Initial Examination of the English-Language Dimensional Personality Symptom Item Pool

by

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Abstract

Dimensional models of personality pathology present a promising approach to the assessment of maladaptive personality in adults and children (e.g., De Clercq, De Fruyt, & Widiger, 2009). In addition, recent findings show that some childhood maladaptive traits can be predictive of adulthood personality disorders (e.g., Mervielde, De Clercq, De Fruyt, & Van Leeuwen, 2005). The Dimensional Personality Symptom Item Pool (DIPSI) is a questionnaire designed to measure maladaptive lower and higher order traits in children and adolescents. This study aims to examine the DIPSI’s scales and to replicate several previous findings of maladaptive trait patterns in children. The results indicate that the DIPSI’s lower and higher order trait scales are high in reliability and show many of the trait relationships suggested by previous literature. A successful outcome of this study serves as the first step towards establishing the DIPSI as a valid and useful measure of personality pathology in children.
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Chapter 1
Introduction

Measuring personality in children has traditionally taken secondary role to measuring personality in adults. There are many reasons for this, including the fact that it may be easier to recruit adult participants, or theories asserting that personality does not fully develop until adulthood (Roberts, Wood, & Caspi, 2008). Only in the last two decades has studying personality in children become a research objective. Even with this relatively recent interest, there have been many interesting findings in the field. For example, it has been shown that children do display personality traits as well as individual trait differences, and that these traits are somewhat stable throughout development into adulthood (Roberts, Wood, & Caspi, 2008). In addition, in many adulthood personality disorders (PDs), the pathology can be traced back to specific maladaptive traits that the individual displayed earlier in life (eg. Crick, Murray-Close, & Woods, 2005; De Clercq, De Fruyt, Van Leeuwen, & Mervielde, 2006; Johansson, Kerr, & Andershed, 2005; Mervielde, De Clercq, De Fruyt, & Van Leeuwen, 2005; Rutter, Kim-Cohen, & Maughan, 2006). Through researching personality in children, it has also become apparent that although children and adults may share similar underlying trait structures, adult measures of personality should not be used for children and appropriate study methodology must be employed if accurate interpretability of the results is to be obtained. The Dimensional Personality Symptom Item Pool (DIPSI) is a new and promising measure of maladaptive personality traits designed for use in children and adolescents. The objective of this study was to administer the newly translated English-language DIPSI in a community sample, with the intention of examining the DIPSI’s scales with regards to their reliability as well as ability to replicate previously-published associations between childhood maladaptive traits.

1.1 Personality pathology and its classification

Personality disorders (PDs) are classified on Axis II of the Diagnostic and Statistical Manual of Mental Disorders (DSM) and are characterized by abnormal and pervasive thoughts, emotions, and behaviours (American Psychiatric Association, 2000). Although no current estimates exist for PD prevalence in the Canadian population, a 6-9% estimated prevalence for any PD was calculated for the United States in 1993 (Health Canada, 2002). Despite the high
prevalence of PDs, the classification of Axis II disorders is still under much discussion, mainly because the current diagnostic method has not proven to be completely satisfactory. A fairly recent trend showing promise, has been to use a multidimensional approach and classify Axis II disorders based on extreme scores on several universal personality traits, for example ones like those found in the Five Factor Model (FFM) (De Clercq, De Fruyt, & Widiger, 2009; McCrae, 2006; Widiger & Simonsen, 2005). In fact, many studies have found support for multidimensional approaches that use models comprised of four or five maladaptive trait factors (eg. De Clercq, De Fruyt, & Van Leeuwen, 2004; Johansson, Kerr, & Andershed, 2005; Tackett, Balsis, Oltmanns, & Krueger, 2009; Widiger, Trull, Clarkin, Sanderson, & Costa, 2002). The multidimensional approach may be particularly useful as it allows clinicians and researchers to focus on symptoms and traits of personality pathology from a broader, continuum-based view, and may lead to improved recognition and diagnosis of PDs than the current DSM-IV PD category-based diagnostic tools allow (Tackett et al., 2009; Widiger, Costa, & Samuel, 2006).

1.2 Lifelong continuum of personality pathology

According to the DSM-IV, it is not typical for diagnosis of Axis II disorders to be made in individuals younger than 18. However, pathological personality does not arise overnight. There are several risk factors associated with the development of PDs (Tackett, Balsis, Oltmanns, & Krueger, 2009). Childhood and adolescent personality traits in particular, have been shown to be predictive of development of adulthood PDs. For example, it has been proposed that Borderline PD has childhood precursors in impulsive internalizing trait symptoms (Paris, 2005) and childhood relational aggression (Crick, 1996; Crick, Murray-Close, & Woods, 2005). Johansson, Kerr and Andershed (2005) showed that retrospective reports of adult psychopaths cited more hyperactivity-impulsivity-attention problems, and/or conduct problems as children. Furthermore, Kasen and colleagues (1999) found that having adolescent PD symptoms increased the chance of having a young adulthood PD in the same cluster, as did presence of an adolescent Axis I disorder. These findings all point to the notion that while PDs may not yet be present in children and adolescents, the likelihood of PD development can be predicted to some degree through examining personality and maladaptive traits displayed by children and adolescents. Furthermore, this likelihood may therefore be reduced with timely diagnosis and resolution of
childhood maladaptive personality traits, for which, a more complete understanding of developmental aspects of PDs needs to be obtained.

