Examining the Relationship Between Psychiatric Traits & Psychological Traits

Justine Fischer
Northeastern University
Abstract

Are there shared factors underlying psychological and psychiatric personality constructs? For example, is extraversion or openness linked to disorders of personality? This study aimed to look at the relationship between psychiatric traits, psychological traits, and impulsivity as self-reported by 84 non-psychiatrically ill participants. The Big Five psychological constructs, Extraversion, Openness, Agreeableness, Neuroticism, and Conscientiousness, are each divisible into 2 aspects. How these personality aspects correlate with psychiatric personality disorders viewed as continuously variable traits in a non-clinical sample may foster understanding of the underlying processes involved in personality and in mental illnesses.

We found that functional impulsivity was closely related to aspects of psychological personality constructs, whereas dysfunctional impulsivity was closely related to personality disorders. The findings also showed both positive and negative correlations between psychological traits and personality disorders. The relationship between psychological and psychiatric personality constructs has been studied in clinical samples, but less is known about the greater population. Prior research has also linked impulsivity to psychopathology. Investigating these links will allow us to better understand how basic mechanisms underlying personality and impulsivity contribute to mental illness.
Introduction

A person's personality shapes not only who they are, but also the actions that they take. For years, research has explored personalities and sought to categorize them, with much success. Many scales, tests and surveys exist and new ones are still being created today. This study aimed to look at the relationship between psychological traits, psychiatric traits and impulsivity on self-reported surveys. The surveys used were the Big Five Aspect Scales (BFAS, DeYoung et al., 2007), the Personality Diagnostic Questionnaire 4+ (PDQ4, Hyler et al., 1988) and the Dickman Impulsivity Inventory (DII, Dickman, 1990) (see Appendix A for descriptions of measurements found on all three surveys).

Over the past few years the Five-Factor Model of personality, also known as the Big Five, has become widely accepted as a comprehensive model of personality traits. McCrae and Costa (1992) identified five general domains: Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness. These broad domains serve as the basis for all of the Big Five personality questionnaires. Within each domain are smaller subscales of traits, known as the dual aspects. The aspects serve as the intermediaries between the domains and the smallest subscale of traits, which are known as the facets (Costa & McCrae, 1995). Each domain has two aspects and several facets. For example, neuroticism is the domain, volatility and withdrawal are the aspects and the facets are anxiety, hostility, depression, self-consciousness, impulsiveness, and vulnerability.

DeYoung, Peterson & Quilty (2007), used 75 facet scales and through factor analysis were able to produce 2-factor solutions (aspects) for the 15 facets in each domain. “Factor analysis indicated that each Big Five domain is divisible into two correlated aspects, subsuming multiple facets.” The aspects are: volatility & withdrawal for neuroticism; compassion & politeness for agreeableness; industriousness & orderliness for conscientiousness; enthusiasm & assertiveness for extraversion; and intellect and openness for openness. This correlation allowed for the construction of a 100-item measure of the 10 factors (called the Big Five Aspect Scale, BFAS), which DeYoung et al. (2007) then validated in a second sample. The study demonstrated that aspects represent an intermediate level between the broad domains and the numerous specific facets.

The Personality Diagnostic Questionnaire, PDQ4, (Hyler et al., 1988) is a 99-item True/False self-report questionnaire used to screen for the presence of a personality disorder. Item content corresponds directly to the criteria for the Diagnostic Statistical Manual for Mental Disorders-IV personality disorders: Paranoid, Schizoid, Schizotypal, Histrionic, Narcissistic, Borderline, Antisocial, Avoidant, Dependent, Obsessive Compulsive, Negativistic, and Depressive. Results from the survey are intended to provide an indication of key features of each personality disorder. Psychiatric constructs, similar to psychological constructs, are considered continuous traits: everybody has more or less tendencies toward them. The PDQ4 is thus a survey instrument that can parallel the self-reported, continuously valued Big Five instruments. Hyler et al. (1992), Fossati et al. (1998), and de Reus et al. (2013) have researched the PDQ4 within clinical populations, but research is less extensive on its usage within the general population.

