PERSONALITY DISORDERS AS MALADAPTIVE VARIANTS OF GENERAL PERSONALITY TRAITS: A SUBCLINICAL APPROACH

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The American Psychiatric Association diagnostic manual (DSM-IV-TR) includes a number of personality disorders (PDs; e.g., dependent, borderline, schizotypal). Research has suggested there are specific relationships between PDs and general personality traits. This study sought to determine the pattern and magnitude of these relationships in a subclinical sample. 133 undergraduate students completed the OMNI, PDQ-4+ and NEO PI-R. Many of the hypothesized relationships between PDs and general personality traits were found to be moderately significant. Additionally, many of the sets of hypothesized variables were found to be predictive of the PDs. Also, in many cases, unhypothesized variables predicted a significant amount of the variance of each of the PDs. Implications of these results for the classification and understanding of PDs are discussed.

Accepted by: David R Shean, Chair

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CHAPTER 1

INTRODUCTION

Research on personality disorders has become one of the primary areas of study for psychologists interested in psychopathology. Currently, according to the current mental disorder classification system (DSM-IV-TR), personality disorders are "an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment" (APA, 2000). Ten personality disorders have been identified and categorized into three clusters based on primary features of the distress. Cluster A (Paranoid, Schizoid and Schizotypal) is characterized by odd or eccentric behavior, Cluster B (Antisocial, Borderline, Histrionic and Narcissistic) is characterized by erratic or dramatic behavior and Cluster C (Avoidant, Obsessive-Compulsive and Dependent) is characterized by fearful or anxious behavior. In addition to these disorders, the DSM-IV-TR includes the diagnostic categories of Depressive Personality Disorder and Passive Aggressive Personality Disorder in the appendix as topics for further research.

History of Personality Disorders

Research in the late 1950s criticized the diagnosis of personality disorders as being hampered with problematic theories and the absence of explicit diagnostic criteria and behavioral descriptions (Stengel, 1959). Prior to DSM-III (APA, 1980), virtually all mental disorders showed low reliability and validity due, in part, to the

inconsistent interviewing practices being used. This research, and that which followed, precipitated the development of stronger, more explicit diagnostic criteria. In addition to this, the reliability of diagnosing the presence (vs. absence) of a disorder increased. However, individual diagnoses were still somewhat unreliable (κ = .01 for Schizoid personality disorder to κ = .49 for Antisocial personality disorder). Another product of this research was the placement of personality disorders on a separate Axis. This occurred to ensure that clinician's did not overlook personality disorder diagnosis, in that they were not mutually exclusive entities that could not co-occur with mood and anxiety disorders. This placement, considered "special attention" by some (Blashfield & McElroy, 1987), caused the number of diagnoses of personality disorders to increase dramatically and ushered in a tremendous amount of research geared toward personality disorders. However, further research on personality disorders has actually created more questions than definitive answers, especially concerning the current diagnostic classification system. Such questions involve such basic issues as the definition of personality disorder, the amount of diagnostic overlap among personality disorders, and the difficulty in treating these disorders.

The Categorical Approach

In general, current conceptions of personality disorders are based on a categorical model. A categorical approach emphasizes distinctions and arbitrary cutoff points which allow the assignment of individuals into various categories. The categorical model of mental illness implies that there are clear boundaries between

normal and abnormal, mental and physical, and boundaries within the clusters of disorders (Widiger, 1997). Such an approach is advantageous to clinicians because categories tend to simplify groups, allowing stereotypic cases to form among the similarities of those in a group. This is often useful in communicating diagnoses for the purposes of determining medication, hospitalization and insurance coverage. Unfortunately, it is rare that mental disorders are that clear cut. It seems, in fact, that these categories are likely stretched into continua. For example, there are no qualitative distinctions from abnormal and normal functioning, instead there seems to be a range of functioning. Critics argue that the distinction between the presence and absence of personality disorders is ambiguous and there is little differentiation between the various personality disorders. Livesley, Jackson & Schroeder (1992) evaluated the categorical model by using a clinical sample and a community sample to determine the structure within the symptoms of personality disorders. Factor analysis yielded similar structures for both the clinical and general populations. The factors that did emerge seemed to have little direct similarity to the diagnostic categories of the DSM. If the categorical approach were accurate, this distribution of symptoms should have been bimodal. There was no such distribution. In fact, there was a considerable amount of overlap on the distribution of symptoms throughout the population. This seems to suggest that a dimensional model would be a more accurate description of the symptoms of personality disorders.

There is a great deal of diagnostic comorbidity and overlap among personality disorders, even though a categorical model implies that only one personality disorder

diagnosis would be applied to each individual patient (Bornstein, 1998; Gunderson, 1992; Gunderson, Links & Reich, 1991; Lilienfeld, Waldman & Israel, 1994; Widiger & Trull, 1998; Yeung, Lyons, Waternauz, Faraone & Tsuang, 1993). Most patients are not diagnosed with only one personality disorder. In fact, some research has suggested that two-thirds of patients who receive a diagnosis of a personality disorder will meet criteria for two or more personality disorders (Clarkin, Widiger, Frances, Hurt & Gilmore, 1983; Skodol, Rosnick, Kellman, Oldham & Hyler; 1991). Diagnostic overlap became a salient diagnostic issue when clinicians no longer had to decide on primary diagnoses and could cite multiple diagnoses (Marshall & Serin, 1997). Because several disorders may share some common features, it is possible for an individual to obtain more than one personality disorder diagnosis. Such comorbidity often leads to blurry distinctions between Axis II personality traits and Axis I clinical syndromes (Dolan-Sewell, Krueger & Shea, 2001). Though this has been beneficial to clinicians, it inevitably leads to vague boundaries between the various personality disorders, causing questions to arise as to the validity of the personality disorder categories in that it is difficult to imagine that the individual disorders are "distinct clinical entities" (Mineka, Watson & Clark, 1998, p.380). This is particularly true when research on personality disorders is being conducted, as it can become difficult to separate the symptoms and behavioral effects of separate disorders in individuals with multiple diagnoses. Research has shown that there are problematic co-occurrence rates for nearly all personality disorder diagnoses (Widiger & Trull, 1997). Cloninger (1987) suggests that this categorical approach to

describing personality disorders is limited practically and conceptually. These limitations are due (among other things) to features of personality disorders being common to more than one personality disorder and arbitrary distinctions between maladaptive personality traits and personality disorders.

In addition to the above stated problem, further difficulties are encountered because the particular categorical model used by DSM became polythetic in 1987 (APA). Polythetic categories in diagnostic classification are those in which no criterion is necessary or sufficient for a diagnosis of a disorder. In the DSM, there are between seven and nine diagnostic criteria for each personality disorder diagnosis and an individual may present with any five of those criteria to be diagnosed with a disorder. This results in considerable heterogeneity within each disorder with certain features of the disorder being implied in individuals who do not possess that trait (Widiger, 2001). This can be extremely problematic because individuals diagnosed with the same disorder may look very different from one another. An additional problem with polythetic criteria involves the use of cutting scores. Cutting scores refer to the number of criteria required in order to reach the diagnostic threshold for diagnosis. Research suggests that the cutting scores used in diagnosing personality disorders (e.g., five of nine criteria must be met for narcissistic personality disorder to be diagnosed) are arbitrary (Widiger & Corbitt, 1994). The use of cutting scores would suggest that there would be a distinct difference in an individual who meets criteria for a disorder with five symptoms and an individual who does not meet criteria with only four symptoms. However, the opposite of this often appears to be

true. Often, those individuals with one fewer criteria do not look substantially different from those individuals who meet criteria for the disorder (Livesley, 2001a). The use of a categorical model is also problematic because, when confronted with a case that is not prototypical, valuable information can be lost (Miller, Lynam, Widiger & Leukefeld, 2001). This occurs because individuals may possess important traits that, while not inherent to a particular category, may affect the manner in which a disorder is manifested.

The Dimensional Approach

Because of the problems and disadvantages inherent in the categorical model, investigators have considered alternative perspectives for the diagnosis and understanding of personality disorders. One alternative conceptualization gaining currency is the dimensional model. These models may be based on particular theories of personality disorder (e.g., Millon), clinician's descriptions of disorders (e.g., Clark), or may be related to models of general personality (e.g., Cloninger). At a basic level, a dimensional framework for personality disorders would place the disorders at the extreme ends of a continuum. Such a model would retain potentially valuable information about an individual. This would be useful in diagnoses as clinicians could describe clients in broad terms rather than behaviorally-specific criteria. Additionally, this framework would also provide more precise descriptions of the individual.

One model for personality disorders uses clinicians' conceptualizations of personality disorders (Clark, Watson & Reynolds, 1995). The criteria for personality

disorders (APA, 2000) were examined for placement into meaningful clusters that reflected underlying trait dimensions. These symptom clusters were then formed to compare disordered individuals to their normal peers. This proposal yielded 22 symptom cluster dimensions that are able to reliably describe personality disorders (Clark, McEwen, Collard & Hickok, 1993). The disadvantage to such a model lies in the use of clinician views of personality disorder criteria. Though this type of model would be extremely useful as it capitalizes on the way clinicians think, it could also be erroneous to assume that the clinician's concept of personality disorders are equivalent to the organization of personality (Livesley, 2001b).

There are many different models that attempt to identify fundamental dimensions that underlie normal and abnormal personality functioning. To have a fully comprehensive model of personality, one must consider general personality traits (Livesley, 2001a). One suggested alternative model is the conceptualization of personality disorders as being maladaptive variants of general personality traits (Widiger, Trull, Clarkin, Sanderson & Costa, 1994). The predominant trait model of general personality functioning is the Five Factor Model (FFM). Tupes & Christal (1961) first discovered five basic personality factors in eight samples. This was later replicated by Norman (1963) but did not become an important issue until researchers from various traditions began to find these same basic dimensions in numerous samples employing diverse methodologies. Although there have been various disputes about the appropriate labels and interpretations of the factors, the FFM has become one of the most widely used models to describe personality functioning.

Indeed, numerous studies have indicated that these five factors are robust and provide reliable predictions of behavior (Digman, 1990).

The FFM (Digman, 1990; Goldberg, 1993; John, 1990; Wiggins & Pincus, 1992) consists of five broad domains of personality functioning identified as neuroticism (negative affectivity) vs. emotional stability, introversion vs. extraversion (surgency or positive affectivity), openness vs. closedness to experience (intellect or unconventionality), antagonism vs. agreeableness and conscientiousness (or constraint) vs. undependability. Each of these five broad domains has been differentiated into six more specific facets, Costa & McCrae (1995) proposed that there are six facets within each domain. For example, they suggest that the domain of extraversion (vs. introversion) can be differentiated into the more specific facets of warmth, gregariousness, assertiveness, activity, excitement-seeking, and positive emotionality.

