1.33</td>
<td>.140/100</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>22.81</td>
<td>9.62</td>
<td>1.27</td>
<td></td>
</tr>
</tbody>
</table>

*p<.05  **p<.01
Table 2

Descriptive Statistics and T-Values for Males vs. Females on Performance, Role Conflict, and Role Ambiguity

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sex</th>
<th>Mean</th>
<th>Standard Error</th>
<th>Variance</th>
<th>t/d.f.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>M</td>
<td>5.18</td>
<td>.458</td>
<td>9.42</td>
<td>.942/100</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>5.77</td>
<td>.428</td>
<td>10.46</td>
<td></td>
</tr>
<tr>
<td>Role Conflict</td>
<td>M</td>
<td>32.47</td>
<td>.937</td>
<td>39.53</td>
<td>.709/100</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>33.37</td>
<td>.854</td>
<td>41.52</td>
<td></td>
</tr>
<tr>
<td>Role Ambiguity</td>
<td>M</td>
<td>25.18</td>
<td>.932</td>
<td>39.06</td>
<td>.816/100</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>26.17</td>
<td>.799</td>
<td>36.36</td>
<td></td>
</tr>
</tbody>
</table>

*p<.05  **p<.01
and role ambiguity (see Table 2). Due to the fact that males and females did not differ on personality, performance, and role stress scores, any further statistical differentiation of males and females was not pursued.

Pearson's r-values were calculated for all of the pairs of variables in this study. A correlation matrix was developed utilizing these values.

A number of correlations were computed between role conflict and performance with each of the five personality variables partialed out of the relationship. The same was done between role ambiguity and performance. The extent of the difference between zero-order correlations and partial correlations was determined. For this purpose, correlations were converted to Fisher's z-scores and then analyzed using a t-test.

As a final step in the data analysis, subjects were divided into two groups (high and low) on each of the five personality variables. Cut-off scores for the high and low groups were set at the whole number closest to the median. Means were calculated on role conflict and role ambiguity for each of the ten groups. T-tests were performed to determine if there were significant differences between high and low groups on mean levels of role conflict and/or role ambiguity. This was done for each of the five personality variables.
RESULTS

The reliability of the role conflict and role ambiguity instrument was determined. A Rulon (1939) coefficient of .56 was attained for the items measuring role conflict while the items assessing role ambiguity yielded a value of .36. The Rulon method (which is similar to coefficient alpha) was selected due to its appropriateness for use with large, unbiased samples and its characteristic conservative estimate. The reliability of the performance instrument (i.e., the decision-making exercise), using average item validity as an estimate, was calculated at .92.

Table 3 shows a number of significant relationships between the variables in this study. The following correlations were found to be significant at p<.01; achievement and introversion, aggression and autonomy, autonomy and flexibility, autonomy and introversion, flexibility and introversion, achievement and role ambiguity, role conflict and role ambiguity, and role conflict and performance. The correlations between achievement and autonomy, aggression and introversion, and autonomy and performance were significant at p<.05.

Partial correlations were calculated between each of the role variables and performance with each of the five personality variables partialed out of the relationship. The correlations were converted to Fisher's z scores. Then, t-tests were used to determine if the partial correlations were significantly different from the zero-order
<table>
<thead>
<tr>
<th></th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
<th>(8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>.16</td>
<td>.21*</td>
<td>.19</td>
<td>-.60**</td>
<td>-.19</td>
<td>-.29**</td>
<td>.17</td>
</tr>
<tr>
<td>Aggression</td>
<td>(2)</td>
<td>1.0</td>
<td>.64**</td>
<td>.19</td>
<td>-.23*</td>
<td>.01</td>
<td>-.05</td>
</tr>
<tr>
<td>Autonomy</td>
<td>(3)</td>
<td>-</td>
<td>1.0</td>
<td>-.35**</td>
<td>-.39**</td>
<td>.02</td>
<td>-.06</td>
</tr>
<tr>
<td>Flexibility</td>
<td>(4)</td>
<td>-</td>
<td>1.0</td>
<td>-.54**</td>
<td>-.08</td>
<td>-.15</td>
<td>-.10</td>
</tr>
<tr>
<td>Introversion</td>
<td>(5)</td>
<td>-</td>
<td>-</td>
<td>1.0</td>
<td>-.12</td>
<td>-.18</td>
<td>.08</td>
</tr>
<tr>
<td>Role conflict</td>
<td>(6)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.0</td>
<td>.64**</td>
<td>-.25**</td>
</tr>
<tr>
<td>Role ambiguity</td>
<td>(7)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.0</td>
<td>-.14</td>
</tr>
<tr>
<td>Performance</td>
<td>(8)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.0</td>
</tr>
</tbody>
</table>