1.3 Measuring childhood personality

While studying the relationship between childhood personality traits and later-life personality pathology is an important first step towards reducing incidence of PDs, one major setback in the field is that many currently-published studies are flawed in their design and employment of poor measures of childhood personality. Some studies use retrospective reports of personality traits (e.g., Johansson, Kerr, & Andershed, 2005). One problem with the retrospective method however, is that it only establishes a one-way relationship between a PD and its precursors, which is not entirely useful for predicting the likelihood of developing a PD based on current childhood symptoms. Another problem with this approach is recall bias, as individuals who went on to develop a PD may ascribe more significance to their childhood symptoms. Selection of proper measurement tools is another important aspect of childhood personality pathology assessment. Westen, Shedler, Durrett, Glass, and Martens (2003) concluded that although personality pathology resembling that of adults does exist in adolescents, employing Axis II diagnostic criteria of DSM-IV actually over-diagnoses avoidant and antisocial PDs, pointing to the fact that adult PD diagnostic criteria may not be appropriate for classification of PDs in adolescents. Currently, there is a need for development of quality bottom-up measures of childhood personality pathology that are capable of surveying a range of maladaptive traits and that can aid further cementation of the link between childhood personality pathology and adult PDs. The Dimensional Personality Symptom Item Pool (DIPSI) is one such measure.

1.4 Dimensional Personality Symptom Item Pool

The Dimensional Personality Symptom Item Pool (DIPSI) is a questionnaire measure that aims to evaluate maladaptive traits in children and youth aged 6-17. Some of these traits are indicative of childhood personality pathologies and have been shown to be predictive of future PDs, while the presence of others may signify currently present problems.
The instrument was developed in a sample of children using top down and bottom up strategies. The design process involved compilation of a pool of 506 personality descriptors based on parent and teacher reports. This pool was subsequently reduced to 256 items composed of approximately 5 items describing each of the 44 content-based descriptor sets. The descriptors were created via top down approach, evaluating known symptoms of personality pathology in children. The 256 items were administered to a sample of mothers and the data collected was subjected to principle-axis factoring. In this step, items which were deemed inconsistent were removed, replaced, or moved to a more appropriate set. Additional item-level principal-axis factor analysis resulted in the four higher order factors which can be found in the finalized version of the questionnaire. Further items were dropped when they showed low loading or poor reliability, and the questionnaire was reorganized into a final structure of 172 items representing 27 unidimensional and homogenous personality facets.

The DIPSI is based on the dimensional model of personality pathology, and is similar to other multidimensional measures of childhood personality such as the HIPIC (De Clercq, De Fruyt, Van Leeuwen, & Mervielde, 2006). The finalized version of the DIPSI allows for assessment of the individual on 27 lower order facets, 4 higher order traits akin to those found in the HIPIC, DAPP-BQ, or SNAP (De Clercq, De Fruyt, Van Leeuwen, & Mervielde, 2006), or 2 superfactors reflecting Internalizing or Externalizing types of maladaptive traits. The original version of the DIPSI is in Dutch, but was translated into English for use in an English-speaking sample. Also, the original DIPSI was created for administration only in parents of children, but along with an English translation, a second version was created with items reworded for self-report use in adolescent participants. The newly-translated DIPSI is yet to have been tested in any sample.

The DIPSI aims to measure maladaptive traits which may be present in children and adolescents; however, the translated version has not yet been tested in any sample. One of the goals of this project is to identify several domains where childhood maladaptive traits have been previously studied and attempt to use the DIPSI to replicate some of these findings.

1.5 Achievement, risk-taking, and delinquent traits in childhood and adolescence
There are numerous negative effects that maladaptive traits can have on current and future personality. Traits associated with achievement and conscientiousness problems, risk taking, and delinquent personality are good examples of trait pathologies measured by the DIPSI that can have permeating effects on the child’s current and future success.

One recent study concluded that girls may be higher in achievement motivation than boys (Steinmayr & Spinath, 2008). The authors examined previous findings regarding girls’ easier time adjusting to school routines (Gipps, 1996, as cited in Steinmayr & Spinath, 2008), and found that when controlling for cognitive abilities, girls’ achievement was partly attributed to higher agreeableness and a lesser tendency to avoid work. There was also an effect of higher ability self-concepts on scholastic performance in both genders (Steinmayr & Spinath, 2008). While positive self-concept and presence of achievement motivation may have beneficial effects on academic performance, this effect may be mediated by affect (Wigfield & Karpathian, 1991), and negative affective traits like depression, anxiety, or social withdrawal may be related to academic disappointment and low self-esteem.