Some prior work has been done to relate the psychological and psychiatric personality constructs. For example, Miller, Lyman, Widiger & Leukefeld (2001), examined whether the Five-Factor Model could adequately represent psychopathy and found that it in fact could. The study further demonstrated that personality disorders could be understood as extreme variants of common dimensions of personality, which highlights the utility of the Five-Factor Model in creating a descriptive structure of a persons’ personality. Miller, Reynolds, and Pilkonis (2004) demonstrated how Big Five domains map
Examining the Relationship Between Psychiatric Traits & Psychological Traits

onto personality disorders in two clinical samples. The study linked personality disorders to the Big 5 domains through use of clinical interviews instead of the PDQ4.

In 2004, Bollen & Wojciechowski showed that personality traits play a significant role in both subtypes of the eating disorder, Anorexia Nervosa. Findings showed that patients with Anorexia Nervosa, regardless of subtype, are more emotionally unstable and more prone to psychological distress than normal controls. This was demonstrated by the fact that all patients with Anorexia scored significantly lower on Conscientiousness than the control group (Bollen & Wojciechowski, 2004). Additionally, patients scored significantly higher on openness and neuroticism, and lower on the extraversion scale (Bollen & Wojciechowski, 2004).

Trull, Widiger, and Burr (2001) studied the relationship between the Five-Factor Model of personality and personality disorder symptomology. They used the Structured Interview for the Five-Factor Model (SIFFM), which is a 120 item semi-structured interview that assesses both adaptive and maladaptive features of the personality traits included in the Big Five. For personality disorder symptomology they used the PDQ-R and found that SIFFM domain and facet scores were significantly related to personality disorder symptomology. Most personality disorders were negatively related to SIFFM Extraversion and Conscientiousness, but they were positively related to Neuroticism (Trull et al., 2001). SIFFM Agreeableness and Openness demonstrated the greatest ability to differentiate between the individual personality disorders. Although a structured interview was used in this study to represent the Five-Factor Model, the research still underlines the utility of the Five-Factor Model in correlating with personality disorders by means of the PDQ-R.

Impulsivity is a personality characteristic examined from both psychological and psychiatric perspectives. It is the tendency to deliberate less than most people of equal ability before taking action (Dickman, 1990). Dickman created the Dickman Impulsivity Inventory (DII), which is a 23-question, true or false survey. The three studies he performed provided evidence for two types; functional impulsivity (FI) and dysfunctional impulsivity (DI). In the first study, functional and dysfunctional impulsivity emerged as distinct factors in an analysis of self-report impulsivity items (Dickman, 1990). The second and third studies demonstrated that the two types of impulsivity differ in their relation to personality traits and their cognitive correlates.

Dickman (1990) suggested that functional impulsivity is “responsible for the overall relationship between impulsivity and information processing and, at a broader level of analysis, between extraversion and information processing”. Functional impulsivity is the tendency to act with little forethought because of benefits resulting from such an approach to information processing (Dickman, 2000). “Dysfunctional impulsivity appears to represent the tendency to engage in rapid, error-prone information processing because of an inability to use a slower, more methodical approach” (Dickman, 1990). Smillie and Jackson (2006) investigated the relationship between functional and dysfunctional impulsivity and Reinforcement Sensitivity Theory. Using the Eysenck Personality Questionnaire Revised, they found that FI is most strongly related to Extraversion, while DI is most strongly related to psychoticism. Prior research has also shown that impulsivity has links with psychopathology (Gray et al., 1991).

The Current Study

Looking into the aspects of the Big Five factors of personality, self-reports on the PDQ4 and impulsivity type through the DII will shed light onto the relationship between personality aspects, personality disorders and decision-making. This study serves as the basis for future studies that may
Examining the Relationship Between Psychiatric Traits & Psychological Traits

look into personality predictors for personality disorders as well as personality predictors for impulsivity type.

I hypothesize a connection between personality aspects and self-reports on the PDQ4. I predict that the aspects of Neuroticism (Volatility and Withdrawal) and Conscientiousness (Industriousness and Orderliness) will be linked to higher self-reports of personality disorders, while the aspects for Extraversion (Enthusiasm and Assertiveness) and Openness (Intellect and Openness) will be linked to lower self-reports of personality disorders.