*p<.05  **p<.01
correlations. Table 4 displays the partial correlations and pertinent t values. The t-tests resulted in no significant differences between the partial and whole correlations. The t statistic would have had to attain a value of 1.98 to reach significance at the \( p < .05 \) level. The results given in Table 4 do not support the hypotheses which state that the correlation between role conflict or role ambiguity and performance will change significantly when personality variables are partialled out.

Hypotheses III through VII are not supported by the information presented in Table 5. These hypotheses predict that individuals who score high on a specific personality variable will have higher mean stress scores than individuals who score low on that personality variable. Subjects who scored high on a specific personality scale generally showed no difference in perceived role conflict or ambiguity than those who scored low on the personality variable. In fact, subjects who scored high on achievement or autonomy showed significantly lower role ambiguity scores than individuals who scored low on achievement or autonomy.
Table 4

T-scores for Zero-order vs. Partial Correlations

<table>
<thead>
<tr>
<th>Variable Removed</th>
<th>Partial Correlation</th>
<th>t/d.f.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation between</td>
<td></td>
<td></td>
</tr>
<tr>
<td>role conflict and</td>
<td>achievement</td>
<td>-.23</td>
</tr>
<tr>
<td>performance</td>
<td>aggression</td>
<td>-.26</td>
</tr>
<tr>
<td></td>
<td>autonomy</td>
<td>-.26</td>
</tr>
<tr>
<td></td>
<td>flexibility</td>
<td>-.26</td>
</tr>
<tr>
<td></td>
<td>introversion</td>
<td>-.25</td>
</tr>
<tr>
<td>Correlation between</td>
<td></td>
<td></td>
</tr>
<tr>
<td>role ambiguity and</td>
<td>achievement</td>
<td>-.10</td>
</tr>
<tr>
<td>performance</td>
<td>aggression</td>
<td>-.14</td>
</tr>
<tr>
<td></td>
<td>autonomy</td>
<td>-.13</td>
</tr>
<tr>
<td></td>
<td>flexibility</td>
<td>-.16</td>
</tr>
<tr>
<td></td>
<td>introversion</td>
<td>-.13</td>
</tr>
</tbody>
</table>

*p<.05  **p<.01
Table 5

Descriptive Statistics and T-values for High vs. Low Scorers on Five Personality Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Stress</th>
<th>Mean</th>
<th>Variance</th>
<th>t/d.f.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>role conflict</td>
<td>31.93/34.35</td>
<td>40.32/37.26</td>
<td>1.96/100</td>
</tr>
<tr>
<td></td>
<td>role ambiguity</td>
<td>24.11/27.48</td>
<td>38.81/30.29</td>
<td>2.88/100**</td>
</tr>
<tr>
<td>Aggression</td>
<td>role conflict</td>
<td>33.38/32.73</td>
<td>37.66/43.65</td>
<td>.51/100</td>
</tr>
<tr>
<td></td>
<td>role ambiguity</td>
<td>25.00/26.45</td>
<td>36.42/37.96</td>
<td>1.20/100</td>
</tr>
<tr>
<td>Autonomy</td>
<td>role conflict</td>
<td>33.06/33.08</td>
<td>46.44/34.57</td>
<td>.018/100</td>
</tr>
<tr>
<td></td>
<td>role ambiguity</td>
<td>24.40/27.04</td>
<td>44.56/26.94</td>
<td>2.22/100*</td>
</tr>
<tr>
<td>Flexibility</td>
<td>role conflict</td>
<td>32.62/33.59</td>
<td>41.24/39.41</td>
<td>.774/100</td>
</tr>
<tr>
<td></td>
<td>role ambiguity</td>
<td>24.64/26.94</td>
<td>40.86/31.06</td>
<td>1.92/100</td>
</tr>
<tr>
<td>Introversion</td>
<td>role conflict</td>
<td>33.85/32.26</td>
<td>43.35/36.52</td>
<td>1.27/100</td>
</tr>
<tr>
<td></td>
<td>role ambiguity</td>
<td>26.69/25.06</td>
<td>35.27/41.85</td>
<td>1.33/100</td>
</tr>
</tbody>
</table>