Risk taking, sensation-seeking, and impulsivity are also traits, maladaptive variants of which, may have broad effects on current and future functioning of children and adolescents. Presence of sensation-seeking traits and impulsivity has been linked to development of pathologies like alcoholism (Zuckerman & Kuhlman, 2000). In adolescents, it has been shown that lack of deliberation is related to negative risk-taking behaviours like unprotected sex, drug use, or shoplifting (Costa & McCrae, 1992, as cited in Zuckerman & Kuhlman, 2000). Further research into this matter found impulsivity to be comprised of four factors related to the Five Factor Model. These factors were Urgency (related to the impulsiveness facet of Neuroticism), lack of Premeditation (related to the deliberation facet of Conscientiousness), lack of Perseverance (related to the self-discipline facet of Conscientiousness), and Sensation Seeking (related to the excitement seeking facet of Extraversion) (Whiteside & Lynam, 2001). D’Acremont and Van der Linden (2005) found that girls had higher scores for Urgency, while boys had higher scores for Sensation Seeking factors. The authors concluded that Urgency may be related to internalizing problems like emotion-regulation difficulties, risk of depression, or anxiety typical of girls, while the Sensation Seeking factor that scored higher in adolescent boys, may be more typical of boys’ behavior of engaging in more risk-taking behaviors like dangerous driving and boys being more frequently victims of accidents (D’Acremont & Van der Linden,
2005). The authors also concluded that the lack of Premeditation factor may be related to antisocial behavior, especially aggression (which may also be related Urgency) and the lack of Perseverance factor may be related to inattention or hyperactivity (D’Acremont & Van der Linden, 2005).

Although the general view is that risk-taking behavior and impulsivity is maladaptive, it may be that risk-taking behavior is a normal part of adolescence, and is only problematic when the child is exhibiting either, abnormally few, or too many risk-taking behaviours and traits. A study by Shedler and Block (1990) concluded that adolescents who abstained from risk-taking behaviours like drug experimentation were actually more tense, over controlled, socially timid, and had been fearful, anxious, and inhibited as children. Whereas, adolescents with very high and regular incidence of risky behavior were characterized as troubled, withdrawn, unhappy, and antisocial, and as children they had been insecure and emotionally distressed (Shedler & Block, 1990). Furthermore, Shapiro, Siegel, Scovill, and Hays (1998) found that girls’ risky behaviour was motivated by a preoccupation with personal needs and goal-orientation implying a conscientiousness and narcissism aspect to risk-taking behavior as opposed to simply presence of high impulsivity and lack of self control.

While the effects of many maladaptive traits are examined in children who are generally void of any serious personality pathologies, exploring maladaptive traits present in children and adolescents who are currently facing difficulties may also shed light on development of these traits not only in the pathological sample, but also in the general population. Steiner, Cauffman, and Duxburry (1999) found that juvenile delinquents showed associations between internalizing pathology, neuroticism traits, and violence. They also found an association between externalizing pathology, high impulsivity, low agreeableness, and severity of crimes. Another study showed girl offenders to have a greater incidence of post-traumatic stress disorder and psychopathology than boy offenders. Girls also displayed more internalizing pathology and scored higher on self-harm and intimacy problems than boys, who scored higher on suspiciousness and social avoidance (Krischer, Sevecke, Lehmkuhl, & Pukrop, 2007). The authors also found that girls but not boys showed association between emotional dysregulation, syndromes of social withdrawal, and anxious-depressive traits, as well as between inhibitedness, internalizing, and anxious-depressive traits. There was also a strong association between dissocial behavior and externalizing pathology in both genders, and boys’ emotional dysregulation was related to
physical problems. In another study, ter Laak et al. (2003) found that delinquent girls were less conscientious and more neurotic and open to experience with more crimes reported. Finally, Lynam et al. (2005) examined the relationship between adolescent psychopathy and personality traits in boys, and found that the pathology could be separated into two factors: one comprised of an association of selfishness, callousness, remorselessness and low agreeableness, and another, of an association between impulsive conduct problems, antisocial traits and socially deviant lifestyles with low agreeableness, low conscientiousness, and high neuroticism.

1.6 First testing of the English-language DIPSI

The focus of the present study is to examine the maladaptive trait scales measured by the DIPSI in a community sample of English speaking parents of children and adolescents. Particularly, the aim is to take the first step in establishing the English-language DIPSI as a well-designed and useful measure that can be employed for further assessment of childhood maladaptive personality traits. The hypotheses of this study are the following:

1.6.1 H1 – Internal scale consistency

The inter item correlations and reliability of lower order and higher order scales will be high and similar to those established in the Dutch-language DIPSI and presented in De Clercq, De Fruyt, Van Leeuwen, & Mervielde, 2006.

1.6.2 H2 – Achievement motivation and self-concept

In line with previous achievement motivation and self-concept findings, the parent rankings will exhibit significant correlations between Extreme Achievement Striving, Depressive Traits, Ineffective Coping, Lack of Self-Confidence, Distraction, Disorderliness, Withdrawn Traits and Hyperactive Traits in both genders, as well as between Extreme Achievement Striving, Distraction, Disagreeableness and Compulsivity traits in girls but not boys.

1.6.3 H3 – Impulsivity, risk-taking, and affect

Evidence suggests that impulsivity may be related to the Conscientiousness, Neuroticism, and Extraversion factors of the Five Factor Model, as well as aggression, anxiety, depression,
anti-social traits and other emotional distress in both genders, and goal oriented behavior, Conscientiousness and Neuroticism in girls. I expect that the relevant DIPSI scales will show a similar relationship. Specifically, I expect significant correlations between Impulsivity, Risk Taking, Extreme Achievement Striving, Irritable-Aggressive Traits, Narcissistic Traits, Anxious Traits, Insecure Attachment, Separation Anxiety, Shyness, Withdrawn Traits, Introversion, Compulsivity, and Emotional Instability in both genders. In addition, I expect that in girls but not boys, there will be significant correlations between Risk Taking, Impulsivity, Irritable-Aggressive Traits, Extreme Achievement Striving, and Affective Lability.