I expect to find that the aspects for Extraversion (Enthusiasm and Assertiveness) and Openness (Intellect and Openness) will be linked to functional impulsivity because people who express these traits strongly will make decisions based off of benefits, while the aspects for Neuroticism (Volatility and Withdrawal) will be linked to dysfunctional impulsivity because people who express these traits strongly will make rapid error-prone decisions. People who are neurotic tend to have low impulse control, so their impulsivity will take place in non-optimal situations, unlike those with functional impulsivity. I expect to see interrelations between personality aspects and impulsivity because a person’s personality drives their decision-making behaviors.

Methods

Participants:
Participants consisted of 89 adults from the Boston area, predominantly undergraduate students. Five participants were excluded for meeting exclusion criteria on the PDQ4 consisting of 2 catch questions. Participants were recruited via flyers around campus and were compensated at a rate of $15-20 for their visit. Sample sizes vary across correlations because some participants left items blank on the surveys used. Participants consisted of 35% males, and 65% females. Ages of the participants ranged from 18 to 54 years with a median age of 20 years.

Procedure:
The current study was part of a larger study that involved an anger perception task. Participants came into the laboratory and gave informed consent. After giving informed consent, participants completed the anger perception task (see, e.g., Lynn, Zhang, and Barrett, 2012). After the anger perception task, participants filled out the following six questionnaires, in order: the Social Status Ladder (Adler & Stewart, 2007), BFAS (DeYoung et al., 2007), PDQ4 (Hyler et al., 1988), Boredom Proneness Scale (Farmer & Sundberg, 1986), demographics (age, sex, etc.), and DII (Dickman, 1990). For the purpose of this study we will only be analyzing the BFAS, PDQ4, and the DII. Following the completion of these questionnaires, the participants were paid and dismissed.

Surveys:
The original DII is a two-response option, True or False. The Principal Investigator of the study, Dr. Lynn, adapted that into a 4-option scale. These options were 1= mostly or completely false, 2= somewhat false, 3=somewhat true, 4=mostly or completely true. An example item for functional impulsivity is “I would enjoy working at a job that required me to make a lot of split-second decisions”. An example of dysfunctional impulsivity is “Often, I don’t spend enough time thinking over a situation before I act”.

The BFAS is a 100-item survey that is a 5-option scale. The options are 1=Strongly Disagree, 3= Neither Agree Nor Disagree and 5= Strongly Agree. An example item is “Am not interested in other people’s problems”.


The PDQ4 is a 99 question true or false survey. An example of an item that corresponds to narcissistic personality disorder is “I often find myself thinking about how great a person I am, or will be”.

**Results**

We found significant correlations among subscales of all three instruments (Table 1). Our hypotheses were very similar to our findings. For example, functional impulsivity was correlated with the both of the aspects for Extraversion. Our results showed FI was correlated to obsessive-compulsive, avoidant, and depressive personality disorders and neuroticism (withdrawal), agreeableness (politeness), conscientiousness (industriousness), extraversion (enthusiasm), extraversion (assertiveness), and openness (intellect) on the BFAS. DI was heavily correlated to paranoid, histrionic, antisocial, narcissistic, negativistic, schizotypal, and depressive personality disorders, while on the BFAS, correlations were only to neuroticism (volatility) and conscientiousness (orderliness). It is interesting to note that FI was negatively correlated to the personality disorders, whereas DI was positively correlated to the personality disorders.

