

TEACHER-RATED PERSONALITY TYPES IN MIDDLE CHILDHOOD:
PREDICTION OF PEER-REPORTED SOCIAL ADJUSTMENT

by

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(Under the Direction of A. Michele Lease)

ABSTRACT

Three primary objectives were proposed in the current study. The first objective was to identify a typology of personality based on teacher ratings of individuals in middle childhood. The second objective was to determine the extent to which the different personality types derived from the first objective exhibited differences in characteristics of social standing as reported by peers. Finally, the personality types were compared to multidimensional social status types found in previous research (Lease, Musgrove, & Axelrod, 2002; Lindstrom & Lease, 2005). Teacher ratings of children as measured by the Inventory of Child Individual Differences-Teacher Short Form (ICID-TS) were collected for 473 children between the ages of 9 and 12 in Georgia public schools Georgia. Additionally, peer nominations of social standing and self-reported aspects of friendships were obtained. Personality data were submitted to a combined method of cluster analysis. First, Ward's hierarchical agglomerative method of analysis was conducted to determine cluster centroids. Next, an iterative *k*-means procedure was used to assign group members to appropriate clusters. This process resulted in five personality clusters: Dysregulated, Resilient, Disagreeable, Average, and Overcontrolled. Next, the personality clusters were examined in relation to differences in social status variables. In general, the Dysregulated cluster

was viewed in a negative light by peers, the Resilient cluster was viewed positively, the Average and Overcontrolled clusters were perceived as neutral, and the Disagreeable cluster was associated with dominance and popularity, but was also disliked. Finally, the personality clusters were examined relative to social status types. Dysregulated individuals were associated with low status types, Resilient individuals were members of high status types, and the Average and Overcontrolled individuals were not more likely than expected by chance to be members of any particular social status type. Disagreeable children were rarely assigned to the Average social status type, but were more likely to be viewed by peers as Perceived Popular/Dominant, Disliked, or Low Status. These results extend theories of a typology of personality in children and elucidate associations between personality and social standing in peer groups.

INDEX WORDS: Cluster Analysis, Individual Differences, Middle Childhood, Personality, Social Status, Teacher Perceptions

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CHAPTER ONE

INTRODUCTION

Children's social status and relations in their peer group can have a significant impact on their well-being, happiness, and general life outcomes. Austin and Draper (1984) found a correlation between children's academic achievement and social status, with rejected (i.e., disliked) students receiving lower scores on standardized tests of achievement. Although neglected (i.e., overlooked) children tend to have positive academic profiles, rejected-aggressive children have much more negative academic profiles than other students (Wentzel & Asher, 1995). Neglected and rejected individuals are more likely to experience both externalizing (i.e., antisocial behaviors, delinquency, ADHD) and internalizing (i.e., anxiety, depression) symptoms than individuals with a favorable or positive social status among peers (Coie, Lochman, Terry, & Hyman, 1992; Hecht, Inderbitzen, & Bukowski, 1997; Hymel, Rubin, Rowden, & LeMare, 1990). Individuals with low peer-reported social status also can be viewed negatively by teachers. Rejected children are more often reported by teachers as disliked (by the teacher him/herself; Wentzel & Asher, 1995), less physically attractive, and more likely to act out than other students (Li, 1985).

If teachers and peers both view an individual in negative terms, one possible explanation is that the individual's reputation is not merely the result of a quality or dynamic of the classroom or social environment. Perhaps some qualities of the *individual* lead to both negative peer perceptions and unfavorable teacher impressions. An individual's behavioral and personality characteristics, such as aggression and social withdrawal, could impact not only

teacher perceptions, but also the degree to which children are accepted by peers (Newcomb, Bukowski, & Pattee, 1993).

The study of personality and temperament in adults and children allows for a systematic examination of the differences among people. Temperament consists of constitutionally-based, relatively enduring behavioral traits that dictate how an individual responds to his/her environment (Goldsmith et al., 1987; Rothbart & Derryberry, 2002). Personality, on the other hand, is a more inclusive construct initially thought to emerge in adolescence or early adulthood, and is related to consistent patterns of thoughts, behaviors, and emotions within an individual that differentiate him/her from others (Caspi et al., 2005; Shiner & Caspi, 2003). These two areas of research have traditionally been viewed as somewhat separate, with different foci and populations of interest, until researchers from the adult personality and child temperament traditions began discussing the continuities between these ways of conceptualizing individual differences (e.g., Halverson, Kohnstamm, & Martin, 1994). Presently, it is possible to conceptualize temperament as a developmental antecedent to personality and personality as a broader array of behavioral differences that are subsumed by temperament (Costa & McCrae, 2001; Graziano, Jensen-Campbell, & Sullivan-Logan, 1998).