There is a great deal of empirical support for the construct validity of the facet and domain levels of the FFM. This has been shown with convergent and discriminant validation in self-report, peer ratings and spouse ratings (McCrae, Stone, Fagan & Costa, 1998), generalizability across age, gender and culture (Digman, 1990; McCrae & Costa, 1990; Yang, McCrae & Costa, 1998), and stability of the traits (Costa & McCrae, 1992). The FFM does not claim to be the definitive statement on the organization of personality (McCrae & John, 1992) and is not without its critics (Block, 1995; Westen, 1995). However, there does seem to be enough empirical

support for the FFM to consider it as an alternative model for use in diagnosing personality disorders (Widiger, et al., 1994/2002).

Statement of the problem

When researchers began conceptualizing personality disorders, research with nonclinical populations was rarely considered. Instead, researchers seemed to favor a medical model; that there is some sort of biological defect in an individual with a personality disorder. In reality, it seems that this model has little applicable value to personality disorders. Livesley (2001a) suggests that such traditional models have come to their limit in the ability to understand personality disorders. They show little empirical support, load on different factors than the actual disorder diagnoses and have less clinical utility than was once supposed. It has been proposed that each of the personality disorders can be understood as extreme variants of these personality traits that are evident in all persons (Widiger, et al., 1994). For example, avoidant personality disorder may represent maladaptive neuroticism and introversion while antisocial personality disorder may represent extreme antagonism and undependability.

There has been a great deal of research to suggest that the dimensions and facets of the FFM can be related to symptoms of personality disorders. This was first conceptualized when MMPI-PD scales (Morey, Waugh & Blashfield, 1985) were compared to Strack's personality adjective checklist (PACL; 1990) and found that a five factor structure could "capture and clarify the entire range of personality disorders" (Wiggins & Pincus, 1989, p. 305) with neuroticism being clearly

represented in borderline personality disorder; avoidant loading on extraversion (negatively) and neuroticism; histrionic anchoring extraversion, schizoid relating to introversion; schizotypal associating with openness (or unconventionality); dependent and antisocial relating to agreeableness, narcissistic and paranoid personality disorders at antagonism; and conscientiousness describing compulsive (positively), antisocial (negatively) and passive-aggressive (negatively) personality disorders. Many other studies provide support for understanding personality disorders from the FFM perspective (Ball, 2001; Costa & McCrae, 1994; Coolidge, Becker, Derito, Durham, Kinlaw & Philbrick, 1994; Blais, 1997; Trull, 1992; O'Connor & Dyce, 1998; Trull, Useda, Doan, Vieth, Burr, Hanks & Conforti, 1998). In a community sample, Miller et al. (2001) found that psychopathy can be understood as an extreme variant of general personality functioning. This study also speculated that using an FFM profile could be more complete and comprehensive than the use of the Psychopathy Checklist (PCL-R, Hare, 1998). This suggests that using this model would give more precise descriptions, more flexibility in diagnosis and an explanation for comorbidity.

McCrae Yang, Costa, Xiaoyang, Yao, Cai, & Gao (2001) performed statistical analysis on profile agreement to determine if a prototypical personality profile for individual personality disorders could be generated from general personality trait scores. Using the NEO PI-R, profile agreement from self-report and spouse's ratings were significantly related to personality disorder symptom scores, suggesting that clinical hypotheses could be generated using a general trait personality profile.

Additionally, diagnostic classification was only moderately correlated to symptom scores indicating that such categories may not fully explain personality disorder symptomatology.

In a mixed sample of outpatients and university students, Trull et al. (2001) indicated that the FFM is very relevant to personality disorders and that FFM batteries would be helpful in evaluations. This research also suggested that assessment at the facet level would further distinguish and characterize personality disorders and help explain the co-occurrence of personality disorders. Such assessment may also help determine how clinical differentiation among the disorders might be accomplished. Using a clinical sample, research has shown that the facets from the FFM are relevant for understanding personality pathology (Reynolds & Clark, 2001). Although using the domains yielded only minimal incremental validity, when facet scales were used to predict personality disorders, the facets significantly predicted twelve of thirteen disorders. Such studies suggest that the FFM possesses the ability to describe personality disorders and thus, could lead to an alternative approach to understanding personality disorders through the FFM.

If personality disorders were indeed on a continuum as extremes of general personality functioning, some relationship between these common personality facets and personality disorder traits should be found in both normal and clinical populations as some individuals in the general population would exhibit subclinical or clinical manifestations of these disorders. These might present themselves as traits or features that cause some impairment and/or distress, but not to a degree to meet the

criteria for a DSM diagnosis of a personality disorder. Because these personality traits would be distributed throughout the population, this suggests that it is important to study both clinical and nonclinical populations.

Clinical populations often appear differently than the general population in terms of the severity and level of dysfunction of their symptoms. In addition to this, clinical populations often have comorbid Axis I diagnoses that complicate the picture of the disorder. Trull (1995) suggested that creating psychometric strategies to investigate subsyndromal and syndromal symptoms of [borderline] personality disorders would be important because participants who manifested several clinical features characteristic of that disorder could be identified and assessed. This seems to be suggesting that individuals diagnosed with personality disorders are distinguishable from one another and from nonclinical samples by the extent to which they manifest traits of those disorders. Research has also found that when completing personality inventories, individuals from the general population had scores in the clinical range of functioning on certain scales (Livesley, Jackson & Schroeder, 1992). Such a finding suggests that there are not distinct discontinuities but in fact, there is considerable overlap between the populations. Using the NEO PI-R and MCMI-III, Dyce & O'Connor (1998) found that 63% of the relationships hypothesized by Widiger & Trull (1994) were significant between personality disorder scales and five factor model facets. They stated that one limitation of such a study was the use of a nonclinical sample. However, if personality disorders are indeed on a continuum, the

distribution in a nonclinical sample would be vital in order to examine the full spectrum of such traits.

The purpose of this study is to examine subclinical manifestations of personality disorders that would be expected in a general population. A dimensional model of personality disorders assumes that the personality traits relevant to personality disorders are distributed throughout the population and some of these traits might be found in a university sample. If personality disorders yield particular profiles on measures of the five-factor model of general personality (Widiger et al., 2002, see Table 1) then studies of individuals with subclinical maladaptive personality features should yield similar, though possibly attenuated, relationships. For example, it is expected that an individual with subclinical personality features of schizoid personality disorder would score low on the warmth, gregariousness and positive emotions facets of extraversion and low on the feelings facet of openness to experience.

Another aspect of this study is to investigate the relationship of the five-factor model to personality disorders as assessed by recently developed instruments. Previous studies have employed instruments based on earlier editions of the diagnostic manual (i.e., DSM-III-R) and used different instruments (e.g., PDQ-R and/or MCMI-II/III). The present study used measures based on the current manual, DSM-IV. In addition, it is expected that there would be convergence in the OMNI and PDQ-4+ personality disorder subscales of the two instruments. For example, the

Histrionic personality disorder subscale of the OMNI should show convergent validity to the Histrionic personality disorder subscale of the PDQ-4+.

Therefore, the list of my hypotheses is as such:

1) NEO general personality facets as indicated by Widiger et al. (2002) will be related to personality disorders as measured by the OMNI Personality Disorder Inventory.
2) NEO general personality facets as indicated by Widiger et al. (2002) will be related to personality disorders as measured by the Personality Disorder Questionnaire-4+ (PDQ-4+).
3) Personality disorders as measured by the Personality Disorder Questionnaire-4+ (PDQ-4+) will be related to personality disorders as measured by the OMNI.

CHAPTER 2

METHOD

Participants

One hundred and thirty-three undergraduate students at Morehead State University volunteered to participate in the study. Participants (35 males, 98 females) were given research credit hours for their psychology or education class and gave written informed consent (see Appendix A). The mean age of the sample was 22.78 years (SD = 6.08; range = 18-48); 30.1% of the participants were sophomores, 27.8% were freshmen, 22.6% were juniors and 16.5% were seniors. 92.5% of the participants were Caucasian, 4.5% were African American, 1.5% were American Indian, 0.8% were Asian and 0.8% were Hispanic. Participants were debriefed (see Appendix B) following completion of the instruments.

Materials

OMNI. The OMNI (Loranger, 2001; see Appendix C) is a 390-item self-report inventory designed to measure normal and abnormal personality traits and assess personality disorders. The OMNI is comprised of ten personality disorder scales based on Diagnostic and Statistical Manual-IV (DSM-IV), twenty-five general personality traits that are useful to clinicians, counselors, personality psychologists and research investigators (e.g., Assertiveness, Modesty and Trustfulness) and seven broad factor scales that provide information integrating the general and abnormal personality scales (Agreeableness, Conscientiousness, Extraversion, Narcissism, Neuroticism, Openness, and Sensation-seeking). Reported internal consistency

coefficients (Loranger, 2001) for the factor scales range from .79 (Conscientiousness) to .94 (Agreeableness, Narcissism, Neuroticism, and Sensation-Seeking). Reported internal consistency coefficients for general personality scales ranged from .72 (Dutifulness and Self-Reliance) to .90 (Conventionality). The personality disorder scales' internal consistency are reported to be from .76 (Schizoid) to .86 (Borderline).

PDQ-4+. The Personality Diagnostic Questionnaire-4+ (see Appendix D; Hyler, 1998) is a 99–item true/false self-report inventory designed to screen for the ten personality disorders found in the DSM-IV as well as two additional disorders located in the appendix. This inventory assesses both overall personality disturbance and specific personality diagnoses. In addition to this, the PDQ-4+ has a scale designed to pick up on the underreporting of symptoms (TG "Too Good" scale) and a scale designed to identify people who are lying or randomly responding (SQ "Suspect Questionnaire"). Internal consistency coefficients reported by Hyler et al. (1989) ranged from .56 (Schizoid) to .84 (Dependent).

NEO PI-R. The NEO PI-R (see Appendix E; Costa & McCrae, 1992) is a 240-item measure to which the extent of subject agreement/disagreement is rated on a five point scale (where 0 is strongly disagree and 4 is strongly agree). This instrument was designed to assess five bipolar domains (Neuroticism, Extraversion, Openness to Experience, Agreeableness and Conscientiousness) and six narrower facets of the FFM. The facets of Neuroticism are Anxiousness, Angry Hostility, Depressiveness, Self-Consciousness, Impulsivity and Vulnerability. The facets of Extraversion include Warmth, Gregariousness, Assertiveness, Activity, Excitement-Seeking and Positive

Emotions. The facets of Openness to Experience are Fantasy, Aesthetic, Feelings, Actions, Ideas and Values. Lower-order facets of Agreeableness are Trust, Straightforwardness, Altruism, Compliance, Modesty and Tender-Mindedness. Conscientiousness is comprised of the facets Competence, Order, Dutifulness, Achievement, Self-Discipline and Deliberation. Internal consistency data is reported (Costa & McCrae, 1992) at the domain level ranging from .86 (Agreeableness) to .93 (Neuroticism). Internal consistency coefficients for the facet scales range from between .56 (Tender-Mindedness) to .81 (Depressiveness).