*p<.05  **p<.01

Note. For means and variances, numerator refers to high scorers and denominator refers to low scorers on the personality variable.
DISCUSSION

Hypotheses I and II were not supported by the results of this study. The hypotheses state that the correlation between role conflict (or role ambiguity) will change significantly when personality variables are partialed out. Table 4 displays the results of t-tests designed to investigate these hypotheses. It is clear that the t statistic is far from significant in any of the ten cases. It was felt that the non-spectacular reliabilities of the role conflict and role ambiguity scales (.56 and .36 respectively) may have had an influence on these results. For this reason, the correlations between role conflict and performance and between role ambiguity and performance were corrected for attenuation. This yielded new correlation coefficients of -.35 and -.25 respectively. These values were then tested against the partial correlations for significant differences. Again, no significant differences were found between the corrected zero-order correlations and the related partial correlations. It appears that the personality variables in this study had no impact on the relationship between stress and performance.

Hypotheses III through VII deal specifically with the five personality variables in relation to stress scores. It was hypothesized that subjects who score high on the personality variable would perceive more role conflict and role ambiguity than those who scored low on the personality variable. These hypotheses were worded
as such to clearly expose any positive relationships found the personality variables and stress scores. Past research has demonstrated positive relationships between each of the personality variables (achievement, aggression, autonomy, flexibility, and introversion) in this study and role conflict and/or ambiguity. However, the results of this study do not support those findings. Table 3 displays the correlation coefficients between personality variables and role variables. Only one out of ten correlations was found to be significant and, curiously enough, it is a negative correlation. In fact, although findings are for the most part insignificant, it is worth noting that eight of the ten correlation coefficients are negative values. Looking specifically at hypotheses III through VII, Table 5 displays results which are totally nonsupportive of these hypotheses. Only two significant t-values were obtained and in both cases, low scorers on the personality variable perceived more role ambiguity than did high scorers on that personality variable. Actually, according to Table 5, the trend is for low scorers on the personality variable to perceive more stress than high scorers (e.g., seven out of ten cases). This is consistent with the relevant correlations in Table 3.

It is reasonable at this point to try to explain why the results of this study turned out as they did. A large concern revolves around how well the concepts of role conflict and role ambiguity were assessed in this study. The reliability coefficients for these variables have already been mentioned. These modest reliabilities should make one wary of accepting as irrefutable, statistics involving the role
conflict or role ambiguity scores. Furthermore, as can be seen in Table 3, a significant positive correlation (.64) was found between role conflict and role ambiguity. Rizzo et al. (1970) report an intercorrelation of .25 (p<.05, n=200) between the two original role scales and an intercorrelation of .01 for another sample (n=400). Bedeian et al. (1980) found an intercorrelation of .38 from a sample of 202 nursing personnel. From these reports it seems reasonable to assume that a sample of only 102 individuals would yield an intercorrelation of considerable magnitude. The correlation between role conflict and role ambiguity obtained in this study does not appear to be all that unusual. It is however, much higher than desired. The instrument probably would have been far more effective had a larger sample been employed. As it turned out in this study, role conflict and ambiguity scales appear to have been measuring rather similar constructs.

