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A study on how the characteristics of the Five-Factor Model of Personality correlate with Type A personality characteristics was conducted. The main focus was on the Neuroticism and Conscientiousness domain scales and their specific facet scales (Neuroticism: anxiety, angry hostility, impulsiveness, and vulnerability and Conscientiousness: order, dutifulness, and achievement striving). The participants were 80 Introductory Psychology students ($\underline{n} = 17$ extreme Type A and $\underline{n} = 20$ extreme Type B) at a mid-sized Midwestern university. Participants were encouraged to sign up for studies to fulfill course requirements for psychology courses. The participants were given test packets consisting of a demographic questionnaire, the NEO Personality Inventory (NEO-PI-R), and the Jenkin's Activity Survey- Form C (JAS).

A multivariate <u>t</u>-test was performed to examine the differences in Neuroticism and Conscientiousness scores based on personality type. The multivariate <u>F</u> was significant. Univariate results showed no significance on the Neuroticism scale, but significance with the Conscientiousness scale. From the facet scales examined in this study, the Conscientiousness subscales (order, dutifulness, and achievement striving) were significantly higher for Type A than Type B individuals. Several of these traits—order, achievement striving, and dutifulness—are positive traits to have and perhaps it is just a matter of monitoring

them. From these results, Type A individuals should not be "criticized" for their ways but taught more effective ways of dealing with time and their constant need for control. In addition, the Jenkin's Activity Survey may be used as a measure in determining Type A personality characteristics. This instrument, once only used to assess and predict one's susceptibility to coronary heart disease, may also be used as a tool to group personality characteristics found within Type A individuals.

The Relationship Between the Five Factor Model of Personality and Type A/B Individuals

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CHAPTER 1

INTRODUCTION

Stress is a salient feature of contemporary life. Stress can be defined as factors which alter an existing equilibrium between body and mind and cause bodily or mental tension. Stress is a part of our work, schools, relationships, and homes. Often we think of stress as caused by external events. However, the events in themselves are not stressful. Rather, it is the way in which we interpret and react to these events that make them stressful. People differ dramatically in the type of events they interpret as stressful and the way in which they respond to and cope with stress.

Peoples personality traits have a great deal of influence on the way stress affects them. A variety of research states that certain individuals are more susceptible to stress-related health problems such as coronary heart disease, as well as increased rate of illness overall. Referred to as having Type A personalities, such individuals can be characterized as more aggressive, hostile and competitive. They often have an exaggerated sense of urgency and tend to be highly successful in their professions.

Personality characteristics such as aggressiveness, angry hostility and impulsiveness are all characteristics related to what psychologists describe as the Five Factor Model (FFM) of personality (Costa & Widiger, 1994). The FFM was developed to describe five main personality traits: Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness. Within each of these larger scales are factor subscales such as dutifulness and achievement striving. One's personality determines how an individual reacts and deals with daily activities and stress.

The purpose of this study is to examine the relationship between two of the domains, Neuroticism and Conscientiousness, of the FFM to see if there is an

elevation of scores for those individuals who score high on Type A traits. In addition to the two domain scales, several facet scales or subscales—anxiety, angry hostility, impulsiveness, order, achievement striving and dutifulness—will be examined to determine their relationship to Type A characteristics. A greater understanding of Type A's personality traits would increase the use preventative measures, such as an increase in relaxing activities or a pattern for staying on task, rather than feeling obligated and pressured to complete several tasks simultaneously. In addition, the Type A measurement, the Jenkins Activity Survey, may be incorporated as a personality indicator.

Review of Literature

In the worry and strain of modern life, arterial degeneration is not only very common but develops often at a relatively early age. For this, I believe that the high pressure at which men live and the habit of working the machine to its maximum capacity are responsible for rather than excesses in eating and drinking (Osler, 1892 p 21).

Type A Personality Characteristics

Stress is an inherent part of a fast paced society, affecting work, school, relationships, and homelife. Since the Industrial Revolution, the United States has been pushing full force to make the largest profits in the shortest amount of time. Every year, reports appear showing an increase in coronary heart disease.

Although people are now more concerned about their health, eating well or excercising regularly may not be enough to decrease coronary heart disease.