Participants also completed a basic demographic form (see Appendix F) identifying their age, sex, race and year in college.

Procedure

Students were offered the opportunity to earn extra credit by participating in a study where they would describe "the way they think and feel". The inventories were randomized and administered in a group setting.

CHAPTER 3

RESULTS

Reliability analyses

The coefficient alpha for the OMNI was $\alpha = .85$. Internal consistency coefficients for the personality disorder scales ranged from .52 (Paranoid) to .86 (Borderline). The coefficient alpha for the PDQ-4+ was $\alpha = .83$. Internal consistency coefficients ranged from .37 (Obsessive Compulsive) to .76 (Avoidant). Coefficient alpha for the NEO PI-R was $\alpha = .84$. Internal consistency coefficients for the domain scales ranged from .70 (Agreeableness) to .84 (Neuroticism).

Correlational analyses

The domain and facet scales of the NEO PI-R were correlated with the personality disorder scales of the OMNI to determine if abnormal personality can be defined using a general personality inventory. The domain and facet scales of the NEO PI-R were also correlated with the primary scales of the PDQ-IV to determine if abnormal personality can be defined using a general personality inventory. These correlations are reported in Tables 2 (OMNI and NEO PI-R) and 3 (PDQ-4+ and NEO PI-R). Due to the large number of correlational analyses, a modified Bonferonni adjustment was applied to all tests of significance. The adjusted significance level was .001.

Overall support for the hypothesized relationships between NEO facets and OMNI PD scales was moderate, where 34 of 73 predicted relationships (47%) were

significant (see Table 2). As can be seen in Table 3, overall support for the hypothesized relationships between NEO facets and PDQ-4+ PD scales was moderate where 30 of 73 predicted relationships (41%) were significant. Thus, 64 of the total 146 predicted relationships (44%) were supported. Between the two personality disorder measures, the strongest support for hypothesized relationships emerged for the borderline, avoidant and schizoid predictions, whereas only modest support emerged for the schizotypal predictions and no support was shown for obsessive-compulsive relationships. For both instruments, borderline personality disorder was correlated with all eight of the hypothesized facets (positively correlated to the anxiousness, angry hostility, depressiveness, impulsivity and vulnerability of the neuroticism domain and negatively correlated to the trust and compliance facets of agreeableness and the competence facet of conscientiousness). While OMNI avoidant personality disorder was correlated with all seven of the hypothesized facets, PDQ-4+ avoidant personality disorder was correlated with six of the seven hypothesized facets (positively related to the anxiousness, depressiveness, self-consciousness and vulnerability facets of neuroticism and negatively related to the gregariousness and assertiveness facets of extraversion but not significantly negatively related to the excitement facet of extraversion). For both instruments, schizoid personality disorder was negatively correlated to three of the hypothesized facets, warmth, gregariousness and positive emotions of the extraversion domain but not significantly correlated to the feelings facet of the openness to experience domain. However, for obsessive-compulsive personality disorder, none of the hypothesized relationships (expected

positive correlations to the assertiveness facet of extraversion and to the competence, order, dutifulness and achievement-striving facets of conscientiousness and negative correlations to the values facet of openness to experience and the compliance facet of agreeableness). In addition to this, there were numerous significant but nonpredicted relationships that emerged. The correlations for 93 of the total 454 cases (21%) where no predictions were made reached significance. One example of this is the unexpected significant positive relationships between OMNI schizotypal personality disorder and the angry hostility, depressiveness and vulnerability facets of neuroticism, and the significant negative relationships with the altruism facet of agreeableness and the competence and self-discipline facets of conscientiousness.

The correlations between five factor model domain scores and personality disorder scales were also conducted (see Tables 2 and 3). In the majority of cases, personality disorders were more comprehensively described at the facet level. For example, in the case of OMNI avoidant personality disorder, the neuroticism facets of anxiousness, angry hostility, depressiveness and vulnerability were significantly correlated to avoidant personality disorder while impulsivity was not. The correlation for the facet of self-conscious ($r = .50$) was even somewhat greater than the overall domain correlation of neuroticism ($r = .44$). However, correlations were sometimes higher with the domain than any with the facets. Continuing to look at OMNI avoidant personality disorder, the overall domain correlation of extraversion ($r = -.61$) was higher than any of the facet level relationships to this disorder.

Pearson correlation coefficients were then computed between the OMNI PD scales and PDQ-4+ PD scales and they are reported in Table 4. The mean convergent validity coefficient was .55 (.36 obsessive compulsive to .74 borderline) with all correlations reaching adjusted significance of .001. However, discriminant validity analysis showed many significant relationships between the different personality disorder scales (e.g., $r = .54$ between OMNI paranoid personality disorder and PDQ borderline personality disorder), as well as many significant relationships within each of the personality disorder inventories themselves (e.g., $r = .68$ between OMNI paranoid and borderline personality disorders and $r = .65$ between PDQ-4+ avoidant and dependent personality disorders). Nevertheless, for each instrument, the ten personality disorders' convergent correlations were generally higher than all divergent correlations.

Regression analyses

In order to assess the ability of the personality facets to account for the personality disorders, a series of regression analyses were conducted. Because FFM facets are hypothesized to characterize each of the personality disorders, it was of interest to determine if the hypothesized facets predict a unique amount of variance for each of the individual personality disorders. Additionally, it was important to determine the relationship between the unhypothesized facets and the individual personality disorders. Hierarchical regression analyses were conducted for each of the ten personality disorders measured by the OMNI and each of the ten personality disorders measured by the PDQ-4+. For each of these analyses, those personality

facets hypothesized to be predictive of each individual personality disorder were first entered simultaneously into the equation. Next, the remaining personality facets were entered simultaneously into the regression equation. For example, for paranoid personality disorder measured by the OMNI, in the first step the hypothesized facets were simultaneously entered (i.e., angry hostility, trust, straightforwardness and compliance). In the second step, the remaining twenty-six personality facets were entered simultaneously (e.g., anxiety, depression, self-consciousness, etc.). The hypothesized predictions of specific personality profiles were based on the work of Widiger, et al. (2002).

As a set, the hypothesized personality facets functioned to predict a significant amount of personality disorder variance across the two measures (see Tables 5 and 6), ranging from $\Delta R^2 = .137$, $p<.01$ (OMNI obsessive-compulsive personality disorder) to $\Delta R^2 = .516$, $p<.001$ (OMNI avoidant personality disorder). However, not all of the individual hypothesized facets contributed a significant amount of unique variance. For example, for OMNI borderline personality disorder, as a set, the hypothesized facets functioned to predict $R^2 = .484$, $p < .001$. When considered individually, depression is the only hypothesized facet to predict borderline personality disorder ($\beta = .238$, $p = .015$). In fact, typically only a small minority of hypothesized facets predicted a significant amount of unique variance (e.g., of the nine personality traits hypothesized to be predictive for schizotypal personality disorder, ideas and trust are the only two hypothesized personality traits to account for a unique amount of the variance in PDQ-4+ schizotypal personality disorder). Those individual hypothesized

facets that are significant predictors of personality disorders range from $\beta = .174$ (openness to fantasy in predicting OMNI narcissistic personality disorder) to $\beta = .481$ (straightforwardness in predicting PDQ-4+ paranoid personality disorder).

The facets that were not hypothesized to be particularly predictive in some cases functioned to account for a significant amount of personality disorder variance (also see Tables 5 and 6), ranging from $\Delta R^2 = .077$, $p = .872$ (PDQ-4+ antisocial personality disorder) to $\Delta R^2 = .352$, $p < .001$ (OMNI obsessive-compulsive disorder). Unhypothesized personality traits accounted for a significant additional amount of the variance in personality disorders half of the time. For example, for OMNI schizoid personality disorder, $\Delta R^2 = .222$, indicating that the unhypothesized variables predict an additional 22% of the variance above and beyond those facets hypothesized to be predictive. More specifically, the unhypothesized facets of depression ($\beta = .441$, $p = .001$), altruism ($\beta = -.288$, $p < .01$) and achievement striving ($\beta = .282$, $p < .05$) were significant predictors of schizoid personality disorder. When using all thirty of the facets of general personality to predict personality disorders, total variances ranged from $R^2 = .338$, $p = .034$ (PDQ-4+ obsessive-compulsive personality disorder) to $R^2 = .661$, $p < .001$ (OMNI avoidant personality disorder).

One thing that must be noted is that, in many cases, it is different personality facets (both hypothesized and unhypothesized) that predict one personality disorder as measured separately by the OMNI and the PDQ-4+. For example, while the hypothesized facet of modesty was predictive for both OMNI and PDQ-4+ narcissistic personality disorder, other facets predictive for OMNI narcissistic

personality disorder included fantasy, tender-mindedness, ideas, straightforwardness, competence and self-discipline while angry hostility and trust additionally predicted PDQ-4+ narcissistic personality disorder.

CHAPTER 4

DISCUSSION

The purpose of this study was to look at those subclinical manifestations of personality disorders that would be found in a general population. More specifically, it was of interest to evaluate the relationships between personality disorder characteristics and five factor model personality traits as hypothesized by Widiger et al. (2002). In this study, there were many modest relationships between personality disorder characteristics and general personality traits. This finding is consistent with the assumption that personality disorders may be described as different blends of various facets of the five factor model of general personality functioning. This lends support to the notion that the five factor model provides a descriptive framework for the understanding of personality disorders.

As has been noted in previous research (Axelrod et al., 1997; Dyce & O'Connor, 1998; Huprich, 2003), inspection at the facet level is an important component to understanding personality disorders. Many of the facet level analyses were greater than overall domain level scores suggesting that, in many cases, there is greater discrimination between personality disorder characteristics at the lower order traits. Additionally, this type of framework provides a more comprehensive description of the various personality disorders.