Another finding that certainly may have had an impact on this study's results, was the low stress scores of the subjects in general. An average score on the role conflict scale should have been approximately a 36 (i.e. 3 x 12). An average score on the role ambiguity scale should have been approximately a 33 (i.e. 3 x 11). As it turned out, average subject stress scores were below these figures. If a high role conflict score is designated at 42 (i.e. 3.5 x 12), then only nine subjects perceived a high degree of role conflict. If a high role ambiguity score is designated at 38.5 (i.e. 3.5 x 11), then only one subject perceived a great deal of role ambiguity.

These findings are important in that having high-stress
individuals is critical to this study. In order to determine the impact of personality on stress and performance, there must be a high-stress group. One of the key elements underlying this research is the assumption that certain individuals possess personality characteristics which are related to an elevated perception of stress. This assumption was not realized in the present study. It is also important to have a high-stress group for the correlation of stress to performance. The correlations between role conflict and performance and between role ambiguity and performance (after correcting for attenuation) were both significant at $p < .01$. Had there been some higher stress scores to include in the data analysis, Table 3 may have been displaying quite different correlations between personality variables and role variables and between role variables and performance scores.

The reason for the generally low stress scores is uncertain. The lack of reliability of the role scales is one possibility. Perhaps a larger sample would have produced some higher stress scores. It is possible that the present sample was, in actuality, a low-stress group. Assuming none of these conditions to be true, another reasonable conjecture would be that the performance exercise itself was not sufficiently stressful. Although the exercise was specially designed to induce feelings of role conflict and ambiguity in subjects, it is obvious that this goal was not satisfactorily achieved. If the blame lies with the decision-making task then this instrument surely had deleterious effects on the study. However, it is difficult to claim with certitude, the reason for the low mean stress scores in the
present sample.

The personality variables in this study (achievement, aggression, autonomy, flexibility, and introversion) showed a number of significant intercorrelations (see Table 3). These were consistent with intercorrelations reported by Gough and Heilbrun (1965) for the Adjective Check List scales used in this study (i.e. achievement, aggression, autonomy, change, affiliation, and exhibition). The ACL appears to have adequately measured the personality characteristics of subjects. Although the overlap between personality scales was expected, it should be remembered that this overlap may have had an effect on the direction and magnitude of the correlations between personality variables and role stress.

Moving away from stated hypotheses, the correlations between role variables and performance deserve some attention. The correlation found between role conflict and performance was significant at the $p<.01$ level. After correcting for attenuation, the correlation between role ambiguity and performance was also significant at $p<.01$. These are important findings for a number of reasons. The literature is indeed mixed as far as the relationship between stress and performance is concerned. A large portion of results indicate that there is a negative relationship between stress and performance. Many studies have found no significant correlations between stress and performance while other studies actually depict a positive relationship between the two. The significant relationship found between role conflict and performance supports the body of research that has found stress to be negatively related to performance. The correlation between role
ambiguity and performance is also in a negative direction and thus bolsters the findings.

The main finding of the present study, aside from any aforementioned qualifications, is that personality variables do not appear to moderate the relationship between role conflict or ambiguity and individual performance. When personality variables were partialed out of the stress/performance relationship, no significant changes occurred in the correlation coefficient. Of course, there are numerous personality variables to be considered when doing this type of research. This study has examined only five of them. These five variables were selected due to their demonstrated relationships to role conflict and/or ambiguity. However, the variables did not behave as was expected in this research effort. What exactly are the implications of the present findings? If personality really has no bearing on the relationship between stress and performance then the focus of certain selection and placement policies should be reexamined. When a potential range of stress has been estimated for a position, it may be unnecessary or unwise to utilize personality characteristics in the selection or placement process. Of course, personality of the individual may have importance for a multitude of other reasons and thus should be considered when pertinent. However, his study implies that it would not be useful for an employer to measure the personality traits of candidates for the purpose of matching individuals with jobs of specified stress levels.

This is not to say that research on personality relative to stress and performance should be abandoned. The relationship between stress
and performance is quite complicated and should be investigated from all angles. Consistent results in opposition to the present study would hold great meaning in the areas of selection and placement of human resources. The results of this study suggest that personality need not be of great concern to the researcher. Other studies have suggested otherwise.