Individual differences can be examined from either a variable-centered, dimensional approach or a person-centered, typological approach. The variable-centered approach focuses on differences between individuals on specific traits (Robins, John, & Caspi, 1998). Person-centered approaches examine the interplay among traits within an individual and attempt to group similar individuals into homogeneous groups (DiStefano & Kamphaus, 2006; Robins et al., 1998). Although several typologies of personality have been proposed, three personality types have emerged in many studies: resilient, overcontrolled, and undercontrolled (Asendorpf, Borkenau,

Ostendorf, & van Aken, 2001; Dubas, Janssens, & Vermulst, 2002; Robins, John, Caspi, Moffitt, & Stouthamer-Loeber, 1996). Resilient individuals are flexible, adaptable people who would be described as conscientious, agreeable, open to new ideas, extraverted, and emotionally stable (Robins et al., 1998). Overcontrolled individuals are generally less flexible than resilient, exercise control and constraint of their emotional responses, and might be described as agreeable but also neurotic (Robins et al., 1998). Like overcontrollers, people in the undercontrolled category also lack the behavioral response flexibility observed in resilient. However, they express emotions somewhat impulsively and with less control than the other two types. These individuals could be described as neurotic and not very agreeable, conscientious, or open to new ideas.

Individuals with different personality types are likely to be ascribed different levels of social status in their peer groups. From a multidimensional perspective, social status can be determined based on an individual's sociometric status (i.e., likability and level of being disliked), social dominance (i.e., amount of power and influence a person has over people and resources in the environment), and perceived popularity (i.e., level of popularity as defined by people in the group; Lease, Musgrove, & Axelrod, 2002). Cluster analyses of individuals using sociometric status, dominance, and perceived popularity variables have led to seven social status types (Lease, Musgrove, et al., 2002; Lindstrom & Lease, 2005). Examination of social status types from a personality perspective suggests that members of certain status types possess statistically significant differences in personality variables (e.g., High Status, Perceived Popular/Dominant and Well-Liked/Dominant types receive higher ratings of sociability than other status types; Lindstrom & Lease). Additionally, individuals assigned to the three broad personality types receive different levels of sociometric status (i.e., being well-liked or not well-

liked) and aggression/dominance (i.e., bullying others and being the victim of bullies) through peer nominations (Scholte, van Lieshout, de Wit, & van Aken, 2005). Although these characteristics are indicative of some aspects of social status, they are not synonymous with the multidimensional characteristics of social status described by Lease, Musgrove, et al. (2002) and Lindstrom and Lease (2005). Therefore direct conclusions cannot be drawn regarding the specific relationship between personality types and these multidimensional social status types.

The purpose of this dissertation is to identify personality correlates of social status in middle childhood. As an extension of the work of Lindstrom and Lease (2005) and Scholte et al. (2005), the specific aim is to investigate the extent of the association between teacher-rated personality and peer-nominated social status. Given the association between certain social status types and pathology/problem behaviors and between personality characteristics and life outcomes, a greater understanding of the relationship between personality and social status will provide insight into the association among these two constructs and adaptive and maladaptive outcomes.

CHAPTER TWO

LITERATURE REVIEW

For decades, researchers in the social sciences have sought to understand individual differences in emotions and behavior. In the adult literature, this has often taken the form of discussions of personality traits encompassing the broad array of differences in people's thinking, feeling, and behaving (Caspi et al., 2005). In the literature on children, temperament has been used most often to discuss differences among individuals. Temperament, or a consistent pattern of behavior that is present early in life (some would argue from birth), focuses primarily on the emotionality of behavior, although attentional phenomena and activity level are often included. It is thought to have a biological basis and has generally been used to describe individual differences among children (Shiner, 1998). Over the last decade and a half, researchers in adult personality and child temperament have come together to discuss the relationships between these two seemingly different conceptualizations of human individual differences (Halverson et al., 1994). Although consensus has not yet been reached, many researchers are beginning to see the relationships between early child temperament and later adult personality, and some postulate that markers of the structure of adult personality can be seen in children as young as 3 years of age (Halverson et al., 2003).