1.6.4 H4 – Maladaptive traits of delinquent behavior

Research shows that children and adolescents displaying delinquent behavior are generally high in antisocial, neurotic traits and low in conscientiousness, with some gender differences. I expect that in the community sample surveyed by the DIPSI, girls but not boys will show an association between Compulsivity, Emotional Instability, Withdrawn Traits, Anxious Traits, Depressive Traits, Affective Lability, Irritable-Aggressive Traits, and Ineffective Coping. On the other hand, I expect that boys but not girls will have associations between Emotional Instability, Compulsivity, Disagreeableness, Narcissistic Traits, Affective Lability, Irritable-aggressive Traits, Hyperactive Traits, Hyperexpressive Traits, Distraction, Risk Taking, and Lack of Empathy.

Chapter 2
Method

2.1 Participants

The sample represents a subset of families who participated in the Childhood Personality Across Cultures study and had completed the DIPSI. The participants for the main study were recruited through the Child Study Centre recruitment database, which includes information from parents who agreed to be contacted by the Psychology Department at the University of Toronto for participation in future studies. All participants were from the Greater Toronto Area and fluent in English. Participants were contacted via phone or in person, administered a possible four of a set of seven questionnaire measures, and were asked to return the completed questionnaires in
sealed envelopes ensuring privacy to the researchers either via mail or in person. All participants who mailed in their questionnaires were compensated with a gift voucher valued at ten dollars, those youth submitting the questionnaires in person received pizza.

There were two types of populations surveyed. The first were parents of children aged 6-17, who completed the questionnaires about their child (n=73). 86.3% of these respondents were mothers, and there were no step parent raters. The parent rated sample consisted of 61.6% girls. The second type of population surveyed was youth participants aged 11-17, who answered the questionnaires about themselves (n=82). Of these, 53.7% were girls. All children’s data was collected with their parents’ permission.

2.2 Measures

All participants included in this study completed either the adult or youth version of the DIPSI. The only difference between the two versions is the wording of the questions, either asking a parent to rate their child, or a child to rate themselves. Beyond the directive agent, the two versions of the questionnaire are identical in content. Besides the DIPSI, participants were also asked to complete a random selection of three other questionnaires taken from a population-appropriate pool of seven questionnaires. These questionnaires were not used in the present study and will not be discussed further.

Chapter 3
Results

A survey of the descriptive data pertaining to each of the lower order and higher order trait scales of parent and youth data is presented in table 1. All scales except for Lack of Empathy in the parent sample were within the normal range for skewness (<+-3) and kurtosis (<+-10) (Kline, 1998). Lack of Empathy in the parent sample was abnormally high in kurtosis (11.01, SE=0.555). Both, square root and ln transformations were effective at normalizing the scale. The ln transformed Lack of Empathy parents scale is the one that was used in the following analyses.

3.1 Parent ratings
3.1.1 Lower order trait correlations

Reliability testing showed that the twenty seven lower order traits had a mean Cronbach’s alpha of 0.805, ranging from 0.629 (Insecure Attachment) to 0.921 (Irritable-Aggressive Traits) for individual traits (see table 1 for full list). Correlational analyses of the twenty seven lower order traits were conducted, first for the entire dataset and then separated by gender.

A correlation matrix of the twenty seven lower order traits with data from both genders combined, showed that the each lower order trait was significantly correlated at p=0.01 or better with approximately seventeen of the twenty six other lower order traits. Three of the lower order traits had substantially less significant correlations. Separation Anxiety was significantly correlated with only five of the other twenty six traits, while Extreme Achievement Striving and Extreme Order were significantly correlated with seven traits each.

3.1.2 Higher order trait correlations

As proposed by the DIPSI’s hierarchical structure, the items on the instrument can also be combined into four higher order traits. When these were compiled in the parent rated data, the mean reliability was an average 0.923 alpha with a range of 0.855 (Compulsivity) to 0.969 (Disagreeableness) for individual traits (see table 1).

Correlations were computed to determine any significant relationships between the four higher order traits and then compared by gender (of target child, not respondent). Both male and female samples displayed predominantly the same pattern of significance, with the only exception being on the Compulsivity scale. In the female sample, Compulsivity was significantly correlated with Emotional Instability (r=0.298, p=0.01) but not Disagreeableness (r=0.249, n.s.), but in the male sample, Compulsivity was not significantly correlated with Emotional Instability (r=0.302, n.s.), but significantly correlated with Disagreeableness, albeit at the p=0.05 level (r=0.588, p=0.05). Refer to table 2 for the comparison.

3.2 Youth Ratings

3.2.1 Lower order trait correlations
Youth lower order traits had an average reliability of 0.808 Chronbach’s alpha, ranging from 0.656 (Separation Anxiety) to 0.899 (Ineffective Coping). Full results are presented in table 1. Correlations of the twenty seven lower order traits were compiled both for the general youth sample and then separated by gender.