It is probable that role stress is difficult to realistically induce through a paper-and-pencil exercise. Future research should, if possible, focus on situations where role conflict and ambiguity have already been identified. At that point it would be easy to gather personality data. Performance data may prove to be the most difficult to collect and interpret as it needs to be as objective as possible. It would be fatuous to suggest, especially after reviewing the results of this study, that only personality should be examined in connection with stress and performance. The varied literature espouses the need for research that takes into account both individual and organizational variables. At the present level of understanding, studies that probe only personality or organizational variables in relation to stress and performance are needed and can provide valuable information and insight. However, research in the area should ultimately shift to the simultaneous investigation of personality, organizational variables, and any other factors which may affect the stress/performance relationship.
APPENDIX A

ROLE CONFLICT/ROLE AMBIGUITY SCALES

S.S. #

Respond to the following items using the scale which appears below. Your answers should be based upon your perceptions and feelings during the previously completed decision-making exercise. Insert your rating in the parentheses following the item.

**RATING SCALE**

<table>
<thead>
<tr>
<th></th>
<th>very false</th>
<th>false</th>
<th>not sure</th>
<th>true</th>
<th>very true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. I felt certain about how much authority I had. ( )
2. Clear, planned goals and objectives for my job. ( )
3. I had to do things that should have been done differently. ( )
4. Lack of policies and guidelines to help me. ( )
5. I was able to act the same regardless of the individual or group I was dealing with. ( )
6. I worked under incompatible guidelines and policies. ( )
7. I knew that I had divided my time properly. ( )
8. I received an assignment without the manpower to complete it. ( )
9. I knew what my responsibilities were. ( )
10. I had to buck a rule or policy in order to carry out an assignment. ( )
11. I had to "feel my way" in performing my duties. ( )
12. I felt certain about how I would be evaluated. ( )
13. I had just the right amount of work to do. ( )
14. I worked with two or more groups or individuals who operated quite differently. ( )
15. I knew exactly what was expected of me. ( )
16. I received incompatible requests from two or more people. ( )
17. I did things that were apt to be accepted by one person and not by others. ( )
18. I received an assignment without adequate resources and materials. ( )
19. Explanation was clear of what had to be done. ( )
20. I worked on unnecessary things. ( )
21. I had to work under vague directives or orders. ( )
22. I performed work that suits my values. ( )
23. I did not know if my work would be acceptable. ( )
APPENDIX B

PERFORMANCE EXERCISE

INSTRUCTIONS

You will be given a number of situations each of which require you to make a decision. Beginning with the page entitled "Initial Situation", you will make your decisions based on all available information. After the first choice is made, follow directions to the next page and so on. You will have fifteen minutes to complete the exercise.

You will be making a total of three decisions. Please do not look ahead until you have circled your choice. Please do not go back and change a response once you have circled a choice. The success of this project depends on your integrity and conscientious adherence to directions. In addition, it is critical that you try to do your best on the exercise. Not only is it critical to the study but it is to your advantage as well. Good performance on this exercise will entitle you to participate in the next phase of the study for additional extra credit. Thank you for your honesty and your best effort. Good luck!

BACKGROUND INFORMATION

You are to consider yourself to be Chris Bittman, a senior attending the University of East Florida in the year 2004. There are approximately 75,000 students attending U.E.F. as it is one of only four colleges in the state. College (undergraduate and graduate) is not easy to get into these days nor is it easy to stay in once you have been accepted. A major reason for students failing to complete their coursework is the stringent testing procedures now in operation. All tests given at U.E.F. are the sole responsibility of the "Proctor Society" rather than the faculty. The faculty still make up and grade the exams (which are extremely difficult) but it is the Society's job to administer them. The Proctor Society is an organization with rigid codes and procedures. In brief, cheating and other violations are to be dealt with firmly by the Society. More often than not, cheaters are expelled from U.E.F.

You Chris Bittman, are a member of the prestigious Proctor Society in the position of "Proctor" (see chain of command). As a new member of the Society, your goal of attending law school has become more realistic. Today holds your first proctoring assignment.
PROCTOR SOCIETY CODES

Proctor motto - "sharp, alert, honest, committed, everywhere, nowhere"

The Society is made up of those who are deserving, loyal, and never wrong.