One approach to understanding stress is derived from the cognitive-behavioral emphasis of Lazarus (1976), who stated "stress occurs when there are demands on the person which tax or exceed his adjustment resources" (p. 120). Based on individuals' subjective appraisal of a situation, they may perceive a non-demanding situation as demanding or evaluate situations as being more

challenging and stressful than is really necessary (Stanley, King & Glass, 1989).

Thus, these individuals may actually create a personal environment that is not only physically taxing but psychologically strenuous as well.

Evidence has been accumulating in recent years that social and psychological factors are involved in an important way with the etiology of coronary heart disease. Among the more intensively studied theories is that of the "coronary-prone behavior pattern" or Type A behavior. The Type A behavior pattern is a particular set of overt behaviors and underlying psychological predispositions displayed by individuals who are at greater risk for the development of coronary heart disease. The term "Type A behavior" pattern was originally coined by Doctors Friedman and Rosenman, two practicing cardiologists in the San Fransisco Bay area in the mid 1950s. They noticed their private patients displayed a particular style of behavior that they believed was responsible for the patients' heart attacks (Powell & Thoreson, 1987). In their book Type A Behavior and Your Heart, Friedman and Rosenman (1974) describe the Type A behavior pattern as an "action emotion complex that can be observed in any person who is aggressively involved in a chronic incessant struggle to achieve more and more in less and less time, and if required to do so, against the opposing efforts of other things or other persons" (p. 127).

From these early reports of heart disease, various psychologists have borrowed the term to describe these observable behaviors and characteristics known as Type A behavior and have used them in personality assessments (Dunbar, 1943; Menniger & Menniger, 1963). The Type A behavior pattern is characterized by extremes of competitiveness, striving for achievement, aggressiveness, haste and impatience, restlessness, hyperalertness, explosiveness of speech, tenseness of facial musculature, and feelings of being under the pressure of time and the challenge of responsibility. Persons with this pattern are

usually deeply committed to their profession and often have achieved success (Jenkins, Zyzanski, Rosenman, & Leveland, 1971). Friedman and Rosenman (1974) believed the Type A pattern was not a personality trait (that is, a person's style regardless of the particular situation), but rather an evoked response to environmental demands. These demands appear to be more intense and numerous in the Type A personality compared to individuals with Type B characteristics.

Feelings of insecurity and pervasive self-doubt about personal worth are also often theorized to be a part of the Type A pattern (Powell &Thoreson, 1987). This insecurity seems to be linked to a fear of inadequacy and fear of the inability to gain others' respect and admiration, fears that perhaps go back to early childhood experiences. Striving for acceptance and rewards is often attempted to reduce these fears. If successful, the Type A behavior pattern is very reinforcing to the Type A individual (Friedman & Rosenman, 1974).

Despite the assertion by Friedman and Rosenman (1974) that the Type A behavior pattern is not a dispositional quality, the notion of the Type A behavior pattern as a fixed personality trait has become popularized (Powell & Thoreson, 1987). The consequence of a trait orientation to the Type A behavior pattern is that it can restrict the quality of conceptual and empirical work because individuals' thoughts, feelings and actions are explained by mere labels Type A or B (Swim, 1982; Thoreson & Ohman, in press). Although it may be beneficial to categorize and label individuals into Type A or B, perhaps researchers should be examing the individual differences and personality traits on a different level, that is, by examining the pieces that make up Type A or B rather than a collective whole.

Five Factor Model of Personality

Perhaps one way researchers can better classify Type A behavior pattern individuals is through the five factor model of personality (FFM). The FFM is a hierarchial model of the structure of personality traits that examines various levels of an individual's behavior. Personality traits are often defined as "enduring dimensions of individual differences in tendencies to show consistent patterns of thoughts, feelings and actions" (McCrae & Costa, 1990 p. 32). Traits are relatively enduring dispositions unlike states or moods, which are more transient. McDougall (1932) first theorized that personality can be "broadly analyzed into five distinguishable but separable factors" (p. 5). Thurstone (1934) reported similar findings from his studies supporting McDougall's original theory.