Many correlations among psychiatric and personality constructs were found. Both aspects for neuroticism and conscientiousness were highly correlated to high reports of personality disorders. Specifically, both of the aspects of neuroticism were found in borderline, avoidant, and narcissistic personality disorders and all correlations of neuroticism aspects and personality disorders were positive. Negative correlations were found between conscientiousness and personality disorders. Interestingly, our data showed no correlations between the orderliness aspect of conscientiousness and personality disorders (see Figure 1). However, negative correlations were seen between the industriousness aspect of conscientiousness and avoidant, negativistic, schizotypal, borderline, dependent and depressive personality disorders. No correlations were seen between the compassion aspect of agreeableness and personality disorders, however the aspect of politeness was negatively correlated to schizoid and schizotypal personality disorders.
<table>
<thead>
<tr>
<th></th>
<th>FL</th>
<th>DI</th>
<th>neur_w</th>
<th>neur_v</th>
<th>agree_c</th>
<th>agree_p</th>
<th>cons_i</th>
<th>cons_o</th>
<th>extr_e</th>
<th>extr_a</th>
<th>open_i</th>
<th>open_o</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functional Impulsivity</strong></td>
<td>r</td>
<td>p</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>.042</td>
<td>80</td>
<td></td>
<td>-085</td>
<td>.300**</td>
<td>.429**</td>
<td>.123</td>
<td>.341**</td>
<td>.650**</td>
<td>.608**</td>
<td>.000</td>
</tr>
<tr>
<td><strong>Dysfunctional Impulsivity</strong></td>
<td>r</td>
<td>p</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.012</td>
<td>.915</td>
<td>.78</td>
<td></td>
<td>.036</td>
<td>.060</td>
<td>.099</td>
<td>.019</td>
<td>.548</td>
<td>.315</td>
<td>.584</td>
<td>.674</td>
</tr>
<tr>
<td><strong>ParanoidPD</strong></td>
<td>r</td>
<td>p</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.016</td>
<td>.887</td>
<td>.78</td>
<td></td>
<td>.155</td>
<td>.060</td>
<td>.099</td>
<td>.582</td>
<td>.996</td>
<td>.729</td>
<td>.068</td>
<td>.229</td>
</tr>
<tr>
<td><strong>HistrionicPD</strong></td>
<td>r</td>
<td>p</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.071</td>
<td>.535</td>
<td>.78</td>
<td></td>
<td>.260</td>
<td>.049</td>
<td>.061</td>
<td>.049</td>
<td>.060</td>
<td>.689</td>
<td>.447</td>
<td>.389</td>
</tr>
<tr>
<td><strong>AntisocialPD</strong></td>
<td>r</td>
<td>p</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.085</td>
<td>.454</td>
<td>.78</td>
<td></td>
<td>.194</td>
<td>.110</td>
<td>.145</td>
<td>.076</td>
<td>.061</td>
<td>.069</td>
<td>.145</td>
<td>.151</td>
</tr>
<tr>
<td><strong>ObsessivePD</strong></td>
<td>r</td>
<td>p</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.243</td>
<td>.523</td>
<td>.78</td>
<td></td>
<td>.305**</td>
<td>.310</td>
<td>.334</td>
<td>.204</td>
<td>.373</td>
<td>.036</td>
<td>.980</td>
<td>.652</td>
</tr>
<tr>
<td><strong>PD</strong></td>
<td>r</td>
<td>p</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.130</td>
<td>.261</td>
<td>.78</td>
<td></td>
<td>.012</td>
<td>.059</td>
<td>.048</td>
<td>.560</td>
<td>.663</td>
<td>.003</td>
<td>.586</td>
<td>.013</td>
</tr>
<tr>
<td><strong>SchizoidPD</strong></td>
<td>r</td>
<td>p</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.053</td>
<td>.640</td>
<td>.78</td>
<td></td>
<td>.012</td>
<td>.059</td>
<td>.157</td>
<td>.048</td>
<td>.560</td>
<td>.663</td>
<td>.003</td>
<td>.586</td>
</tr>
<tr>
<td><strong>NarcissisticPD</strong></td>
<td>r</td>
<td>p</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.342</td>
<td>.900</td>
<td>.78</td>
<td></td>
<td>.014</td>
<td>.059</td>
<td>.048</td>
<td>.560</td>
<td>.663</td>
<td>.003</td>
<td>.586</td>
<td>.013</td>
</tr>
<tr>
<td><strong>AvoidantPD</strong></td>
<td>r</td>
<td>p</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.026</td>
<td>.900</td>
<td>.78</td>
<td></td>
<td>.004</td>
<td>.059</td>
<td>.048</td>
<td>.560</td>
<td>.663</td>
<td>.003</td>
<td>.586</td>
<td>.013</td>
</tr>
<tr>
<td><strong>NegativisticPD</strong></td>
<td>r</td>
<td>p</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.067</td>
<td>.559</td>
<td>.78</td>
<td></td>
<td>.038</td>
<td>.059</td>
<td>.048</td>
<td>.560</td>
<td>.663</td>
<td>.003</td>
<td>.586</td>
<td>.013</td>
</tr>
</tbody>
</table>
Examining the Relationship Between Psychiatric Traits & Psychological Traits

Table 1, continued.