The Society operates with a formal hierarchy. You may only communicate one up or one down. Your immediate supervisor is always right.

Society members are never idle. There is always something to do and a correct way to do it.

Students are to be spread out during an exam unless it is impossible to do so. Students who know each other must not sit together. Students carrying anything into the testing center (unless instructed to do so) will be dismissed with prosecution pending. Students causing any kind of disturbance will be dismissed with prosecution pending.

"To err is human" was not written by a Society member. A false accusation of cheating carries serious consequences. A Proctor must be sure before reacting. If a student is acquitted at the hearing, the accusing Proctor will suffer.

Proctors will report all cases of cheating, disturbance, or other abnormalities.

Proctors will respond to questions prior to test starting times only. Talking is prohibited by students and/or Proctors once a test has begun. Anyone who talks during a test will be dismissed with prosecution pending.

Decisive and immediate actions are to be employed at all times. If an observance (e.g. cheating) is obvious or evidence is available, then the Proctor should take action.

Decisions are to be made on the basis of written Codes, Procedures, etc. of the Society.

Advice from superiors is to be highly regarded. Your own opinions may be given to any Society member.

Some events happen only once or are seen by others, therefore, hesitation may be costly.

Court hearings are fair. Students are innocent until proven guilty. All cases of cheating are to be documented by the accusing Proctor whose written statement will be used as evidence at the hearing. The accusing Proctor may, in specified instances, refuse to testify. In this case, credit will be awarded to the Proctor if a conviction is made. The Proctor will not be prosecuted if a conviction of the accused is not obtained.
SOCIETY PROCEDURES

A. Test Sign-Up
1) Proctors give Foreproctors a personal schedule.
2) Foreproctors pass this on to Proctor Voce.
3) Prime Proctor collects testing schedules from instructors.
4) Prime Proctor selects testing site for each exam.
5) Prime Proctor and Proctor Voce meet in order to make Proctor assignments.
6) Proctor Voce informs Foreproctors of Proctor assignments.
7) Foreproctors give Proctors their schedule of assignments.

B. Test Administration
1) Proctors check students I.D. at door of testing center.
2) Proctors dismiss any student in violation of Codes for entry into testing center.
3) Proctors seat students according to Code.
4) Proctors pass out test materials and give instructions.
5) Proctors answer questions if appropriate.
6) Proctor begins test.
7) Proctors circulate throughout testing center.
8) Proctors collect exams as students complete them and allow students to exit testing center.
9) Proctor calls time and remaining exams are collected.
10) Proctors write reports for any violations of the Code during the test and deliver these to Foreproctors for processing.

C. Dealing with Violators
1) Proctor confronts student with observation. If test has begun, student is motioned outside.
2) Unless there is a clear error on the part of the Proctor, student is dismissed from the testing center.
3) Following the test, Proctor Report is written (with recommendations if applicable) and delivered to Foreproctor.
4) Report is passed up Society's hierarchy to Prime Proctor where a decision for action is made (e.g., press charges, speak to student, etc.).

D. Court Hearing
1) If a case gets to court, the accusing Proctor will be required to testify against the accused. Proctor may bring in any relevant evidence at this time or simply rely on own word.
2) Board of Directors will hear the case and render judgement.
3) Accused student will be allowed to defend himself/herself in any way deemed appropriate by the B.O.D.
4) Any written statements previously submitted by the Proctor (or fellow Proctors) shall be utilized in the proceedings.
5) Any written advisory to the accusing Proctor from any member of the Society may be disclosed at the hearing if appropriate.
6) A Proctor, upon taking the witness stand, might make an announcement of resignation from the Society (see Special Items).
SOCIETY SPECIAL ITEMS

A. A Proctor will be dismissed from testing center by fellow Proctor if observed talking after test has begun.

B. A Proctor may recommend that a case be referred to University Overflow Board if the Society's B.O.D. has achieved its quota.