The correlation matrix including data from both genders yielded an interesting pattern. The vast majority of the traits were significantly correlated with the other twenty six lower order traits at the significance of p=0.01. What is interesting to note, however, is that among the twenty seven lower order traits, two stood apart from the mass and showed notably less significant correlations with the other traits. Insecure Attachment was significantly correlated with nineteen of the other traits, and Extreme Order was significantly correlated with only thirteen of the other traits. To provide a reference point, the other twenty five traits were significantly correlated with approximately twenty four out of the twenty six other traits on average. Both the large amount of significant intercorrelations and the two traits that stood out from the rest were unexpected.

When the correlations of the youth data lower order trait scales were compared by gender, more interesting patterns arose. Unlike in the adult sample, where the majority of the lower order traits had similar significance patterns between male and female samples, in the youth data, gender differences were much more common. Extreme Achievement Striving had the most differences by gender (twelve in total) and was examined on its own in relation to the other twenty six lower order traits. This analysis showed that in girls, Extreme Achievement Striving was significantly correlated with Hypexpressive Traits (r=0.722, p=0.01), Impulsivity (r=0.496, p=0.01), Irritable-Aggressive Traits (r=0.527, p=0.01), Resistance (r=0.571, p=0.01), Lack of Empathy (r=0.616, p=0.01), Anxious Traits (r=0.668, p=0.01), Lack of Self-Confidence (r=0.452, p=0.01), Submissiveness (r=0.437, p=0.01), Ineffective Coping (r=0.566, p=0.01), Separation Anxiety (r=0.416, p=0.01), Depressive Traits (r=0.603, p=0.01), and Inflexibility (r=0.658, p=0.01); yet, none of these thirteen relationships were significant in the male sample. The significance of relationships between Extreme Achievement Striving and the remaining fourteen lower order traits was comparable between genders.

3.2.2 Higher order correlations

When higher order traits were surveyed in the youth sample, it was found that the reliability coefficients of these four higher order trait scales were even higher than those in the
parent sample. The mean Chronbach’s alpha for the four scales was 0.939, ranging from 0.904 (Compulsivity) to 0.973 (Disagreeableness) for specific traits. Further reliability information may be found in table 1.

Examining the gender differences in correlation patterns between the four higher order factors in the youth sample, it was found that while Disagreeableness was significantly correlated with the other three factors in the female sample (Emotional Instability r=0.807, p=0.01; Introversion r=0.674, p=0.01; Compulsivity r=0.607, p=0.01), in the male sample it was only significantly correlated with Emotional Instability (r=0.728, p=0.01) and Introversion (r=0.715, p=0.01), but not Compulsivity (r=0.294, n.s.). See table 2 for the correlation matrix of the four higher order traits separated by gender.

### 3.3 Achievement striving and self-concept

I examined the correlations between Extreme Achievement Striving, Depressive Traits, Ineffective Coping, Lack of Self-Confidence, Distraction, Disorderliness, Withdrawn Traits, and Hyperactive Traits in parent rankings of children of both genders. The results partially confirm the hypothesis that there is an association between these traits. Extreme Achievement Striving was only significantly correlated with Hyperactive Traits (r=0.440, p=0.01), Disagreeableness (r=0.365, p=0.01), and Compulsivity (r=0.864, r=0.01). Extreme Achievement Striving was not significantly correlated with Lack of Self-Confidence (r=0.039, n.s.), while Disagreeableness was (boys r=0.620, p=0.01; girls r=0.321, p=0.05). Next, I examined gender differences in the correlations between Extreme Achievement Striving, Distraction, Disagreeableness, and Compulsivity. Previous literature had suggested that in girls only, Extreme Achievement Striving would be negatively correlated with Distraction, Disagreeableness and positively with Compulsivity. The only difference seen between girls and boys was on the correlation between Disagreeableness and Compulsivity (r=0.249, n.s. in girls; r=0.588, p=0.01 in boys). These results were unexpected, and were re-examined using youth self-report data to verify for possible rater error. The youth data showed that the traits had more significant intercorrelations in girls than boys providing some support for the hypothesis. However, even in this sample, when specifically examining the correlations between Extreme Achievement Striving and the other traits, only its predicted relationship with Compulsivity was supported (r=0.302), albeit at the p=0.05 level. Also, there was a high and significant correlation between Achievement Striving
and Disagreeableness in girls ($r=0.689$, $p=0.01$) but not boys ($r=0.239$, n.s.), which could be indicative of a general relationship to Disagreeableness as opposed to the specifically negative one suggested by previous research findings.

### 3.4 Impulsivity and risk-taking behavior

Previous literature on adolescent risk taking and sensation-seeking behavior has suggested a relationship between Impulsivity, Risk Taking, Extreme Achievement Striving, Irritable-Aggressive Traits, Narcissistic Traits, Anxious Traits, Insecure Attachment, Separation Anxiety, Shyness, Withdrawn Traits, Introversion, Compulsivity, and Emotional Instability in both genders. The results showed that Impulsivity, Risk Taking, Extreme Achievement Striving, Narcissistic Traits, and Compulsivity were all significantly correlated with each other, and that Emotional Instability was significantly correlated with all of these except Extreme Achievement Striving, lending some support to the hypothesis. Another interesting finding was that Risk Taking and Narcissistic Traits had very similar patterns of correlation with the other traits but were only moderately but significantly correlated with each other ($r=0.475$, $p=0.01$).