As a set, the hypothesized facets predicted a significant amount of the variance of personality disorders. Typically, each of these individual facets considered alone were unable to function as important, significant predictors of

personality disorders; however, when taken as a group, this set of facets did quite well in predicting personality disorders. Interestingly enough, when the unhypothesized facets were examined, this set contributed a great deal to capturing a significant amount of the variance of personality disorders. This suggests that using all thirty of the facets may be important in descriptions of individuals with personality disorders as additional facets can provide a more comprehensive picture. Using the thirty facets would be a logical step as individuals may differ on all of these traits and a strong presence of certain unhypothesized traits could alter the manifestation of the disorder. The fact that many unhypothesized relationships were found significant is because Widiger et al (2002) confined the hypothesized relationships to personality disorders as described by DSM-III-R and DSM-IV criterion sets of personality disorders. Personality disorders involve more traits than just those that are captured by DSM criterion sets (Lynam & Widiger, 2001; Samuel & Widiger, in press). The five factor model includes numerous personality traits that are not included in the personality disorder taxonomy which have been suggested to be theoretically and clinically useful in describing personality disorders (Costa & McCrae, 1990). For example, in a study by Samuel & Widiger (in press), clinicians were able to describe individuals with paranoid personality disorder more broadly through the inclusion of FFM facets of low positive emotionality, low openness to values, high anxiousness, low warmth, low gregariousness, low altruism and low tender-mindedness. Using all domains and facets of the FFM might provide more accurate and comprehensive descriptions of the personality disorders. Lynam & Widiger (2001), found that FFM descriptions of

personality disorders generated by researchers were more comprehensive in their coverage of personality functioning than that of DSM-III-R diagnostic criterion sets. Additionally, Samuel & Widiger (in press) found that practicing clinicians were able to conceptualize prototypic DSM-IV personality disorders in terms of the FFM reliably. These descriptions also agreed well with the descriptions provided by academic researchers in the previous study (Lynam and Widiger, 2001) and provided richer depictions than that provided by the DSM framework.

As well as the general personality model did in predicting variance of personality disorders, there was still a substantial proportion of variance that was unaccounted for (34-67%). Additionally, many of the relationships hypothesized by Widiger et al. (2002) were not confirmed. It is likely a bit unrealistic to expect all of the relationships to be confirmed. One important aspect of these hypotheses is that these predictions were created to capture all of the diagnostic criteria for each of the personality disorders. Only those individuals who were prototypic cases of personality disorder would perfectly match the profile suggested. Additionally, those relationships that can be considered most important for each of the personality disorders (Gunderson, 1992) typically were found. For example, though the facets of straightforwardness and compliance were not found to be significantly related to OMNI paranoid personality disorder, the "cardinal trait" of the disorder, low trust was significantly related to this disorder. Additionally, for PDQ-4+ schizoid personality disorder, while the hypothesized facet of openness to feelings was not found to be

significant, the central facets of low extraversion (i.e., warmth, gregariousness and positive emotions) were significantly related to schizoid personality disorder.

However, for obsessive compulsive and dependent personality disorder, this was not the case. Of the hypothesized relationships, even those considered most important were not found significant. This may be due to the existence of factors in personality disorders that are not measured by the NEO PI-R (e.g., interpersonal relatedness, attachment, dysfunctional beliefs). Similarly, those factors that are examined (e.g., conscientiousness) may not include strong enough measures of the maladaptive ends of the domain as this instrument was created primarily for use in a nonclinical population. Reynolds & Clark (2001) suggest that though the NEO PI-R is the only self-report measure that assesses the facet traits of the FFM, the NEO PI-R should not be synonymous with the FFM and future research may suggest areas to refine the instrument. Obsessive compulsive personality disorder would be expected to have significant relationship with the cardinal traits of high conscientiousness facets. However, in this study, these relationships were not found. Similarly, the chief traits of high agreeableness that would be expected to be significantly related to dependent personality disorder were not found. However, prior research has frequently failed to find those predicted positive relationships of obsessive compulsive personality disorder with conscientiousness and dependent personality disorder with agreeableness (e.g., Bornstein & Cecero, 2000). Haigler & Widiger (2001) suggest that these findings could be due to limitations in the NEO PI-R's coverage of maladaptive aspects of agreeableness and conscientiousness (they

similarly suggest that the maladaptive end of openness is likely not assessed and may explain low hypothesized correlations to disorders such as schizotypal personality disorder, as was the case in the current study). In fact, this research experimentally manipulated the wording of NEO PI-R items to describe behaviors, attitudes, or traits that are "excessive, problematic, or otherwise maladaptive". These subtle changes resulted in significant correlations with obsessive compulsive, dependent and schizotypal personality disorder symptomatology and, "in some instances, even produce items that resemble explicitly the symptomatology for these personality disorders" (Haigler & Widiger, 2001, p. 352). This suggests that a revised version of the NEO PI-R would provide a more comprehensive assessment of personality functioning such that it would include personality disorder symptomatology.

Another aspect of this study was to examine the relationship of recently developed instruments. The majority of the current empirical literature used instruments that were based on earlier editions of the diagnostic manual (i.e., DSM-III-R) and used different instruments (e.g., PDQ-R and/or MCMI-II/III). The OMNI and the PDQ-4+ showed moderate to strong convergent validity for the personality disorder diagnoses. However, there was a lack of discriminant validity in each of the instruments as both had many significant inter-scale correlations. This may reflect the amount of overlap found in the personality disorder diagnoses. In addition to this, though both measures seem to be adequately reliable, certain scales (e.g., Obsessive compulsive of the PDQ-4+ and Paranoid of the OMNI) had low reliability coefficients. Additionally, there were different general personality traits that served as

predictors for each of the personality disorders. This seems to suggest that the two personality disorder inventories may be describing the personality disorders differently or are possibly placing levels of importance on different characteristics of the disorders. Hicklin & Widiger (in press) discuss that six antisocial personality disorder/psychopathy self-report inventories conceptualized these characteristics in differing manners with reported convergent validity ranging from .15 to .91. However, they found that while there were meaningful differences between the inventories of this personality disorder, the similarities and differences among the inventories may be understood using the FFM. This information may translate to the current study's assessment of antisocial personality disorder as well as the other nine disorders in the way they are being assessed by the two personality disorder inventories. It is possible that the FFM would be able to clarify these differences in descriptions of the personality disorders. For example, while the PPI, SRP-II and MCMI-III obtained respectable convergent validity coefficients (.45 to .78) their descriptions of these characteristics varied. All scales were characterized by low straightforwardness, low altruism, low compliance, low deliberation, low dutifulness, low self-discipline and high excitement-seeking. However, the PPI and SRP-II correlated negatively with anxiousness, self-consciousness and vulnerability while the MCMI-III correlated positively with these facets of neuroticism. This is consistent with how low anxiousness, glib charm and fearlessness are included in many conceptualizations of psychopathy but are not represented in the DSM-IV criteria for antisocial personality disorder (APD).

Limitations and future direction

A limitation of the present study was the use of several self-report instruments as the measure for both personality disorders and the five factor model. An important factor to consider is the possible inflation of relationships due to method variance. Each of the measures had different response formats which would decrease method variance, but it would be important for future research to include additional methodologies such as peer reports (Klonsky et al, 2002) and semi-structured interviews (Trull et al., 1998).

Another limitation to this study is the use of a nonclinical sample. If personality disorders are indeed on a continuum, the distribution in a nonclinical sample may be essential in order to examine the full spectrum of such traits. A dimensional model of personality disorders assumes that the personality traits relevant to personality disorders are distributed throughout the population and should be found in a university setting. Nevertheless, the range of scores could still have been inadequate to maximize the magnitude of relationships between the measures of general personality functioning and personality disorder. Future research should replicate and extend these findings within a clinical sample. Research with individuals diagnosed with personality disorder could be conducted using clinical interviews, clinician ratings of the client, self-report and peer report of symptoms and personality traits. Further research should also be completed assessing the clinical utility of the FFM in diagnosing personality disorders. Such research should focus on

the ease of use, comprehensiveness and incremental validity provided by such a model.

CHAPTER 5

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Appendix A

Informed consent

This study will be measuring personality traits. Please realize that you do not have to participate and you may withdraw from this study at any point.

In this study, you will be filling out questionnaires that look at personality traits. You will be answering questions about yourself (e.g., I enjoy going to parties). You will be given specific instructions immediately prior to the experiment. The experiment will take approximately two hours to complete. The results of this study will give more information about the way personality traits are distributed.

You must be 18 years or older to participate. This study has been reviewed to determine that your rights are safeguarded and there appears to be minimal risks and discomfort associated with this experiment. You may choose to discontinue your participation at any time. Your decision to participate **cannot** hurt your grade. You may receive extra credit in your psychology course for assisting me in my research if your instructor allows such an option. If extra credit is offered, and you do not wish to participate or you are under the age of 18, an alternative method of extra credit will be offered by your instructor. Instructors are free to not allow participation in their class.

The data that we obtain from you will be kept strictly confidential, and it will be stored in a locked filing cabinet accessible only to the researcher. Your name will not be associated with your data. You will be assigned a subject number and your data will be associated with that number. Please feel free to ask if something does not make sense to you or if you have any questions. You may contact me, Stephanie Mullins at 783-9426 or Dr. David Olson at 783-2987 if you have any additional concerns about the study. If you experience any discomfort, you may contact the MSU Counseling Center at 783-2123.

If you decide to volunteer, please be sure to print your name on the form and sign it to indicate your willingness to participate. That will be our indication that you understand the purpose of the experiment and that you are willing to help. Thank you for your participation.

By signing below, I verify that I have been informed of and understand the nature and purpose of this project, freely consent to participate and am at least 18 years of age.

Name (please print) _____

Signature _____

Appendix B

Debriefing statement

Personal attitudes & Typical behaviors

This project is being conducted by Stephanie Mullins of the Department of Psychology at Morehead State University. The purpose of this study is to learn how personality traits are related to an individual's general psychological functioning and his/her typical ways of relating to others.

We wish to emphasize again that all information that you have provided will remain anonymous and strictly confidential. When the project is completed, individual responses will not be identified or reported, only the responses of the entire group of participants will be used.

Your participation in this study is greatly appreciated. Some of the questionnaires you filled out deal with your feelings and behaviors that some people may find distressing. If you experience any discomfort based on your behavior or psychological functioning, you may contact the MSU Counseling Center at 783-2123 for assistance in coping with this distress. If you have any questions about this project, please contact Stephanie Mullins at 783-9426 or Dr. David Olson in the Psychology Department at Morehead State University at 783-2987.