Over 50 years passed before theorists began using the FFM for research. There were several reasons research was impeded prior to this time. First, factor analysis computed without computers was extremely difficult and time consuming. Second, Thurstone did not replicate his findings and instead turned to other pursuits. Third, psychologists of that time viewed research as testing only one aspect of personality of a theory, such as Freud's theory of repression, instead of an entire model. In addition, many psychologists who have studied the "factor approach" such as Cattell (e.g., 1943, 1947, 1948, 1957, 1965), Eysenck (e.g., 1947, 1970) and Guilford (e.g., 1959, 1975) did not agree on the number of factors of personality.

Behaviorism popularized during the 1960's and 1970's, but the FFM still did not resurface. Behaviorists disdained unobservable constructs such as "personality" or trait ratings. Their belief in the primacy of reinforcement and environmental contengencies did not mesh with the internal, trait orientation of the FFM.

In the early 1980s interest in the structure of the language of personality descriptors and the analyses of personality inventories renewed. One such measure is the NEO personality inventory (NEO-PI), created by Costa and McCrae (1984) and subsequently was revised in 1992 as the NEO-PI-R. By the 1990s, considerable research had confirmed the FFM and the value of studying individual differences in personality (e.g., Digman, 1990; Wiggins & Pincus, 1989). These individual differences are described below in the various traits measured by NEO-PI-R using the FFM.

<u>Dimensions of the Five Factor Model</u>

Neuroticism. Neuroticism refers to a chronic level of emotional maladjustment and instability. High neuroticism identifies individuals who are prone to psychological distress. Individuals with high Neuroticism often have unrealistic ideas, excessive cravings or difficulty in tolerating the frustration caused by not acting on one's urges, and they tend to have maladaptive coping responses. The Neuroticism measure also includes facets or subscales for anxiety, angry hostility, depression, self-consciousness, impulsivity and vulnerability (Costa & Widiger, 1994).

Extraversion. Extraversion refers to the quantity and intensity of preferred interpersonal interactions, activity level, need for stimulation and capacity for joy. People who score high in extraversion tend to be sociable, active, talkative, person oriented, optimistic, fun loving, and affectionate whereas people who are low in extraversion tend to be reserved (but not necessarily unfriendly), sober, aloof, independent, and quiet. Introverts are not unhappy or pessimistic people, but they are not given to the exuberant high spirits that characterize extraverts. The Extraversion measure also includes facets or subscales for warmth, gregariousness, assertiveness, activity, excitment seeking and positive emotions (Costa & Widiger, 1994).

Openness to Experience. The Openness factor is less commonly known, as compared to the scales of Neuroticism and Extraversion and, in fact, is often construed differently as the alternative label "intellect" suggests. Openness differs from ability and intelligence and involves the active seeking and appreciation of experiences for their own sake. Open individuals are curious, imaginative, and willing to entertain novel ideas and unconventional values. They experience the entire spectrum of emotions more vividly than do closed individuals. By contrast, closed individuals tend to be conventional in their beliefs and attitudes, conservative in their tastes, and dogmatic and rigid in their beliefs. They tend to be behaviorally set in their ways and emotionally unresponsive. Fantasy, aesthetics, feelings, actions, ideas and values are facet scales found on the domain scale, Openness to Experience (Costa & Widiger, 1994).

Agreeableness. Agreeableness, like Extraversion, is an interpersonal dimension. This scale refers to the kind of interactions a person prefers, whether it be closer to compassion or antagonism. People who are high in agreeableness tend to be softhearted, good natured, trusting, helpful, forgiving and altruistic. Eager to help others, they tend to be responsive and empathic and believe that most others want to and will behave in the same manner. Those who are low in Agreeableness are called antagonistic, cynical, rude, abrasive, suspicious, uncooperative, irritable and manipulative, vengeful and ruthless. The Agreeableness facet scales include trust, straight-forwardness, altruism, compliance, modesty and tender-mindedness (Costa & Widiger, 1994).