I also expected to find a correlation between Risk Taking, Impulsivity, Irritable-Aggressive Traits, Extreme Achievement Striving and Affective Lability in girls but not boys. As seen in table 4, the only difference between boys and girls on the correlation patterns of these traits was on Risk Taking and Affective Lability, where in girls these two traits were significantly correlated ($r=0.577$, $p=0.01$), but were not in boys ($r=0.368$, n.s.). However, when the relationships were re-assessed in youth report data, the difference between boys and girls were much more in line with previous literature and the hypothesis. In the youth sample (not shown), all the traits were correlated in the girls’ sample as expected, while boys Extreme Achievement Striving was only significantly correlated with Risk Taking ($r=0.322$, $p=0.05$).

### 3.5 Maladaptive traits of delinquent behavior

Lastly, I examined correlations of maladaptive traits displayed by delinquent children. I surveyed gender differences in the associations between Compulsivity, Emotional Instability, Withdrawn Traits, Anxious Traits, Depressive Traits, Affective Lability, Irritable-Aggressive Traits, and Ineffective Coping as these were suggested to be more typical of girls. Meanwhile,
boys were expected to exhibit associations between Emotional Instability, Compulsivity, Disagreeableness, Narcissistic Traits, Affective Lability, Irritable-Aggressive Traits, Hyperactive Traits, Hyperexpressive Traits, Distraction, Risk Taking, and Lack of Empathy. Table 5 shows that the hypothesis regarding girls’ grouping of delinquent traits was not entirely supported. While affective traits like Emotional Instability, Depressive Traits, Ineffective Coping, and Affective Lability were mostly correlated with each other and the other traits surveyed, the correlational pattern found in girls’ data was not that different from the one found in the boys’.

The only major gender differences were seen in the relationship of Compulsivity to other traits, as in girls it was significantly correlated with Anxious Traits (r=0.400, p=0.01), Withdrawn Traits (r=0.303, p=0.05), Emotional Instability (r=0.398, p=0.01), and not significantly correlated with Ineffective Coping (r=0.213, n.s.), yet these relationships were not found in boys (Anxious Traits r=0.365, n.s.; Withdrawn Traits r=0.095, n.s.; Emotional Instability r=0.302, n.s.; Ineffective Coping r=0.406, p=0.05).

When I examined the traits expected to correlate in boys but not girls, I found another interesting relationship. While there were several differences between the gender correlation patterns, about half of these differences actually showed that the correlations were significant in girls but not in boys, opposing the hypothesis. For example, Lack of Empathy was not significantly correlated with Hyperactive Traits (r=0.374, n.s.) and Risk Taking (r=0.126, n.s.) in boys, but in girls these relationships were significant (Hyperactive Traits r=0.502, p=0.01; Risk Taking r=0.436, p=0.01).

Chapter 4
Discussion

This project had several main outcomes. The findings showed that the DIPSI’s trait scales all displayed high reliability similar to those found in the Dutch-language version of the questionnaire (De Clercq, De Fruyt, Van Leeuwen, & Mervielde, 2006) and there was some support for trait correlation patterns suggested by previous research. The implications of these findings are discussed, with the conclusion that the first steps toward establishing the DIPSI as a quality English-language measure of maladaptive personality traits in children has been successful.
4.1 All scales showed high reliability

In parent and youth report data, both lower and higher order scales showed high reliabilities, similar to those found in the original Dutch-language DIPSI (De Clercq, De Fruyt, Van Leeuwen, & Mervielde, 2006). Correlation matrices comprised of the total twenty seven lower order traits showed that many of the traits were intercorrelated. In the parent rated sample most traits were significantly correlated with approximately seventeen of the remaining traits. However, in the youth rated sample, the majority of lower order traits were significantly correlated with nearly all of the other lower order traits. While some intercorrelation is expected as there is bound to be some overlap between the types of maladaptive traits that the scales are measuring, the high intercorrelation pattern seen in the youth rated sample points to a possible problem with either the questionnaire or the sample. The DIPSI aims to measure a wide spectrum of maladaptive traits and a high intercorrelation could indicate that the scales may be redundant and substantially overlap. This problem can be further assessed by examining the higher order trait scale alphas, as the DIPSI’s hierarchical structure shows that the lower order trait scales load onto one of the four higher order factors. In the youth rated data, higher order trait reliability alphas ranged from 0.904 (Compulsivity) to 0.973 (Disagreeableness). In the parent rated sample, Disagreeableness also had the highest alpha reliability (0.969). The fact that the Disagreeableness reliability was so high in both samples points to the possible conclusion that the problem may lie not with the rater samples; but rather, either with redundancy of some items or scales that load onto the Disagreeableness factor, or with the large number of items that make up the Disagreeableness factor (John & Soto, 2007).