Appendix C

OMNI

Instructions: Read each statement and fill in the circle that best describes you or your opinions **during the past five years**. Please try to answer every item. Use the following format:

1	2	3	4	5	6	7
Definitely Agree	**Very probably agree**	**Probably agree**	**Possibly agree**	**Probably disagree**	**Very probably disagree**	**Definitely disagree**

__ 7. I feel inferior to most people.

__ 29. I am very aware of other people's feelings.

__ 37. Most people are fair and honest with me.

__ 46. I could use a lot more patience.

__ 53. It's better not to display affection in public.

__ 65. I have little or no desire to have sex with anyone.

__ 73. I have cut or burned myself on purpose.

__ 82. I am a nervous person.

__ 97. I've often had to pay the price for acting too quickly.

__105. One of my worst traits is stubbornness.

__114. I am one of those people who always has to be doing something.

__122. I believe in the saying: "My country right or wrong".

__137. It's so important to save money that I don't buy things I really need.

__143. I have a "sixth sense" that allows me to discover what is going on.

__153. It's easy for me to postpone or control a strong urge to do something.

__163. I avoid unfamiliar activities so I won't be embarrassed trying them.

__178. I enjoy scientific or philosophical discussions.

__184. A lot of things frighten me that don't seem to bother other people.

__192. You can't always tell the whole truth if you want to get ahead.

Instructions: Read each statement and fill in the circle that best describes you or your opinions **during the past five years**. Please try to answer every item. Use the following format:

1	2	3	4	5	6	7
Always	**Very frequently**	**Frequently**	**Occasionally**	**Rarely**	**Very rarely**	**Never**

__206. When I'm alone, I feel helpless.

__210. I have temper tantrums or angry outbursts.

__222. I daydream about having an ideal romance.

__233. I show my feelings for everyone to see.

__243. Before making everyday decisions, I get another opinion.

__253. I enjoy talking to strangers.

__262. I drink more alcohol than I should.

__274. I feel down in the dumps.

__283. I go out of my way to visit scenic places.

__296. People's faces seem to suddenly change their shape or appearance.

__305. I've been stopped by the police for speeding or reckless driving.

__314. People find it hard to get the point of what I'm saying.

__325. I fly off the handle too easily.

__339. When my character is attacked, I'm quick to get angry or fight back.

__344. I work so hard, even when I don't have to, that I neglect other people.

__352. I keep my opinions to myself.

The remaining items are different from all the preceding ones. They concern only the **past week (last seven days)**. Use the following format:

1	2	3	4	5	6	7
Always	**Very frequently**	**Frequently**	**Occasionally**	**Rarely**	**Very rarely**	**Never**

__354. Things have gone my way.

__362. I've had plenty of energy.

Appendix D

Personality Disorder Questionnaire-4

Instructions

The purpose of this questionnaire is for you to describe the kind of person you are. When answering the questions, think about how you have tended to feel, think, and act over the past several years. To remind you of this, on the top of each page you will find the statement: "Over the past several years..."

T (True) means that the statement is generally true for you.
F (False) means that the statement is generally false for you.

Even if you are not entirely sure about the answer, indicate "T" or "F" for every question.

For example:

xx. I tend to be stubborn. T F

If, in fact, you have been stubborn over the past several years, you would answer True by circling T.

If this was not true at all for you, you would answer False by circling F.

There are no correct answers. You may take as much time as you wish.

Over the last several years...

1. I avoid working with others who may criticize me.	T	F
2. I can't make decisions without the advice, or reassurance, of others.	T	F
3. I often get lost in details and lose sight of the "big picture".	T	F
4. I need to be the center of attention.	T	F
5. I have accomplished far more than others give me credit for.	T	F
6. I'll go to extremes to prevent those I love from ever leaving me.	T	F
7. Others have complained that I do not keep up with my work or commitments.	T	F
8. I've been in trouble with the law several times (or would have been if I was caught).	T	F

Over the last several years…

9. Spending time with family or friends just doesn't interest me.	T	F
10. I get special messages from things happening around me.	T	F
11. I know that people will take advantage of me, or try to cheat me, if I let them.	T	F
12. Sometimes I get upset.	T	F
13. I make friends with people only when I am sure they like me.	T	F
14. I am usually depressed.	T	F
15. I prefer that other people assume responsibility for me.	T	F
16. I waste time trying to make things too perfect.	T	F
17. I am "sexier" than most people.	T	F
18. I often find myself thinking about how great a person I am, or will be.	T	F
19. I either love someone or hate them, with nothing in between.	T	F
20. I get into a lot of physical fights.	T	F
21. I feel that others don't understand or appreciate me.	T	F
22. I would rather do things by myself than with other people.	T	F
23. I have the ability to know that some things will happen before they actually do.	T	F
24. I often wonder if the people I know can really be trusted.	T	F
25. Occasionally I talk about people behind their backs.	T	F
26. I am inhibited in my intimate relationships b ecause I am afraid of being ridiculed.	T	F
27. I fear losing the support of others if I disagree with them.	T	F
28. I suffer from low self-esteem.	T	F
29. I put my work ahead of being with my family or friends or having fun.	T	F
30. I show my emotions easily.	T	F
31. Only certain special people can really appreciate and understand me.	T	F
32. I often wonder who I really am.	T	F
33. I have difficulty paying bills because I don't stay at one job for long.	T	F

Over the last several years…

34. Sex just doesn't interest me.	T	F
35. Others consider me moody and "hot tempered".	T	F
36. I can often sense, or feel things, that others can't.	T	F
37. Others will use what I tell them against me.	T	F
38. There are some people I don't like.	T	F
39. I am more sensitive to criticism or rejection than most people.	T	F
40. I find it difficult to start something if I have to do it by myself.	T	F
41. I have a higher sense of morality than other people.	T	F
42. I am my own worst critic.	T	F
43. I use my "looks" to get the attention that I need.	T	F
44. I need very much for other people to take notice of me or compliment me.	T	F
45. I have tried to hurt or kill myself.	T	F
46. I do a lot of things without considering the consequences.	T	F
47. There are few activities that I have any interest in.	T	F
48. People often have difficulty understanding what I say.	T	F
49. I object to supervisors telling me how I should do my job.	T	F
50. I keep alert to figure out the real meaning of what people are saying.	T	F
51. I have never told a lie.	T	F
52. I am afraid to meet new people because I feel inadequate.	T	F
53. I want people to like me so much that I volunteer to do things that I'd rather not do.	T	F
54. I have accumulated lots of things I don't need that I can't bear to throw out.	T	F
55. Even though I talk a lot, people say I have trouble getting to the point.	T	F
56. I worry a lot.	T	F
57. I expect other people to do favors for me even though I do not usually do favors for them.	T	F
58. I am a very moody person.	T	F

Over the last several years…

59. Lying comes easily to me and I often do it.	T	F
60. I am not interested in having close friends.	T	F
61. I am often on guard against being taken advantage of.	T	F
62. I never forget, or forgive, those who do me wrong.	T	F
63. I resent those who have more "luck" than I do.	T	F
64. A nuclear war may not be such a bad idea.	T	F
65. When alone I feel helpless and unable to care for myself.	T	F
66. If others can't do things correctly, I would prefer to do them by myself.	T	F
67. I have a flair for the dramatic.	T	F
68. Some people think that I take advantage of others.	T	F
69. I feel that my life is dull and meaningless.	T	F
70. I am critical of others.	T	F
71. I don't care what others have to say about me.	T	F
72. I have difficulties relating to others in a one-to-one situation.	T	F
73. People have often complained that I did not realize they were upset.	T	F
74. By looking at me, people might think that I'm pretty odd, eccentric or weird.	T	F
75. I enjoy doing risky things.	T	F
76. I have lied a lot on this questionnaire.	T	F
77. I complain a lot about my hardships.	T	F
78. I have difficulty controlling my anger or temper.	T	F
79. Some people are jealous of me.	T	F
80. I am easily influenced by others.	T	F
81. I see myself as being thrifty but others see me as being cheap.	T	F
82. When a close relationship ends, I need to get involved with someone else immediately.	T	F
83. I suffer from low self-esteem.	T	F

Over the last several years…

84. I am a pessimist.	T	F
85. I waste no time in getting back at people who insult me.	T	F
86. Being around other people makes me nervous.	T	F
87. In new situations, I fear being embarrassed.	T	F
88. I am terrified of being left to care for myself.	T	F
89. People complain that I'm "stubborn as a mule".	T	F
90. I take relationships more seriously than do those who I'm involved with.	T	F
91. I can be nasty with someone one minute then find myself apologizing to them the next minute.	T	F
92. Others consider me to be stuck up.	T	F
93. When stressed, things happen. Like I get paranoid or just "black out".	T	F
94. I don't care if others get hurt so long as I get what I want.	T	F
95. I keep my distance from others.	T	F
96. I often wonder whether my wife/husband (girlfriend/boyfriend) has been unfaithful to me.	T	F
97. I often feel guilty.	T	F

98. I have done things on impulse (such as those below) that can get me into trouble. T F

Check all that apply to you:

a. Spending more money than I have. _____
b. Having sex with people I hardly know. _____
c. Drinking too much. _____
d. Taking drugs. _____
e. Eating binges. _____
f. Reckless driving. _____

99. When I was a kid (before age 15) I was somewhat of a juvenile delinquent, doing some of the things below. T F

Check all that apply to you:

a. I was considered a bully. _____
b. I used to fights with other kids. _____
c. I used a weapon in fights that I had. _____
d. I robbed or mugged other people. _____
e. I was physically cruel to other people. _____
f. I was physically cruel to animals. _____
g. I forced someone to have sex with me. _____
h. I lied a lot. _____
i. I stayed out late at night without my parents permission. _____
j. I stole things from others. _____
k. I set fires. _____
l. I broke windows or destroyed property. _____
m. I ran away from home overnight more than once. _____
n. I began skipping school, a lot, before age 13. _____
o. I broke into someone's house, building or car. _____

Appendix E

NEO PI-R

Below are a series of statements. Please respond to each by indicating the degree to which you agree with each statement. Use the following format:

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

____ 5. I'm known for my prudence and common sense.

____ 13. Without strong emotions, life would be uninteresting to me.

____ 22. I often crave excitement.

____ 36. I'm an even-tempered person.

____ 48. I think it's interesting to learn and develop new hobbies.

____ 54. I'd rather not talk about myself and my achievements.

____ 62. I'm known as a warm and friendly person.

____ 74. Some people think of me as cold and calculating.

____ 85. I am a productive person who always gets the job done.

____ 91. I often feel tense and jittery.

____ 104. I generally try to be thoughtful and considerate.

____ 116. I keep a cool head in emergencies.

____ 128. Poetry has little or no effect on me.

____ 134. I'm not known for my generosity.

____ 146. It's often hard for me to make up my mind.

____ 157. I'd rather vacation at a popular beach than an isolated cabin in the woods.

____ 169. If someone starts a fight, I'm ready to fight back.

____ 175. When a project gets too difficult, I'm inclined to start a new one.

____ 186. At times I have felt bitter and resentful.

____ 194. I think of myself as a charitable person.

____ 203. I have a lot of intellectual curiosity.

____ 211. Frightening thoughts sometimes come into my head.

____ 222. I don't find it easy to take charge of a situation.

____ 233. I have a wide range of intellectual interests.

____ 240. I think twice before I answer a question.

Appendix F

Demographic Information Form

Gender ____ Male ____ Female

Age ____

Ethnicity ____ African American ____ Asian/Pacific Islander

____ Caucasian/White ____ Hispanic

____ Native American/Alaskan Native

____ Other _____

Marital Status ____ Single ____ Married ____ Divorced

____ Widowed ____ Other _____

Educational level ____ Freshman ____ Sophomore

____ Junior ____ Senior

____ Other _____

Table 1

The DSM-IV-TR Personality Disorders and the Five Factor Model

NEO domains & facets	PAR	SZD	SZT	ATS	BDL
Neuroticism					
N1: Anxiety			H		H
N2: Angry hostility	H			H	H
N3: Depression					H
N4:Self-consciousness			H		
N5: Impulsiveness					H
N6: Vulnerability					H
Extraversion					
E1: Warmth		L	L		
E2: Gregariousness		L	L		
E3: Assertiveness					
E4: Activity					
E5:Excitement-seeking				H	
E6: Positive emotions		L	L		
Openness to Experience					
O1: Fantasy			H		
O2: Aesthetics					
O3: Feelings		L			
O4: Actions			H		
O5: Ideas			H		
O6: Values					

Note. H = high, L = low based on *DSM-IV-TR (*APA, 2000) diagnostic criteria. NEO = Revised NEO Personality Inventory. Personality disorders: PAR = paranoid; SZD = schizoid; SZT = schizotypal; ATS = antisocial; BDL = borderline; From "A Description of the DSM-IV Personality Disorders with the Five-Factor Model of Personality," by T.A. Widiger, T. J. Trull, J. F. Clarkin, C. Sanderson, and P.T. Costa. In *Personality disorders and the five-factor model of personality 2nd ed. (2002).* (p. 90), by P. T. Costa & T. A. Widiger. Adapted with permission from the author.

Table 1 (cont.)

NEO domains & facets	HST	NAR	AVD	DEP	OBC
Neuroticism					
N1: Anxiety			H	H	
N2: Angry hostility		H			
N3: Depression	H		H		
N4: Self-consciousness	H	H	H	H	
N5: Impulsiveness					
N6: Vulnerability			H	H	
Extraversion					
E1: Warmth	H			H	
E2: Gregariousness	H		L		
E3: Assertiveness			L	L	H
E4: Activity					
E5:Excitement-seeking	H		L		
E6: Positive emotions	H				
Openness to Experience					
O1: Fantasy	H	H			
O2: Aesthetics					
O3: Feelings	H				
O4: Actions					
O5: Ideas					
O6: Values					

Note. H = high, L = low based on *DSM-IV-TR* (APA, 2000) diagnostic criteria. NEO = Revised NEO Personality Inventory. Personality disorders: HST = histrionic; NAR = narcissistic; AVD = avoidant; DEP = dependent; OBC = obsessive-compulsive. From "A Description of the DSM-IV Personality Disorders with the Five-Factor Model of Personality," by T.A. Widiger, T. J. Trull, J. F. Clarkin, C. Sanderson, and P.T. Costa. In *Personality disorders and the five-factor model of personality 2nd ed. (2002).* (p. 90), by P. T. Costa & T. A. Widiger. Adapted with permission from the author.

Table 1 (cont.)

NEO domains & facets	PAR	SZD	SZT	ATS	BDL
Agreeableness					
A1: Trust	L		L		L
A2: Straightforward	L			L	
A3: Altruism				L	
A4: Compliance	L			L	L
A5: Modesty					
A6: Tender-minded				L	
Conscientiousness					
C1: Competence					L
C2: Order					
C3: Dutifulness				L	
C4:Achievement striving					
C5: Self-discipline				L	
C6: Deliberation				L	

Note. H = high, L = low based on *DSM-IV-TR* (APA, 2000) diagnostic criteria. NEO PI-R = Revised NEO Personality Inventory. Personality disorders: PAR = paranoid; SZD = schizoid; SZT = schizotypal; ATS = antisocial; BDL = borderline. From "A Description of the DSM-IV Personality Disorders with the Five-Factor Model of Personality," by T.A. Widiger, T. J. Trull, J. F. Clarkin, C. Sanderson, and P.T. Costa. In *Personality disorders and the five-factor model of personality 2nd ed. (2002).* (p. 90), by P. T. Costa & T. A. Widiger. Adapted with permission from the author.

Table 1 (cont.)

NEO domains & facets	HST	NAR	AVD	DEP	OBC
Agreeableness					
A1: Trust	H			H	
A2: Straightforward					
A3: Altruism		L		H	
A4: Compliance				H	L
A5: Modesty		L		H	
A6: Tender-minded		L			
Conscientiousness					
C1: Competence					H
C2: Order					H
C3: Dutifulness					H
C4:Achievement striving		H			H
C5: Self-discipline					
C6: Deliberation					

Note. H = high, L = low based on *DSM-IV-TR* (APA, 2000) diagnostic criteria. NEO = Revised NEO Personality Inventory. Personality disorders: HST = histrionic; NAR = narcissistic; AVD = avoidant; DEP = dependent; OBC = obsessive-compulsive. From "A Description of the DSM-IV Personality Disorders with the Five-Factor Model of Personality," by T.A. Widiger, T. J. Trull, J. F. Clarkin, C. Sanderson, and P.T. Costa. In *Personality disorders and the five-factor model of personality 2nd ed. (2002).* (p. 90), by P. T. Costa & T. A. Widiger. Adapted with permission from the author.

Table 2

Correlations between OMNI PD Scales and facets of the NEO PI-R

	PAR	SCH	SCT	ANT	BOR
Neuroticism	*51**	*29**	*48**	*32**	*67**
Anxiousness	37*	20	**34***	11	**50***
Angry hostility	**39***	24	37*	**19**	**51***
Depressiveness	47*	35*	49*	27	**58***
Self-Conscious	28	29*	**33***	07	36*
Impulsivity	- 33*	- 07	- 15	-36*	**-37***
Vulnerability	29*	22	36*	20	**50***
Extraversion	*- 22**	*- 57**	*- 33**	*01*	*- 27*
Warmth	- 26	-47*	-32*	- 13	- 26
Gregariousness	- 09	-52*	- 27	14	- 12
Assertiveness	- 10	- 27	- 12	02	- 13
Activity	- 12	-31*	- 13	- 03	- 21
Excitement	- 10	-36*	- 19	**17**	- 04
Positive Emotions	- 32*	-47*	-38*	-28*	-40*
Openness	*- 21*	*-31**	*- 15*	*- 04*	*-15*
Fantasy	- 15	- 23	**- 11**	01	-12
Aesthetic	- 18	- 21	- 08	- 20	-12
Feelings	02	- 24	- 07	01	08
Actions	-28*	- 26	**- 17**	09	-19
Ideas	- 23	- 17	**- 08**	- 06	-20
Values	- 04	- 13	- 11	02	-03

Note. Correlation values expected low are underlined, those expected high are in bold.
Personality disorders: PAR = paranoid; SZD = schizoid; SCT = schizotypal; ANT = antisocial; BOR = borderline.
* adjusted $p < .001$

Table 2 (cont.)

	HIS	NAR	AVD	DEP	OBC
Neuroticism	*29**	*07*	*44**	*36**	*34**
Anxiousness	27	04	**29***	**34***	26
Angry hostility	31*	**22**	29*	16	33*
Depressiveness	**14**	- 04	**43***	37*	28*
Self-Conscious	**05**	**- 08**	**50***	**22**	22
Impulsivity	- 23	- 01	01	04	18
Vulnerability	16	- 09	**36***	**49***	22
Extraversion	*27*	*02*	*- 61**	*29**	*14*
Warmth	**08**	- 18	- 46*	- 18	- 12
Gregariousness	**31***	- 06	- 47*	**- 02**	- 19
Assertiveness	18	22	- 50*	- 26	**05**
Activity	21	06	- 29*	- 23	03
Excitement	**29***	004	- 36*	- 21	- 14
Positive Emotions	**- 01**	- 16	- 48*	- 31*	- 16
Openness	*12*	*003*	*- 39**	*- 38**	*-20*
Fantasy	**02**	**04**	- 23	- 21	- 23
Aesthetic	08	- 03	- 28*	- 25	- 05
Feelings	**24**	- 05	- 18	- 11	- 08
Actions	13	- 03	- 35*	- 20	- 18
Ideas	- 01	- 01	- 30*	- 40*	- 09
Values	- 02	- 09	- 21	- 26	- 21

Note. Correlation values expected low are underlined, those expected high are in bold.
Personality disorders: HIS = histrionic; NAR = narcissistic; AVD = avoidant; DEP = dependent; OBC = obsessive-compulsive.
* adjusted $p < .001$

Table 2 (cont.)

	PAR	SCH	SCT	ANT	BOR
Agreeableness	*- 37**	*- 28**	*- 35**	*- 28**	*- 35**
Trust	- 43*	- 34*	- 37*	- 21	- 38*
Straightforward	- 18	- 05	- 13	- 39*	- 18
Altruism	- 28*	- 39*	- 39*	- 14	- 21
Compliance	- 26	- 03	- 22	- 26	- 31*
Modesty	03	04	09	- 01	04
Tender-Minded	- 20	- 20	- 27	- 17	- 18
Conscientiousness	*- 29**	*- 15*	*- 31**	*- 32**	*- 42**
Competence	- 24	- 30*	- 35*	- 22	- 35*
Order	- 01	- 02	- 04	- 19	- 13
Dutifulness	- 18	- 08	- 21	- 18	- 23
Achievement	- 21	- 14	- 17	- 19	- 28
Self-Discipline	- 35*	- 18	- 40*	- 26	- 46*
Deliberation	- 30*	04	- 19	- 39*	- 39*

Note. Correlation values expected to be low are underlined, those expected to be high are in bold.
Personality disorders: PAR = paranoid; SCH = schizoid; SCT = schizotypal; ANT = antisocial; BOR = borderline.
* adjusted $p < .001$

Table 2 (cont.)