Conscientiousness. Conscientiousness denotes the degree of organization, persistence, control and motivation in goal-directed behavior. People who are high in Conscientiousness tend to be organized, reliable, hardworking, self-directed, punctual, scrupulous, ambitious, and persevering whereas those low in Conscientiousness tend to be aimless, unreliable, lazy, careless, lax,

negligent, and hedonistic. Conscientiousness facet scales include competence, order, dutifulness, achievement striving, self-discipline and deliberation (Costa & Widiger, 1994).

Relationship of Type A and the Five Factor Model

At this time there has not been a great deal of research tying the Type A individual to the FFM. It may be of interest to study the overlapping similarities of Type A to those characteristics found within the FFM to determine if the measure of Type A really has utility value as a personality measure. Two of the scales. Neuroticism and Conscientiousness, have several facets which may be similar to the Type A characteristics. Neuroticism's facet scales include impulsiveness. anxiety, angry hostility and vulnerability. Type A individuals show a need to control their lives and, when challenged, are prone to worry and become nervous, tense and jittery. The angry hostility facet scale represents an individual's tendency to experience anger and related states such as frustration, bitterness, and impatience. Impulsiveness refers to the inability to control cravings and urges, and vulnerability refers to an individual's stress level (Costa & Widiger, 1994). Individuals falling into this category are not able to cope with stress effectively and become dependent, hopeless or panicked when faced with various situations. Conscientiousness facets that appear to relate to the Type A individual include order, achievement striving and dutifulness. Type A individuals are often well organized and have high aspiration levels. They work hard to achieve their goals and become successful. They are often diligent and purposeful and have a sense of direction in life, at times investing too much into their careers and becoming workaholics. The dutifulness facet examines these individuals' values and how they are "governed by conscience" (Costa & Widiger, 1994 p 47). Individuals who score high on dutifulness often adhere strictly to their ethical principles and scrupulously fulfill their moral obligations. This relates to how these individuals interpret and perceive the

needs of individuals around them, whether a supervisor's deadline or a spouse's request.

Other research has found the anger and neuroticism elements of the FFM to be related to coronary heart disease (Diamond, 1982; Jenkins, 1976) and Type A behavior (Dimsdale, Hackett, Block, & Hunter, 1978; Smith, Houston, & Zurawksi, 1983). Other personality inventories, such as the Eysenck Personality Inventory, have been moderately correlated with anger and neuroticism (Smith et al.). In addition, other studies have found the Type A individual to show neurotic traits (e.g., Irvin, Lyle, & Allon, 1982). However, a few studies contradict these conclusions and have found measures of coronary heart disease to be unrelated to personality characteristics of anxiety or neuroticism (e.g., Smith et al.). This conflict in research findings may be due to the different populations studied (clinical vs. non-clinical).

Summary

Stress is an inherent part of our daily life. The effects of stress can be both positive, such as motivating people to get ahead, or negative, such as causing coronary heart disease. After studying individuals with coronary heart disease, Friedman and Rosenman (1974) discovered a set of behaviors which today is termed Type A behavior. Psychologists have since adopted the term and use these observable characteristics to define the Type A individual. Several of the Type A characteristics seem to coincide with the FFM. The FFM measured the domains of Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiouness. This study focused primarily on Neuroticism and Conscientiousness and their relationship with the Type A and Type B individual. Hypothesis 1 was that Type A individuals

would score high on these two dimensions of the FFM. Hypothesis 2 was that the Jenkin's Activity Survey will have utility value as a personality measure.

Under the domain scale of Neuroticism, there are several subscales including impulsiveness, anxiety, angry hostility, and vulnerability. Hypothesis 3 was that these scales will be elevated due to the need for control by Type A individuals, since such individuals show tendencies to worry (anxiety), and show a tendency to experience anger and impatience (angry hostility), an inability to control urges (impulsiveness), and unrealistic environmental stress levels (vulnerability).

The Conscientiousness subscales that appear to relate to the Type A individual include order, achievement striving, and dutifulness. Hypothesis 4 was that these subscales should be elevated due to these individuals need for organization (order), goal orientaion (achievement striving), and their tendency to adhere to strict ethical principles and moral obligations (dutifulness).