<table>
<thead>
<tr>
<th></th>
<th>FI</th>
<th>DI</th>
<th>neur_w</th>
<th>neur_v</th>
<th>agree_c</th>
<th>agree_p</th>
<th>cons_i</th>
<th>cons_o</th>
<th>extr_e</th>
<th>extr_a</th>
<th>open_i</th>
<th>open_o</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizotypal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-.036</td>
<td>.265*</td>
<td>.199</td>
<td>.128</td>
<td>-.102</td>
<td>.238*</td>
<td>.280**</td>
<td>-.149</td>
<td>-.184</td>
<td>.039</td>
<td>-.163</td>
<td>.114</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>.754</td>
<td>.017</td>
<td>.071</td>
<td>.245</td>
<td>.354</td>
<td>.030</td>
<td>.010</td>
<td>.175</td>
<td>.093</td>
<td>.727</td>
<td>.138</td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>78</td>
<td>79</td>
<td>82</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td>Borderline</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>r</td>
<td>-.088</td>
<td>.216</td>
<td>.248*</td>
<td>.285**</td>
<td>.019</td>
<td>-.138</td>
<td>.347**</td>
<td>.001</td>
<td>.053</td>
<td>.036</td>
<td>-.084</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>.440</td>
<td>.055</td>
<td>.024</td>
<td>.009</td>
<td>.862</td>
<td>.209</td>
<td>.001</td>
<td>.992</td>
<td>.631</td>
<td>.744</td>
<td>.447</td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>78</td>
<td>79</td>
<td>82</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td>Dependent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>r</td>
<td>-.179</td>
<td>.013</td>
<td>.499**</td>
<td>.080</td>
<td>-.171</td>
<td>-.105</td>
<td>.340**</td>
<td>-.094</td>
<td>-.235*</td>
<td>-.270**</td>
<td>.307**</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>.115</td>
<td>.911</td>
<td>.000</td>
<td>.471</td>
<td>.119</td>
<td>.341</td>
<td>.002</td>
<td>.394</td>
<td>.031</td>
<td>.013</td>
<td>.004</td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>78</td>
<td>79</td>
<td>82</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
</tr>
<tr>
<td>Depressive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>r</td>
<td>-.246*</td>
<td>.284*</td>
<td>.478*</td>
<td>.477**</td>
<td>.157</td>
<td>-.061</td>
<td>.398**</td>
<td>.005</td>
<td>-.054</td>
<td>-.070</td>
<td>-.156</td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>.029</td>
<td>.011</td>
<td>.000</td>
<td>.000</td>
<td>.154</td>
<td>.580</td>
<td>.000</td>
<td>.965</td>
<td>.627</td>
<td>.529</td>
<td>.157</td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>78</td>
<td>79</td>
<td>82</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
<td>83</td>
</tr>
</tbody>
</table>

Note: FI = functional impulsivity; DI = dysfunctional impulsivity; neur_w = withdrawal; neur_v = volatility; agree_c = compassion; agree_p = politeness; cons_i = industriousness; cons_o = orderliness; extr_e = enthusiasm; extr_a = assertiveness; open_i = intellect; open_o = openness; PD = personality disorder, Green = positive correlation, Red = negative correlation.
Examining the Relationship Between Psychiatric Traits & Psychological Traits

Figure 1. Highlighting the utility of the dual-aspect approach to the Big Five personality domains, within conscientiousness, lower industriousness predicted lower depressiveness, while orderliness was not associated to depressiveness. Depressive values were randomly jittered around the integer for display purposes.