4.2 Are adolescents better raters of maladaptive personality than parents?

Youth raters may be more in touch with their internal states and feelings that are difficult to observe to outsiders such as those typical of Cluster A or C personality disorders (Klonsky, Oltmanns, & Turkheimer, 2002), but their age and inexperience with reading complicated items and accurately making judgements may reduce the validity of their ratings. In addition, self-report, particularly in adolescent samples, is plagued by possibilities for error as self-
representation biases may arise (Baker, Victor, Chambers, & Halverston, 2004). Parent observers, on the other hand, may be overly optimistic about their child’s negative attributes, be affected by gender bias, or provide inaccurate ratings because of their own personality pathology (Fergusson, Lynskey, & Horwood, 1993; Najman et al., 2000).

In the current sample, youth and parent raters were similar on correlational patterns of higher order traits but different on more internalized traits like Narcissism or Extreme Achievement Striving. This points to the notion that youth may actually be better raters of their maladaptive personality than their parents, at least when it comes to internalized traits. Unfortunately one limitation of this study was that the youth sample was comprised of children aged 11 to 17, while the parent rated sample included data on children aged 6 to 17, meaning that there is a possibility that the differences in ratings may have been due to age effects as opposed to just rater differences and therefore parent data was used for the analyses, unless otherwise stated.

4.3 Adolescent achievement striving

Girls and boys are generally believed to have different approaches toward academic and other types of goal achievement. Previous literature has suggests that girls’ achievement motivation is linked to agreeableness and a tendency to work (Steinmayr & Spinath, 2008), but that both genders show a link between self-concept, affect, and achievement (Wigfield & Karpathian, 1991). Current study results partially supported these notions. Examining gender differences, I found that girls exhibited a moderate correlation between Extreme Achievement Striving and Disagreeableness, contradicting previous findings linking achievement motivation primarily with agreeableness, or possibly, pointing to a general link between achievement motivation and agreeableness, whether adaptive or not. Neither boys nor girls showed any significant relationships between Extreme Achievement Striving and distractive traits, also contradicting the previously suggested notion girls display an association between achievement motivation and an ability to focus on work. Finally, the possibly mediating effect of negative affect was partially supported as I found that Extreme Achievement Striving was not significantly correlated with Lack of Self-Confidence, but Lack of Self-Confidence was in fact significantly correlated with negative affective traits like Ineffective Coping, Depressive Traits, and Disagreeableness. Of these traits, Disagreeableness was the only one significantly correlated
with Extreme Achievement Striving. While a negative relationship between Extreme Achievement Striving and the negative affective traits would have been supportive of the mediating effect, a lack of significant correlations signals to either lack of effect, or lack of opposite effect in the data.

To examine previous findings, some of the authors’ conclusions had to be re-worded in order to match them to the maladaptive traits surveyed by the DIPS (eg. “tendency to work” into Distraction). The fact that I obtained inconsistent results, points to the conclusion that examining achievement motivation via maladaptive traits may not be an effective strategy as some meaning may get lost in the adaptive-maladaptive conversion.

4.4 Risk-taking and goal orientation

While some risk-taking is a normal aspect of adolescence, too little or too much of risk-taking behavior can be considered maladaptive (Shedler & Block, 1990). Research examining risk-taking and impulsive behavior found that apart from these traits’ expected relationships to hyperactivity or inattention, impulsivity, risk-taking, and sensation seeking (D’Acremont & Van der Linden, 2005), these traits are also related to antisocial behavior in both genders, as well as goal oriented and self-focused traits in girls (Shapiro, Siegel, Scovill, & Hays, 1998). My results found support for a significant relationship between Risk Taking, Impulsivity, Irritable-Aggressive Traits, and Introversion. There was also support for the association between traits typical of risky behavior with Achievement Motivation, Compulsivity, and Narcissistic traits, particularly in boys. This finding points to the fact that risky behavior may be more reflective of self-centered goal orientation and fulfillment as opposed to just a lack of self control, but may not be limited to just girls. Furthermore, the parent sample did not support a girls-only relationship between Risk Taking, Impulsivity, Irritable-Aggressive Traits, and Extreme Achievement Striving as the correlation patterns between these traits were similar in boys and girls, while the youth sample did. Whether this was due to rater differences or another reason is difficult to determine, and this disparity must be examined closer in the future.

4.5 Delinquency traits in a community sample
Delinquent children and adolescents may display traits associated with aggression, destructive behavior, oppositional behavior, and status violations (Frick et al., 1993). However, research has shown that delinquent boys may have an association between poor affect, suspiciousness, and physical problems, while in girls, the delinquent pathology is more internalized (Krischer, Sevecke, Lehmkuhl, & Pukrop, 2007). When I examined the gender differences in DIPSI traits associated with delinquency in a community sample, the results obtained were inconsistent. I did not find a gender specific relationship between emotional dysregulation traits and hostility traits. I did however find that Irritable-Aggressive Traits was significantly correlated with traits typical of emotional problems in both boys and girls. The only major difference found between boys and girls was on the correlation between Compulsivity and several emotional affect traits which were related in girls but not in boys. Also contrary to expectation, correlations between traits encompassing neuroticism, compulsivity, and hostility were similar between boys and girls. One possible explanation for the lack of difference between boys and girls on this hypothesis may be due to population sampling. The literature on these relationships used adolescent participants who were current delinquents, in contrast to this study, which used a community sample that was not likely to have a high number of delinquent children. Therefore, it is possible that only delinquent populations exhibit gender differences in the types of associations between emotional dysregulation and hostile behavior that I examined.