CHAPTER 2

METHOD

Participants

The sample consisted of 80 introductory psychology students who had signed up for course credit at a mid-sized Midwestern university. Based on their Type A/B personality traits, the participants were categorized into two groups: extreme Type A (n=17) and extreme Type B (n=20). The remainder were omitted from analyses. From these two groups, 12 men and 5 women were categorized as extreme Type A individuals and 7 men and 13 women were categorized as extreme Type B individuals. Twelve traditional students and 5 nontraditional students were categorized as extreme Type A individuals, 18 traditional and 2 nontraditional students were found to be extreme Type B individuals. One African American was categorized as a Type A individual, as well as 15 Caucasians and 1 Hispanic. Eighteen Caucasians and 2 Hispanics vielded extreme Type B scores. Design

The design used in this non-experimental study was casual comparative research. This was used so that the examiner could explore the relationship of the NEO Personality Inventory traits Neuroticism and Conscientiousness (dependent variables) and Type A/B behavior patterns. With casual comparative research the independent variable (Type A/B) is not manipulated because the groups have already been assigned. This type of research method does not prove cause and effect, it only explores the relationships of the NEO personality and the Type A/B individual. Because the examiner is primarily interested in Type A/B, after completing the test packets, the researcher placed individuals into two extreme groups, Type A(+) and Type B (+). After the groups were assigned to a Type A/B group, the examiner used multivariate T-tests to examine the two groups to see how well the scales Neuroticism and Conscientiousness describe and differentiate

with the Type A/B characteristic traits. That is, do Type A individuals score higher on Neuroticism and Concientiousness than Type B individuals? In addition, the examiner provided a table with the means and standard deviations for the Type A and B individuals for all of the Five Factor domains examined.

Materials

Demographic Questionnaire. A demographic questionnaire, see Appendix A, was developed by the experimenter to gather information such as gender, age, race, and whether or not the student was a traditional or nontraditional student.

Only the first four questions were used from the demographic questionnaire.

Consent Form. A consent form was developed by the experimenter to explain the study and the confidentialty within the study. Particiants were required to sign the consent form before participating in the study. The consent form was approved by the Human Subjects Institutional Review Board. The consent form has been provided in Appendix B.

Jenkins Activity Survey-Form C (JAS). The JAS-Form C was used to determine whether a participant fell into the personality category of a Type A or Type B individual. The JAS-Form C is a modified version of the original JAS which was created to determine if an individual was more likely to be prone to coronary heart disorders (Jenkins, Zyzanski, & Rosenman, 1979). The modification of the original test involved deleting items on job involvement and changing them into questions about schoolwork, thus accommodating a college population (Krantz, Glass & Snyder, 1974). The JAS-Form C is a standardized, objective, 21-item, multiple choice self-report measure of coronary prone behavior. The researcher examined only the extreme Type A (+) and Type B (+) scores. The scores of the JAS may range from 0-21 and, according to Friedman and Rosenman (1974), Type A and B behavior may be broken down as follows:

- 0-4 B+ highest B rating
- 5-7 B- lowest B rating
- 8 mean score, no personality type is indicated
- 9-11 A- lowest A rating
- 12-21 A+ highest A rating

Revised NEO Personality Inventory (NEO-PI-R). The NEO-PI-R provides a comprehensive assessment of an individual's emotional, interpersonal, experiential, attitudinal and motivational styles. It is the most recent version of Paul Costa and Robert McCrae's (1994) instrument developed to assess normal adult personality using the Five Factor Model (FFM). This is one of the few available comprehensive tests based on this model of personality. The NEO-PI-R assesses the five major domains of the FFM of personality, with each domain represented by several (5-7) lower level subscales or facet scale scores. There are three formats available; self-report, observer reports and the NEO-PI-R, which is a shorter self-report form of the instrument. The present researcher used the NEO-PI-R because it is easier to use and score. Each item on the NEO-PI-R is associated with one of the five major domains and if answered accordinging will add one point to the total number of items in that particular domain. The selected item numbers are combined to yield a total raw score. Within each of the five domains are subscales, various item numbers are combined to represent these facet scale scores.