Discussion

Impulsivity can be examined from both psychological and psychiatric perspectives. Our results showed high correlations between DI and measures on the PDQ4, which is congruent with the results of Smillie & Jackson (2006), who found that DI is strongly related to psychoticism. Smillie & Jackson (2006) also showed FI to be strongly related to extraversion, which our results also demonstrate. Similarly, Jones & Paulhus (2011), found that “psychopathy was most closely associated with dysfunctional impulsivity”. The differences seen between functional and dysfunctional impulsivity highlight the varying underlying mechanisms involved. FI involves making rapid inaccurate performances in situations where it is optimal, while DI involves making rapid inaccurate performances in situations where it is not optimal (Dickman, 1990). FI is seen in optimal situations, so it would make sense that it corresponds more to personality aspects than to measures of personality disorders. Since DI is seen during non-optimal situations, it stands to reason that DI would be seen in people who score higher on measurements of personality disorders because their decision making is clouded by some of their thought processes and emotional instabilities.

Data from our study shows correlations between personality constructs and psychiatric constructs, as predicated. Trull et al. (2001) found that SIFFM neuroticism was “positively related to
most of the personality disorders, especially avoidant and borderline personality disorders”. Our data further supports this finding. People who are neurotic have a tendency to exhibit low impulse control as well as emotional instability, which could account for their higher self-reports of personality disorders. Bagby et al. (2005) found that the facets of neuroticism were correlated with avoidant personality disorder, but not with schizoid personality disorder, which is congruent with our results and is logical because the multiple facets make up the aspects.

Our results showed negative correlations between extraversion and personality disorders, similar to the results of Trull et al. (2001), which showed that “most disorders were negatively related to SIFFM extraversion (especially avoidant and schizoid)”. No positive correlations of extraversion and personality disorders were seen in our data. Avoidant, schizoid, obsessive compulsive and negativistic were correlated to the enthusiasm aspect of extraversion, but had no correlations to the assertiveness aspect. These findings demonstrate the functionality of the aspects over the domains. Both aspects of extraversion were negatively correlated with dependent personality disorder. This is most likely due to the function of extraversion itself, if someone is outgoing, energetic and assertive they will most likely not be dependent on others.

Similarly to Trull et al. (2011), our findings showed negative correlations between conscientiousness and personality disorders. The lack of correlations in our data between the orderliness aspect of conscientiousness and personality disorders, again, highlight the use of the big five aspects over the domains. The negative correlations seen between the industriousness aspect of conscientiousness and several personality disorders demonstrate that if someone is highly productive and has a good work ethic, they have low self-reports of those specific personality disorders.

Data from our study showed few correlations between the aspects of agreeableness and personality disorders. Miller et al. (2001) found that “psychopathy consists of very low scores on all facets of Agreeableness”. Our results show no correlations between the compassion aspect of agreeableness and personality disorders. However, the aspect of politeness was negatively correlated to schizoid, histrionic and schizotypal personality disorders. These personality disorders deal with the inability to maintain and establish healthy emotional relationships, including detachment from existing relationships and attention seeking behavior. Therefore, it appears that the more polite someone is, the lower his or her self-reports of schizoid, histrionic, and schizotypal personality disorders. Someone who is polite may be considerate and respectful in nature, which may help them stay attached in relationships or they may be too polite to not accept someone’s friendly advances, thereby forming a relationship unwillingly.

There are several limitations to this study, one of which being that this study was built off of a larger study, which involved an anger perception task. The self reported surveys were given to the participants after the task, which could have inadvertently affected their self-reports. For example, if they were angry or frustrated, they might’ve rated items differently then if they had been in a neutral state of valence and activation. The sample size of this study was 84 participants, so further research is needed to validate these findings with a larger sample size. Similarity between items on the PDQ4 and BFAS should also be examined as a potential cause of correlations.