C. A Proctor may resign from the Society at any time. It is up to a majority vote by the B.O.D. to decide if the Proctor resigns "With Honor" or "With Dishonor". If a Proctor resigns "With Honor" then reinstatement is a fairly simple procedure should the Proctor wish to return. If he resigns "With Dishonor" then his/her record is permanently scarred.

D. Coercion or threats shall never be used against any student or faculty member at U.E.F.

E. A polygraph test is admissible evidence at Society hearings but the fallibility of such devices should be considered.

F. A Society member shall be discharged for one violation of the Society's Authority Doctrine.

G. A witness to any event is strong evidence. A Proctor may utilize witnesses (either students or fellow Proctors) at B.O.D. hearings.

H. Society members will be held accountable for any written and/or signed documents.

I. Proctors who have been with the Society for less than three months may enlist the aid of hidden cameras at testing centers. Although some people feel that hidden cameras are unethical, pictorial evidence is virtually foolproof.

J. Proctor Recommendations are advisable in some cases. In the Proctor's initial report, recommendations may be made that would avoid or postpone a B.O.D. hearing. After the hearing date has been set, the Proctor in certain instances, may call on the B.O.D. to decide a course of action.

K. Conviction and expulsion of accused cheaters is the goal of the Society. Having an accused student enter a plea of guilty avoids a great deal of bother for all concerned.

L. Proctors receive substantial credit and recognition for convictions of those they have accused. A failure to prove guilty often results in severe consequences for the accusing Proctor.
INITIAL SITUATION

You have been assigned to Test Center A. You are one of eight Proctors responsible for administering an algebra exam to 250 students. Assume that student check-in has been completed without complications and that test directions have been given. In other words, the test is about to begin. You have been reminded by Will Aceman that the multiple-choice format of this test combined with the absence of a show-your-work requirement, make for a higher degree of interstudent cheating than other types of tests. With this in mind, the test begins.

You have been moving around the room as you have been trained to do, for about 20 minutes. Everything is going smoothly until you make your fifth pass across the front of the room. As you stop for your one-minute pause, you observe a male student in the third row acting suspiciously. Testing Center A is large enough so that students are separated from each other by one empty seat. You can see that this male student is looking towards the paper of the student on his right then turning his head back to his own paper and writing on it. This procedure occurs twice when you realize that your front-of-the-room pass is almost over. You must make a decision! The student is obviously cheating, yet you know the penalty for false accusation! Should you

A. Take him out of the room, present your observation, and write a report of the incident or

B. Continue to observe the student to make sure he is cheating and then take action.

Circle your decision before proceeding
If you chose A turn to page 1
If you chose B turn to page 3
Assume that you wrote your report of the cheating incident three weeks ago and you have just learned that a hearing on the incident has been scheduled. Of course, you have been asked to testify against the accused student. You have not spoken with the student since April 1 but you have been called numerous times by the student's mother. The mother, with obvious emotional distress, has begged you not to testify against her son. Furthermore, you received a curious phone call from Moe Flowers who implied that it was your responsibility to ask the B.O.D. for assistance (see Society Special Items). Lin Boofy has advised you that it is your responsibility to testify. If you win the case, great! If there is no conviction, you take the responsibility. What do you do??!!

A. Call on the B.O.D. to analyze the situation or

B. Testify at the hearing.

Circle your decision before proceeding
If you chose A turn to page 2
If you chose B turn to page 5
Assume that the B.O.D. reviews the case and decides, by majority vote, to stand by Ann Choavy's decision to hold a hearing. You now have some serious thinking to do. If the accused student is convicted, he will be thrown out of school and will probably not be able to get into another university. In other words, his life will be ruined, you will receive credit and recognition. Curiously again, Moe Flowers has asked you not to testify. He suggests that you either refuse to testify or you can resign from the Society "With Honor" (see Society Codes and Special Items). Lin Boofy still says you should testify. Sam Casanova heard from Ann Choavy that something fishy is happening with the B.O.D. What is it going to be??!! You are going to

A. Testify at the hearing or

B. Resign from the Society or

C. Respectfully refuse to testify.

Circle your decision and the exercise is over.
You come around again to the front of the room. It is obvious to you that the student is cheating. You take him out of the room and inform him of your observations and your intent to report him. In your incident report, you outline your intentions. You decide to either