For the domain levels, the test-retest reliability ranges from .86 to .95 for both the self and observer ratings. Facet or subscale level reliabilities range from .56 to .90 for both the self-report and observer forms of the NEO-PI-R. Further work still needs to be done to demonstrate the validity of the new facet scales for the Agreeableness and Conscientiousness domains (Botwin, 1995). Acceptable long-term test-retest reliability has been shown for the Neuroticism, Extraversion,

and Openness to Experience domains of the previous version of this instrument. It is also important to note college based samples score higher on the dimensions of Neuroticism, Extraversion, and Openness to Experience and lower on the dimensions of Agreeableness and Conscientiousness than other populations (Botwin, 1995).

The validity of the NEO-PI-R scales has been demonstrated in a variety of ways. There is a strong consensual validity between self, peer, and spouse reports on the test. Construct and convergent validity evidence of the scales has been collected through a series of studies conducted by Costa, McCrae and their colleagues (Costa & Widiger, 1994). NEO-PI-R scales correlate with analogous scales from other instruments.

NEO-PI-R scoring procedures assess a variety of response biases including random responding, acquiescence, and nay-saying. There is also a three item validity check included to detect honesty and accuracy in the completion of the questionnaire.

Procedure

In many psychology courses, instructors encourage and give credit to students who participate in research studies conducted at the university. Questionnaire packets were individually stapled together with their own confidential identification numbers on each instrument contained in the packet. The questionnaire packets contained the Demographic Questionnaire on top, the JAS, and the NEO-PI-R. Data were collected in small groups of students who arrived at a designated session. The participants signed the consent forms. The researcher then distributed the questionnaire packets. The experimenter repeated this procedure until all participants completed the entire packet. See instructions given in Appendix C.

After the data from 80 students were collected, the questionnaires were scored according to standard procedures. The JAS was used to categorize participants into two categories: Type A and Type B. Only those scoring in extreme ranges were used. Those scoring greater than or equal to 12 on the JAS were categorized as Type A. Those scoring less than or equal to 4 on the JAS were categorized as Type B.

CHAPTER 3

RESULTS

Participants classified as high Type A or high Type B personalities were selected for analysis. This yielded 17 individuals in the Type A category and 20 individuals in the Type B category. This classification was used as the independent variable with scores on the NEO-PI-R as dependent variables. Only those scales hypothesized to have a relationship with Type A behavior were examined. Specifically, Neuroticism and Conscientiousness and selected facet scores from Neuroticism (anxiety, angry hostility, impulsiveness, and vulnerability) and selected facet scores from Conscientiousness (order, dutifulness, and achievement) were analyzed. Comparisons were made between groups using multivariable <u>t</u>-tests with an alpha level of .05.

An initial multivariate \underline{t} -test was performed examining differences in Neuroticism and Conscientiousness scores based on personallity type. The Wilkes lambda yielded a significant \underline{F} (\underline{F} = 13.58, \underline{p} < .001). Univariate results indicated no effect for personality type Neuroticism, but a significant effect emerged for Conscientiousness. Table 1 reports means and standard deviations for these comparisons. Those categorized as Type A personality scored higher on overall Conscientiousness. Thus, Type A individuals were more conscientious than Type B indviduals.

Next, the facet scales specific to this study's hypotheses were examined. Again, Wikes \underline{F} was significant, indicating that examining the univariate results would be warranted ($\underline{F} = 8.94$, $\underline{p} < .001$). Univariate statistics revealed significant effects for personality on order, dutifulness, and achievement striving, but none of the Neuroticism facet scales reached significance. Table 2 displays the means, standard deviations, and \underline{F} ratios for each facet scale examined. Individuals

Table 1

Neuroticism and Conscientiousness Total Mean Scores of the NEO-PI-R for Type

A (n = 17) and Type B (n = 20) individuals

Neuroticism	Mean_	<u>SD</u>	F (1,35)
Туре А	83.59	20.79	1.46
Туре В	91.55	19.55	
Conscientiousness			
Туре А	123.35	15.44	27.11*
Туре В	95.15	17.20	
			_

Note: SD=standard deviation

^{*} p<.001

Table 2

<u>Univarate Statistics for Neuroticism and Conscientiousness Facet Scales of the NEO-PI-R by personality type</u>