4.6 General discussion and limitations

Obtained results showed support for many but not all of the previously-established associations between maladaptive traits. There are several possible reasons for this. Firstly, as previously mentioned, there may be sample effects present. The study data was collected from a community population sample of parents and youth within the Greater Toronto Area. Because some of the associations found in previous research were in abnormal populations, it is possible that those associations may not be present in children and adolescents who are within the average community population that the current study focused on.

Another possible limitation of this study may be the inability of the DIPSI to measure the specific traits, or tap into the same constructs that were being assessed by the measures exploring these traits in the other studies. As this was the DIPSI’s first use as an English-language measure of maladaptive traits in a large sample, the goal was to re-assess these previously found
relationships. The fact that not all relationships found in previous literature were replicated may mean that some of the DIPSI’s trait scales may need to be revised for improved generalizability. Lastly, it must be kept in mind that mere presence of maladaptive traits does not necessarily imply that the child will go on to develop a personality disorder. In fact, one negative aspect of measuring maladaptive personality traits in children and youth is that the results may leave the child with a stigma of a personality disorder while they do not actually have one, or may even go on to have one in the future. However, as possible therapeutic benefits cannot be reaped if these maladaptive traits are not properly evaluated, it is up to the clinicians and parents to use discretion when interpreting results obtained from measures like the DIPSI.

4.7 Future directions

Although the initial findings from this project point to the value of the DIPSI as a measure of maladaptive childhood personality, there are further developments which, once implemented, will serve to increase the instrument’s validity. One possible next step would be to conduct a confirmatory factor analysis to evaluate the hierarchical structure of the English-translated DIPSI in comparison to the original Dutch-language version. High similarity in hierarchical structures between the two versions would not only confirm successful translation of the measure, but would also be highly valuable in expanding the pool of research regarding the DIPSI, as findings pertaining to one of the versions will to some degree be generalizable to the other.

Once fully developed, there are many potential applications for a measure like the DIPSI. A study by Donnellan, Conger, and Burzette (2004) determined only moderate rank order stability of self-reported personality traits over seven years. Another study by Goodman (2001) showed moderate stability of youth self ratings on a psychopathology measure over 4-6 months. These findings beg the question – do youth participants hold unstable opinions of themselves and their behaviour, or are maladaptive personality traits that unstable? It is unclear whether the maladaptive traits measured by the DIPSI will be high in stability and what the measure’s test-retest reliability will be. An approach involving administrations of the measure 6 months apart may answer some of the questions posed by the Donnellan et al. (2004) and Goodman (2001) findings.
Another promising direction to take with the DIPSI may be to incorporate it in testing of a genetic heritability component of maladaptive personality. Studies like the one by Viding et al. (2005) have shown that there is a heritability component to callous-unemotional traits; however, at this point few other maladaptive traits have been examined in the context of genetics. A heritability study could be useful for learning more about the origin and development of maladaptive traits from a biological standpoint.

Finally, as the DIPSI is aimed at evaluating personality pathology, administering the measure in a clinical or at-risk sample and then comparing those results to ones obtained from other established measures of psychopathology could serve as the next step in determining the DIPSI’s efficacy at identifying and assessing childhood maladaptive personality traits in more specialized samples of children and adolescents.
References


Tables

Table 1 – Descriptive statistics and reliabilities for lower and higher order scales

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### Table 2 – Parent and youth higher order trait correlation gender differences

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<th>Male\Female</th>
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<th>Introversion</th>
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<td>.526**</td>
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<table>
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<td>Compulsivity</td>
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* p=0.05
** p=0.01
Table 3 - Achievement striving and self-confidence in parent ratings of children

<table>
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<tr>
<th>Male\Female</th>
<th>Hyperactive Traits</th>
<th>Distraction</th>
<th>Lack of Self-Confidence</th>
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* p=0.05  
** p=0.01
### Table 4 - Impulsivity and risk-taking traits in parent ratings of children

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<tr>
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</tr>
<tr>
<td>Extreme Achievement Striving</td>
<td>.286</td>
<td>.122</td>
<td>.630**</td>
<td>.649**</td>
<td>.132</td>
<td>.266</td>
<td>-.217</td>
<td>1</td>
<td>.343**</td>
<td>.876**</td>
</tr>
<tr>
<td>Emotional Instability</td>
<td>.624**</td>
<td>.831**</td>
<td>.370</td>
<td>.427*</td>
<td>.781**</td>
<td>.819**</td>
<td>.511**</td>
<td>.058</td>
<td>1</td>
<td>.398**</td>
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<tr>
<td>Compulsivity</td>
<td>.360</td>
<td>.337</td>
<td>.677**</td>
<td>.741**</td>
<td>.270</td>
<td>.365</td>
<td>.095</td>
<td>.863**</td>
<td>.302</td>
<td>1</td>
</tr>
</tbody>
</table>

* p=0.05  
** p=0.01
### Table 5 - Traits of delinquent behavior in parent ratings of children

|                      | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Female | Male\Footer