A. Press charges and testify against the student (see Society Procedures D) or

B. Recommend other means.

Circle your choice before proceeding.
If you chose A turn to page 6
If you chose B turn to page 4
In your incident report to be given to your Foreproctor, you mention three primary recommendations. First, you mention that it may be a good idea to have the B.O.D. respond to the incident report. Second, you present the possibility of a meeting between yourself and the accused student in order to get the student to confess or enter a guilty plea. Third, you suggest referring the case to the University's Overflow Board. Word has been passed down the hierarchy that Ann Choavy would like you to choose your top recommendation. Will Aceman says that "a confession is tough to get but well worth the effort".

The goal of U.E.F. is to expel 100 students in 2004. The Society has expelled 21 students this year while the Overflow Board has tossed 16. Ann Choavy is pressing you for a recommendation! You must decide quickly and do what is right!!

A. Try and get the student to admit guilt or
B. Refer the case to the Overflow Board or
C. Give the incident report to the B.O.D.

Circle your recommendation and the exercise is over.
You are at the hearing. You have given your account of the incident on April 1 at Testing Center A. However, the defense is doing an excellent job and your story (which is usually sufficient) is losing credibility. You have got to do something! There are two options. You could offer the court a witness (see Society Special Item G). The student whose paper was being copied has agreed to testify. Will Aceman reminds you that having a witness take the stand has been known to backfire. Your other option is the submittal of pictures taken during the test on April 1. Cameras at Test Center A caught the cheater in action. Although the pictures would virtually close the case, Lin Boofy is openly anti-pictures. You must make a move or you may lose the case!!

A. Bring in the witness or
B. Bring out the pictures.

Circle your line of defense and the exercise is over.
You are at the hearing. You have given your account of the incident on April 1 at Test Center A. However, the defense is doing an excellent job and your story (which is usually sufficient) is losing credibility. You have got to do something! You have two options. Lin Boofy has suggested you make an emotional speech directed at the B.O.D. as outlined in the Society's Words of Wisdom publication. Will Aceman mentions the possibility of using a polygraph. You must make a move and make it soon!!! Will you

A. Listen to Boofy and make that speech or
B. Listen to Aceman and request a polygraph.

Circle your line of defense and the exercise is over.
APPENDIX C

SUBJECT SOLICITATION

You are being asked to voluntarily participate in a research project conducted by Adam J. Gross as part of a Master's thesis. The study is an investigation into the relationship between personality and performance on decision-making tasks. If you decide to participate, you will be asked to complete a personality inventory and a written decision-making exercise. This will take approximately 25 minutes. Data from these forms will be used to select individuals to participate in the second phase of the experiment. Subjects selected to participate in the second phase will receive extra credit for both phases of the experiment. If you do decide to participate, please sign the consent form which is being passed out now.
APPENDIX D

SUBJECT CONSENT FORM

I, , agree to participate in a study of personality and performance currently being conducted by Adam J. Gross, Industrial/Organizational Psychology graduate student at the University of Central Florida, Orlando, Florida. I have been informed of the nature of this research and I understand that my responses will be held in the strictest confidence and will be used only as data collected for this study. I further consent to the use of such data in any publication of the results of the study, under the assurance that my participation will be both anonymous and confidential. I understand that I may terminate my participation in this study at any time without penalty or prejudice.

Signature

Date
APPENDIX E

SUBJECT DEBRIEFING

As part of the experiment which you just completed, you were informed that a second phase of the experiment existed and that had you been selected to participate for this phase, you would have received additional extra credit. We regret to inform you that no second phase exists and that this completes the experiment. The deception was necessary to insure that you would perform to your maximum ability. We regret any inconvenience the deception may have caused you. In addition, the last questionnaire you filled out was a measure of the role conflict and role ambiguity you perceived from the decision-making exercise you completed beforehand. This study was actually an investigation of the moderating effects of personality variables on the relationship of stress to performance. Thank you again for your time.
REFERENCES