Comorbidity within our sample could account for the clusters of correlations seen in Table 1. For example, Paranoid PD is significantly correlated to Histrionic PD (r=.332, p=.002) and Antisocial PD (r=.332, p=.002). All three of those PDs are positively correlated to dysfunctional impulsivity. It is possible that their comorbidity drives the correlation, however it is also possible that the underlying mechanisms of the disorders lead participants to act similarly during impulsive situations. Within our
sample, the industriousness aspect of conscientiousness and the enthusiasm aspect of extraversion are both negatively correlated to avoidant, negativistic and dependent PD and are also significantly correlated to each other ($r=.263$, $p=.015$), which may be a driving factor for the cluster of the correlations. It is also possible that specific personality disorders inherently utilize certain big five aspects in daily life, which could account for patterns seen in the table such as negativistic PD and avoidant PD both being negatively correlated to the industriousness aspect of conscientiousness and the enthusiasm aspect of extraversion. Both personality disorders may involve enthusiasm and industriousness as a part of the illness, hence driving the correlations. Principle component analysis could reveal more insight into the underlying mechanisms creating clusters of correlations. Lenzenweger et al. (2007) published personality disorder co-morbidity rates from a clinical sample of 5692 people. Those data could inform a more detailed analysis of data from the present study.

Conceptually, our findings make sense and support the notion that personality traits may demonstrate behavioral tendencies that resemble a specific personality disorder. Therefore, these personality disorders can be thought of as varying basic personality traits that are seen in the normal population. Results from this study may be used to cultivate research between psychological and psychiatric traits in the field of personality psychology. Better understanding of personality traits may yield insight as to how personality disorders develop and how better to treat them. Identifying how impulsivity maps onto personality disorders and personality traits will allow people to understand patterns in their decision-making and better adjust their thought process if they so wish.
Appendix A

DII:
According to Dickman (1990):

Dysfunctional Impulsivity - is the tendency to act with less forethought than most people of equal ability when this tendency is a source of difficulty; most previous work on impulsivity appears to have focused on this trait.
Functional Impulsivity - is the tendency to act with relatively little forethought when such a style is optimal.

PDQ4:
The Diagnostic and Statistical Manual of Mental Disorders provides brief descriptions of personality disorders:

Paranoid PD - a pattern of distrust and suspiciousness such that others’ motives are interpreted as malevolent
Histrionic PD – a pattern of excessive emotionality and attention seeking
Antisocial PD – a pattern of disregard for, and violation of, the rights of others
Obsessive-Compulsive PD – a pattern of preoccupation with orderliness, perfectionism, and control
Schizoid PD – a pattern of detachment from social relationships and a restricted range of emotional expression
Narcissistic PD – a pattern of grandiosity, need for admiration, and lack of empathy
Avoidant PD – a pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation
Negativistic PD – a pattern of negativistic attitudes to demands for adequate performance in social and occupational situations, known as passive-aggressive personality disorder
Schizotypal PD - a pattern of acute discomfort in close relationships, cognitive or perceptual distortions, and eccentricities of behavior
Borderline PD – a pattern of instability in interpersonal relationships, self-image, and affects, and marked impulsivity
Dependent PD – a pattern of submissive and clinging behavior related to an excessive need to be taken care of
Depressive PD – a personality disorder that has a pattern of depressive features and falls under personality disorder-not otherwise specified (PD-NOS)

BFAS
DeYoung et al. (2007) provided brief descriptions of the aspects they identified:

Extraversion - Assertiveness is related to agency, especially with respect to sociability, or dominance
Extraversion - Enthusiasm is related to friendliness, warmth, and gregariousness
Conscientiousness – Industriousness is related to purposefulness, efficiency and self-discipline
Conscientiousness – Orderliness is related to orderliness, conscientiousness and order
Agreeableness – Compassion is related warmth, sympathy and understanding
Agreeableness – Politeness is related to nurturance, cooperation and pleasantness
Examining the Relationship Between Psychiatric Traits & Psychological Traits

Neuroticism – Volatility is related to impulsiveness, stability, and angry hostility
Neuroticism – Withdrawal is related to depression, vulnerability and anxiety
Openness – Openness is related to ingenuity, ideas, and quickness
Openness – Intellect is related to fantasy, aesthetics and imagination
Examining the Relationship Between Psychiatric Traits & Psychological Traits

References