	HIS	NAR	AVD	DEP	OBC
Agreeableness	*- 27*	*- 48**	*- 23*	*- 13*	*- 33**
Trust	**- 12**	- 18	- 41*	**- 13**	- 18
Straightforward	- 34*	- 44*	- 02	- 17	- 13
Altruism	- 07	- 29*	- 36*	**- 16**	- 24
Compliance	- 32*	- 38*	- 001	**10**	- 21
Modesty	- 16	- 48*	18	**16**	- 15
Tender-Minded	- 06	- 33*	- 16	- 15	- 20
Conscientiousness	*- 18*	*- 03*	*- 21*	*- 42**	*- 05*
Competence	- 002	15	- 35*	- 51*	**- 05**
Order	- 14	- 07	02	- 11	**- 05**
Dutifulness	- 15	- 08	- 03	- 21	**- 02**
Achievement	- 01	**07**	- 25	- 38*	**16**
Self-Discipline	- 24	- 13	- 29*	- 42*	- 22
Deliberation	- 27	- 12	01	- 18	- 002

Note. Correlation values expected to be low are underlined, those expected to be high are in bold.
Personality disorders: HIS = histrionic; NAR = narcissistic; AVD = avoidant; DEP = dependent; OBC = obsessive-compulsive.
* adjusted $p < .001$

Table 3

Correlations between the PDQ-4+ Scales and the facets of the NEO PI-R

	PAR	SZD	SZT	HIS	NAR
Neuroticism	*49**	*29**	*43**	*31**	*27*
Anxiousness	40*	12	**28***	28*	17
Angry hostility	**44***	23	31*	28*	**31***
Depressiveness	45*	32*	39*	**16**	12
Self-Conscious	27	21	**28***	**14**	**08**
Impulsivity	21	- 03	23	31*	15
Vulnerability	31*	36*	20	23	19
Extraversion	*- 22*	*- 54**	*- 11*	*18*	*- 06*
Warmth	-31*	- 46*	- 15	**12**	- 20
Gregariousness	- 05	- 52*	- 19	**20**	- 04
Assertiveness	- 15	- 28*	- 17	14	01
Activity	- 12	- 35*	- 01	11	08
Excitement	04	- 29*	04	**16**	- 03
Positive Emotions	-36*	-42*	- 06	**09**	- 13
Openness	*- 17*	*- 21*	*17*	*09*	*- 05*
Fantasy	- 07	- 13	**11**	**02**	**01**
Aesthetic	- 15	- 19	15	11	- 05
Feelings	- 01	- 19	20	**24**	02
Actions	- 22	- 24	**- 24**	05	- 07
Ideas	- 08	- 07	**20**	- 06	- 07
Values	- 18	- 04	09	01	- 13

Note. Low scores on the PDQ-4+ indicate high level of pathology but were reversed for ease of interpretation. Correlation values expected low are underlined, those expected high are in bold. PDQ-4+ = Personality Disorder Questionnaire-4. Personality disorders: PAR = paranoid; SZD = schizoid; SZT = schizotypal; AS = antisocial; HIS = histrionic; NAR = narcissistic.
* adjusted $p < .001$

Table 3 (cont.)

	BOR	AS	AVD	DEP	OC
Neuroticism	*66**	*34**	*57**	*39**	*31**
Anxiousness	**53***	19	**41***	**28***	28*
Angry hostility	**50***	**23**	34*	18	29*
Depressiveness	**55***	24	**57***	33*	22
Self-Conscious	35*	09	**54***	**27**	25
Impulsivity	**40***	31*	14	06	19
Vulnerability	**55***	20	**53***	**55***	23
Extraversion	*-17*	*22*	*- 45**	*- 26*	*20*
Warmth	- 21	01	- 31*	**- 15**	- 13
Gregariousness	03	27	<u>- 27*</u>	- 04	- 22
Assertiveness	- 10	09	<u>- 40*</u>	<u>- 29*</u>	**- 18**
Activity	- 16	05	- 34*	- 26	- 14
Excitement	06	**39***	<u>- 24</u>	- 18	- 03
Positive Emotions	- 34*	- 04	- 31*	- 23	- 08
Openness	*07*	*24*	*27*	*28*	*- 04*
Fantasy	- 14	12	- 16	- 19	02
Aesthetic	- 08	06	- 12	- 15	03
Feelings	07	19	- 06	- 14	08
Actions	- 08	28	-32*	- 23	- 22
Ideas	- 17	12	- 20	- 23	- 07
Values	- 08	12	- 19	- 18	<u>04</u>

Note. Low scores on the PDQ-4+ indicate high level of pathology but were reversed for ease of interpretation.
Correlation values expected low are underlined, those expected high are in bold.
PDQ-4+ = Personality Disorder Questionnaire-4. Personality disorders: BOR = borderline; AS = antisocial; AVD = avoidant; DEP = dependent; OC = obsessive-compulsive.
* adjusted $p < .001$

Table 3 (continued)

	PAR	SZD	SZT	HIS	NAR
Agreeableness	*-41 **	*- 17*	*- 15*	*- 23*	*- 45**
Trust	- 58*	- 33*	- 28*	**- 10**	- 40*
Straightforward	- 16	10	- 09	- 13	- 26
Altruism	- 21	- 28*	- 06	- 02	- 28
Compliance	- 28*	- 04	- 16	- 29*	- 29*
Modesty	01	12	003	- 21	- 30*
Tender-Minded	- 18	- 15	- 05	- 02	- 23
Conscientiousness	*- 23*	*- 21*	*- 08*	*- 23*	*- 18*
Competence	- 20	- 33*	- 07	- 03	- 05
Order	- 01	04	11	- 17	02
Dutifulness	- 08	- 18	04	- 17	- 18
Achievement	- 15	- 21	- 06	- 06	**- 06**
Self-Discipline	- 30*	- 21	- 22	- 30*	- 24
Deliberation	- 23	- 06	- 14	- 24	- 26

Note. Low scores on the PDQ-4+ indicate high level of pathology but were reversed for ease of interpretation.
Correlation values expected low are underlined, those expected high are in bold.
PDQ-4+ = Personality Disorder Questionnaire-4. Personality disorders: PAR = paranoid; SZD = schizoid; SZT = schizotypal; HIS = histrionic; NAR = narcissistic.
* adjusted $p < .001$

Table 3 (cont.)

	BOR	AS	AVD	DEP	OC
Agreeableness	*- 37**	*- 11*	*- 17*	*- 09*	*- 24*
Trust	- 42*	- 16	- 33*	**- 15**	- 31*
Straightforward	- 20	- 22	- 05	- 10	- 01
Altruism	- 16	04	- 17	**- 15**	- 14
Compliance	- 35*	- 21	- 01	**08**	- 19
Modesty	03	- 03	20	**10**	- 07
Tender-Minded	- 14	003	- 08	- 03	05
Conscientiousness	*- 43**	*- 30**	*- 38**	*- 40**	*04*
Competence	- 32*	- 11	- 37*	- 37*	**- 04**
Order	- 11	- 27	- 07	- 12	**08**
Dutifulness	- 25	- 17	- 12	- 24	**04**
Achievement	- 25	- 12	- 35*	- 32*	**- 02**
Self-Discipline	- 47*	- 23	- 47*	- 43*	- 14
Deliberation	- 43*	- 45*	- 20	- 23	- 06

Note. Low scores on the PDQ-4+ indicate high level of pathology but were reversed for ease of interpretation.
Correlation values expected low are underlined, those expected high are in bold.
PDQ-4+ = Personality Disorder Questionnaire-4. Personality disorders: AS = antisocial; BOR = borderline; AVD = avoidant; DEP = dependent; OC = obsessive-compulsive.
* adjusted $p < .001$

Table 4

Correlations between OMNI PD scales & PDQ-4+ scales

	OMNI									
PDQ	PAR	SCH	SCT	ANT	BOR	HIS	NAR	AVD	DEP	OBC
PAR	**60***	32*	46*	27	48*	25	19	37*	23	38*
SZD	22	**44***	35*	03	27	- 15	- 13	40*	14	14
SZT	45*	25	**49***	15	38*	15	20	29*	08	32*
AS	24	- 06	07	**52***	39*	46*	29*	- 07	11	13
BOR	54*	23	39*	38*	**74***	43*	26	38*	42*	33*
HIS	26	- 09	11	14	35*	**59***	37*	12	20	19
NAR	41*	07	31*	22	33*	43*	**51***	19	16	28
AVD	39*	37*	40*	03	49*	10	01	**68***	47*	25
DEP	23	27	22	16	46*	15	08	37*	**61***	21
OC	17	21	09	- 09	21	18	13	28*	09	**36***

Note. Low scores on the PDQ-4+ indicate high level of pathology but were reversed for ease of interpretation.
Scores in bold represent convergent correlation coefficients.
* adjusted $p < 001$.

Table 5

Regression analyses for OMNI PD scales and NEO PI-R facets

Hypothesized values					Unhypothesized values						
PD scale	Tot R^2	ΔR^2	Standardized Beta Coefficients (Facets)		ΔR^2	Standardized Beta Coefficients (Facets)					
PAR	493	259	255 N2	-322 A1	235	374 N3	-218 O4				
SCH	561	339	-358 E2	-226 E6	222	441 N3	-288 A3	282 C4			
SCT	527	284	203 N1		243	464 N3	-345 A3	-223 A6	-281 C1	401 C4	-313 C5
ANT	494	323	-363 A2	-309 C6	171†	304 N5	-355 E6	-212 O2	223 O6		
BOR	607	484	238 N3		123†	-306 E6	-203 A2	-222 A5			

Note. † $p > .05$
All significant facets are significant at $p \leq .05$.
See Table 1 to decode abbreviations.

Table 5 (cont.)

Hypothesized values						Unhypothesized values				
OMNI PD scale	Total R^2	ΔR^2	Standardized Beta Coefficients (Facets)			ΔR^2	Standardized Beta Coefficients (Facets)			
HIS	454	220	293	285	-206	234	-288	-218	-265	
			E2	O3	A1		A2	A5	C5	
NAR	572	327	174	-395	-216	245	-218	-405	231	-364
			01	A5	A6		O5	A2	C1	C5
AVD	661	516	225	-269	-297	145	-285			
			N4	E2	E3		A3			
DEP	569	236	397	-210		333	269	-270	-331	-311
			N1	A3			N3	O5	A2	C1
OBC	489	137	-193	304		352	362	-278	-240	-309
			O6	C4			N3	O3	A6	C5

Note. † $p > .05$
All significant facets are significant at $p \leq .05$.
See Table 1 to decode abbreviations.

Table 6

Regression analyses for PDQ-4+ scales and NEO PI-R facets

Hypothesized values						Unhypothesized values				
PDQ-4 scale	Total R^2	ΔR^2	Standardized Beta Coefficients (Facets)			ΔR^2	Standardized Beta Coefficients (Facets)			
PAR	570	399	263	-481		171†	297	227	240	
			N3	A2			N3	E2	O5	
SCH	492	314	-368			179†	228			
			E2				O5			
SCT	480	309	339	-364		171†	-289			
			O5	A1			C5			
AS	444	367	305	-175	-354	077†				
			E5	A2	C6					
BOR	618	511	221	- 166	-165	107†	- 194			
			N6	A1	A4		A5			

Note. † $p > .05$
All significant facets are significant at $p \leq .05$.
See Table 1 to decode abbreviations.