Neuroticism			
	Type A Mean	Type B Mean	F (1,35)
Anxiety	14.24 (3.73)	15.65 (4.30)	1.12
Angry Hostility	13.53 (4.91)	14.60 (6.19)	.33
Impulsiveness	17.24 (14.06)	17.00 (4.05)	.03
Vulnerability	9.71 (4.37)	11.25 (3.54)	2.47
	Cons	cientiousness	
Order	19.35 (4.14)	14.65 (3.91)	12.60
Dutifulness	21.59 (3.57)	17.75 (4.73)	7.52
Achievement Striving	21.29 (2.73)	14.65 (3.91)	45.80

considered Type A personalities obtained significantly higher scores on order, dutifulness, and achievement striving.

CHAPTER 4

DISCUSSION

The purpose of this study was to determine whether Type A and Type B characteristics differed on the Five Factor Model (FFM) of personality. The study focused primarily on two domain scales, Neuroticism and Conscientiouness, and their relationship with Type A characteristics. It was hypothesized that Type A individuals would score higher on certain subscales found within the domain scale Neuroticism and Conscientiousness. This hypothesis did yield significant results, thus hypothesis three and four were investigated further. It was also predicted that the Jenkins Activity Survey may have utility value as a personality measure as well as being a measure for coronary heart prone individuals.

The data from the present study revealed a significant difference for Conscientiousness between scores and extreme Type A and B participants.

Although a few studies have found correlations between Neuroticism and Type A behavior (Diamond, 1982; Jenkins, 1976), there was no significance found in this data set.

Research conducted with college populations and the NEO-PI-R have found students to score higher on Neuroticism scores than the average population (Botwin, 1995). The college population used in this study did not score higher on the Neuroticism scale.

Selected Neuroticism and Conscientiousness facet scale scores were examined both collectively and individually. Those subscales examined in this study included impulsiveness, anxiety, angry hostility, and vulnerability from the Neuroticism domain and order, achievement striving, and dutifulness from the Conscientiousness domain. The results from the examined Neuroticism facet scales (anxiety, angry hostility, impulsiveness and vulnerability) were somewhat

surprising. Even though past research has found both anger and hostility to be correlated significantly with Type A ratings, none of the selected Neuroticism facet scales yielded significant results, thus hypothesis 3 was not supported. Perhaps the Type A individual should not be considered "neurotic," as previous research has indicated. The traits the Neuroticism scale measures may be socially acceptable and more functional than once thought. Several of these traits, like anxiety and angry hostility, may at a more moderate level be motivating for these individuals and thus lead them to successful lives.

Perhaps the most meaningful finding of this study is hypothesis 4. This hypothesis examined the Conscientousness facet scales (order, achievement striving and dutifulness). The facet scale scores were significant. Type A individuals do tend to possess these characteristics to a greater degree than Type B individuals. This provides empirical support for the observations that Type A individuals are well organized (order), have high aspiration levels (achievement striving), and strong values (dutifulness) (Friedman & Rosenman, 1974).

There are a variety of variables that may have confounded or limited this study that researchers may want to consider. One concern may be a college sample. A more representative sample would include a variety of ages, economic status, and location, thus strengthening the study and making it more generalizable. A more inclusive sample may be more representative of all Type A individuals.

In addition, perhaps there is a better instrument that could measure Type A behaviors along a continuum and address the typical problems of a one point separation between personality styles. This study only examined the extreme Type A and Type B personalities. While this accentuates the differences found between Type A and Type B individuals, it may limit the representativeness of this sample compared to the actual population of Type A and B individuals.

This study did provide information about using a coronary heart measurement (Jenkins) as a personality indicator. Through this study, significance was found with the Conscientiousness scale, thus leading one to believe the Jenkins can be used as a measure of Type A personality characteristics (Hypothesis 2). It is believed that perhaps order, dutifulness and achievement found with the extreme Type A individuals are the same constructs measured on the Jenkins Activity Survey.

One conclusion that could be drawn from this study is that Type A individuals should not be "criticized" for their ways, but taught more effective ways of dealing with time and the constant need for control in their lives. The Conscientiousness scales found to be significant—order, dutifulness and achievement striving—are not negative traits and, in many workplaces, homes and schools, are highly regarded. Perhaps psychologists need to work on increasing such traits for Type B individuals and moderating traits for the Type A individuals.

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APPENDIX A

Demographic Questionnaire

Demographic Information

Please circle the correct answer as it pertain	ins to	You.
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1. Male Female
2. Traditional Non-Traditonal (over age 25)
3. Race:
African American
Asian
Caucasian
Hispanic
Other
4. What is your marital status? Single Married Seperated Divorced Widowed
5. What is your religious preference?
Protestant Catholic Atheist Other
6. What is the highest occupation held by either of your parents?
1. Professional (physician, lawyer, CPA, Executive)
2. Minor Professional (beginning lawyer or physician, small business owner)
3. Semi-professional (salesperson, cashier, etc.)
4. Skilled worker (bookkeeper, railroad engineer, police officer)

5. Medium skilled worker (telephone operator, carpenter, plumber)

- 6. Semi-skilled worker (taxi or truck driver, waitress)
- 7. Unskilled worker (laborer, custodian, etc.)
- 7. What is the highest level of education you've received?

Non High School Graduate

High School Graduate

High School Graduate with some college

College Graduate

- 8. What type of neighborhood did you live in growing up?
 - 1. Very High (the best houses, mansions)
 - 2. High (superior and well above average, slightly less than #1)
 - 3. Above Average (well cared for, nice, but not pretentious)
 - 4. Average (area of working men's homes, small, neat)
 - 5. Below Average (undesirable area, close to factories, run-down)
 - 6. Low (area includes run-down houses and semi-slums)
 - 7. Very low (slum district, area has poor reputation)
- 9. What is the highest level of eduation you intend to receive?

some college

some Graduate school with a Masters

graduate with a Bachelors

Doctoral

10. How much pressure do you place upon yourself to do well in college?

None Some Very Much
1 2 3 4 5 6 7 8 9 10

11. How much pressure do/did your friends and family place upon you to do well in college?

None Some Very Much
1 2 3 4 5 6 7 8 9 10

12. Of your answers to questions #11 and #12, which one produces the most pressure for you?

Self Family Friends

APPENDIX B
Consent Form

Informed Consent Form

This study is to assess the attitudes/personality traits of students in a Midwestern University. Strict confidentiality will be used throughout the study. Names will not be used in any description or discussion of this study or the results found. Only the experimenter will have access to the initial data collected.

This study is not a mandatory part of your curriculum. If you agree to participate you will be asked to fill out several questionnaires. If at anytime you choose to discontinue this study you may do so. If you do not agree to participate in this study no negative recourse will be taken by either the experimenter or the instructor of this course.

This study will be reviewed and approved by the Human Subjects Institutional Review Board. It will not contain any harmful events to the subjects either physically or emotionally. If you agree to participate in this study, please sign this form.

I understand that confidentiality will be used in this study, that the Institutional Review Board has approved this study and I agree to participate.

Signature of Participant
If you would like follow up information regarding the results of this study, please
eave your address below.

My GTA for Introductory Psychology is:_

APPENDIX C Introduction Script

Introduction Script

Hello, my name is Jennifer Bowman and I am currently a graduate student in clinical psychology here at Emporia State University. I am here today to request your participation in an excercise I am using as part of my thesis. This excercise will require you to fill out three questionnaires, there is no threat to you physically or emotionally in this study. I will begin by distributing a consent form for your participation. I would ask you to read it carefully and sign it if you agree to participate. I would also like you to understand that if you feel uncomfortable at anytime during the experiment you may discontinue testing and leave the experiment. After you have completed the questionnaire packets, you may turn them into me, and then you are free to leave.

Permission to Copy Page

I, <u>Jennifer Bowman</u>, hereby submit this thesis to Emporia State University as partial fulfillment of the requirements for an advance degree. I agree that the Library of the University may make it available for use in accoradance with its regulations governing materials of this type. I further agree that quoting, photocopying, or other reproduction of this document is allowed for private study, scholarship (including teaching) and research purposes of a nonprofit nature. No copying which involves potential financial gain will be allowed without permission of the author.

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