Table 6 (cont.)

Hypothesized values							Unhypothesized values	
PDQ-4 scale	Total R^2	ΔR^2	Standardized Beta Coefficients (Facets)				ΔR^2	Standardized Beta Coefficients (Facets)
HIS	388	137	218	-267			252	-345
			O3	A1				A5
NAR	427	214	228	-267			213†	-310
			N2	A5				A1
AVD	600	491	226	189	-205	-186	109†	-221
			N3	N4	N6	E3		C5
DEP	416	198	264	- 206			218	-214 -285
			N1	A3				A2 C5
OC	338	113	-263	-286			225†	- 293
			A3	A4				E2

Note. † $p > .05$
All significant facets are significant at $p \leq .05$.
See Table 1 to decode abbreviations.

Curriculum Vitae

April 2004

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EDUCATIONAL HISTORY

Asbury College, Wilmore, Kentucky, 40390
August 1997-May 1999
Major: Psychology
Minor: Biology
University of Kentucky, Lexington, Kentucky
August 1999-May 2001
Major: Psychology
Minor: Biology
Degree: B. S. with departmental psychology honors
Honors Thesis: The effects of reboxetine on reinstatement of nicotine self-administration in rats (Chairperson: Michael T. Bardo, Ph.D.)
Morehead State University, Morehead, Kentucky 40351
August 2001-Current
Major: Clinical psychology
Thesis title: Personality disorders and the five-factor model: A subclinical approach (Chairperson: David Olson, Ph.D.)
University of Kentucky, Lexington, Kentucky
August 2003-Current
Major: Clinical psychology

TEACHING POSITIONS

Guest Lectures

Physiological Psychology (Fall 2001 & Spring 2002)
Psychology of Personality (Spring 2002)
Introduction to Psychology (Fall 2001 & Spring 2002)

Teaching Assistant

Physiological Psychology (Fall 2001 & Spring 2002, Dr. I. White)
Psychology of Personality (Spring 2002, Dr. D. Olson)
Introduction to Psychology (Fall 2001 & Spring 2002, Dr. I. White & Dr. D. Olson)
Intellectual Assessment (Fall 2002, Dr. D. Olson)
Adult Assessment (Spring 2003, Dr. S. Reilley)
Research in Personality (Fall 2003, Dr. D. Lynam)

PROFESSIONAL POSITIONS

Mental Health Associate, Eastern State Hospital, Lexington, Kentucky. Provisional, paid position. 1999-2001

Duties: Patient care including behavioral observation and intervention; patient education for daily living; primary care to varied populations (including geriatrics, mood disorders, personality disorders, schizophrenics and delusional disorders); medical and grooming assistance.

Supervisor: W. Reeder

Research Assistant, University of Kentucky, Part-time, paid position. 2000

Duties: Assisted in research on animal model of substance abuse. Familiarized with operant chambers. Learned and assisted in methods of self-administration in rats and animal surgeries. Analyzed data using SPSS. Graphed data using Microsoft Excel.

Supervisor: M. T. Bardo, Ph.D.

Research Assistant, University of Kentucky, Part-time, paid position. 2001

Duties: Assisted in the organization and distribution of professional manuscript reviews.

Supervisor: T. A. Widiger, Ph.D

Research Assistant, University of Kentucky, Part-time, paid position. 2001

Duties: Assisted in research on caregiving of family members of patients with Alzheimer's disease. Performed literature searches on Alzheimer's varying from etiology and treatment to styles of caregiving. Responsible for loading data in SPSS files and Microsoft Excel files. Participated in mass mailings and gathered materials for telephone interviews of caregivers and nursing facilities.

Supervisor: J. E. Gaugler, Ph.D.

Graduate Assistant, Morehead State University, Part-time, paid position. 2001-02
Duties: Assisted in Introduction to Psychology and Physiological Psychology classes. Responsible for proctoring exams, managing grades, guest lectures and running review sessions.
Supervisor: I. White, Ph.D.

Graduate Assistant, Morehead State University, Part-time, paid position 2002
Duties: Assisted in Introduction to Psychology, Psychology of Personality and Intellectual Assessment classes. Responsible for proctoring exams, managing grades, guest lectures, running review sessions and the demonstration and observation/evaluation of intellectual and achievement measures.
Supervisor: D. Olson, Ph.D.

Graduate Assistant, Morehead State University, Part-time, paid position 2003
Duties: Assisted in Adult Assessment class. Responsible for developing the personality profiles and psychosocial history of sample clients, demonstration and explanation of scoring measures and grading reaction papers and completed profiles.
Supervisor: S. Reilley, Ph.D.

Teaching Assistant, University of Kentucky, Part-time, paid position 2003
Duties: Taught the lab portion of Research in Personality course. Responsible for running a lab section that taught basic research method and design including the demonstration and explanation of creating valid measures of constructs, statistical analysis using SPSS, lecturing and facilitating group work. Also responsible for grading research papers, proctoring and grading exams and management of lab grades.
Supervisor: D. Lynam, Ph.D.

Research Assistant, University of Kentucky, Part-time, paid position 2004
Duties: Assisted in research determining the effectiveness of a sensation-seeking targeted approach for public service announcements regarding the negative consequences, resistance skills training, and normative education concerning marijuana usage in teenagers in two counties. Responsible for management and analysis of a large dataset. Also responsible for relevant literature review and presentation of analysis at bi-weekly lab meetings.
Supervisor: P. Palmgreen, Ph.D.

EDUCATIONAL POSITIONS

Research Assistant, University of Kentucky, Student researcher. 2000-01
Duties: Did an independent study project and senior honors thesis on nicotine self-administration in rats. Became proficient at methods of self-administration. Did literature reviews of articles on animal models of substance abuse and psychopharmacology.
Supervisor: M. T. Bardo, Ph.D.

Research Assistant, University of Kentucky, Student researcher. 2000-01
Duties: Assisted in the administration, analysis and publication presentation of a study concerned with the validity of a new measure of the five-factor model of personality. Responsible for gathering subject material, running human subjects and loading and analyzing their data.
Supervisor: T. A. Widiger, Ph.D.

Practicum Student, Eastern Kentucky Correctional Complex 2002
Duties: Completed a four hundred hour practicum at a medium-security male correctional institution. Supervised in intellectual and personality testing including WASI, MMPI-2, MCMI, Rorschach and M-FAST. Conducted two bi-weekly groups ("Coping with Anxiety" and "The Road Less Traveled"), individual therapy sessions and performed parole board evaluations and segregation reviews.
Supervisor: C. H. Morgan, Ph.D.

Intern Student, University Counseling Center, Morehead State University 2003
Duties: Completed approximately three hundred hours of graduate internship at the university counseling center at Morehead State University. Supervised in personality testing, primarily with the MCMI. Conducted individual therapy with nine students, created study skills worksheets, prepared a presentation on stress management, participated in weekly staffing and supervision and contributed to University awareness through Alcohol Screening Day and Child Abuse Awareness.
Supervisor: D. Olson, Ph.D.

Intern Student, Comprehensive Sex Offender Presentencing Evalution 2003
Duties: Completed approximately three hundred hours of graduate internship at the Comprehensive Sex Offender Presentencing Evaluation for the state of Kentucky by observing and participating in evaluations of convicted sex offenders on bond and in county jails throughout southeastern Kentucky. Supervised in intellectual and personality testing including Cognistat, Dementia Rating Scale, Thematic Apperception Test, House-Tree-Person Projective Drawings, Hare's Psychopathy Checklist-Revised, MnSOST,

Static-99, RRASOR and the North American Adult Reading Test. Observed and participated in weekly community-based Sex Offender Treatment groups. Guest facilitated four groups on anger management. Gathered information for presentation on an alternate measure of assessment of psychopathy for female offenders. Completed review of the literature regarding the assessment, evaluation, treatment and recidivism of this population.

Supervisor: N. Smith, Psy.D.

PROFESSIONAL MEMBERSHIPS & ACTIVITIES

Phi Beta Kappa (Student member, Spring 2001) University of Kentucky
Psi Chi National Honors Society (Student member, Spring 2000) University of Kentucky

HONORS/AWARDS

Undergraduate Research and Creativity Award, University of Kentucky. Reboxetine, a novel anti-depressant, used for smoking-cessation pharmacotherapy. $500. 2000-01.
Principal investigator: Michael T. Bardo, Ph.D.

Violence against women petit research grant, University of Kentucky. A dimensional model for typologies of male batterers (Account number 4072241). $5000. 2004-05.
Principal investigator: Stephanie N. Mullins-Sweatt
Supervisor: Thomas A. Widiger, Ph.D.

CONFERENCE PRESENTATIONS

Mullins, S. N.*, Rauhut, A. S., Dwoskin, L. P., and Bardo, M. T. Acute and chronic effects of reboxetine on nicotine self-administration in rats. Presented at the meeting of Kentucky Academy of Science (2000, November).

Mullins, S. N.*, Widiger, T. A., and Lynam, D. R. Personality disorders, maladaptive variants of personality traits: An expert consensus approach. Presented at the meeting of the National Conference for Undergraduate Research (2001, March).

Mullins, S. N.*, Rauhut, A. S., Dwoskin, L. P., and Bardo, M. T. Acute and chronic effects of reboxetine on nicotine self-administration in rats. Presented at the annual meeting of the Midwestern Psychological Association (2001, May).

Mullins-Sweatt, S. N.* & Olson, D. R. Personality disorders and the five-factor model: A subclinical approach. Presented at the annual meeting of the Kentucky Psychological Association (2003, October).

Mullins-Sweatt, S. N.*, Jamerson, J. E., Widiger, T. A., & Olson, D. R. Psychometric properties and implications of an abbreviated measure of the five-factor model. Presented at the annual meeting of the Association of Research in Personality (2004, January).

PUBLICATIONS

Rauhut, A.S., **Mullins, S.N.**, Dwoskin, L.P. & Bardo, M.T. (2002). Reboxetine: attenuation of intravenous nicotine self-administration in rats. *Journal of Pharmacology and Experimental Therapeutics, 303(2),* 664-72.

Widiger, T. A. & **Mullins, S. N.** (2003). Personality disorders. In A. Tasman, J. Kay, J. A. Lieberman & M. B. First (Eds.), Psychiatry, (vol. 2, 2nd ed., pp. 1603-1637). Philadelphia, PA: W. B. Saunders.

Widiger, T. A. & **Mullins-Sweatt, S. N.** (in press). Typology of maritally violent men. *Journal of Interpersonal Violence.*