Child Temperament

Temperament has been defined in slightly different terms for decades by psychologists, physicians, and others. Thomas and Chess described temperament as “the stylistic component of behavior—that is, the *how* of behavior as differentiated from motivation, the *why* of behavior,

and abilities, the *what* of behavior” (Goldsmith et al., 1987, p. 508). Buss and Plomin, on the other hand, focus on the notion that temperament should be defined as a set of inherited traits that appear early in life (Goldsmith et al., 1987). Goldsmith describes temperament as individual differences in behavioral tendencies (rather than the actual occurrence of behavior) that are emotional in nature (Goldsmith et al., 1987). Finally, Rothbart and Derryberry (2002) define temperament as “constitutionally based individual differences in emotional and attentional reactivity and self-regulation, influenced over time by heredity and experience” (p. 19). From these definitions, it is possible to make some general statements about the nature of temperament. Temperament is a largely inborn difference that is at least partially biological in nature, differs among individuals, is observable early in life (perhaps at birth), is relatively stable throughout the life course, and relates to the behavioral and/or affective responses individuals make to environmental stimuli.

The developmental study of temperament in children was fostered most significantly by physicians Alexander Thomas and Stella Chess. Beginning in 1956, Thomas and Chess initiated the New York Longitudinal Study (NYLS), with 141 infants and their families, aimed at identifying the general styles of responding to stimuli that are present in all children (Shiner, 1998; Thomas & Chess, 1977; Thomas, Chess, Birch, Hertzog, & Korn, 1963). Analysis of parent interviews resulted in nine general aspects of behavior: (a) activity level; (b) rhythmicity; (c) approach/withdrawal; (d) adaptability; (e) threshold; (f) intensity; (g) mood; (h) distractibility; and (i) persistence. This line of research has been invaluable to the study of individual differences among children because it was the first of its kind to draw attention to the fact that differences were observable from infancy and that these differences were predictive of developmental issues later in life (e.g., mental illness; Caspi, 2000). However, the measurement

methods used were neither theory-driven nor subjected to sophisticated statistical procedures. Thus, other models of temperament based on theoretical foundations or statistical evidence have supported some of the nine components proposed by Thomas and Chess, while other models have combined or eliminated the nine temperament dimensions.

Rothbart and colleagues have proposed a three-factor model of temperament in children (e.g. Rothbart, 1989; Rothbart, Ahadi, & Hershey, 1994; Rothbart, Ahadi, Hershey, & Fisher, 2001; Rothbart & Posner, 2003). The factors included in this model are Surgency or Extraversion (a tendency toward positive emotionality and approach, positive anticipation, smiling and laughter, impulsivity, and high activity level, with a negative relationship to shyness), Negative Affectivity or Neuroticism (a propensity toward discomfort, shyness, fear, sadness, and anger or frustration, with a negative association with soothability), and Effortful Control or Constraint (high levels of inhibitory control, attentional focusing, perceptual sensitivity, and low-intensity, or non-risk taking, pleasure). Additionally, Ahadi and Rothbart (1994) suggested that affective and approach systems underlie many of the Big Five factors of personality, and Effortful Control plays a superordinate, regulatory role in the development and differentiation of personality characteristics across the lifespan.

One of the essential characteristics that distinguishes temperament from other descriptions of individual differences is the notion that temperament is constitutionally-based. Temperament is a relatively enduring, biological difference among individuals that is observable early in development and is highly influenced by heredity (Ahadi, Rothbart, & Ye, 1993; Buss & Plomin, 1975). Behavioral genetics estimates of the heritability of personality vary depending on the method used (e.g., monozygotic twin studies, dizygotic twin studies, adoption studies), with twin studies typically suggesting a higher estimate of genetic influence than adoption studies

(Plomin, Chipuer, & Loehlin, 1990). In parent ratings of temperament traits, monozygotic twins typically exhibit a higher correlation between temperament variables, and dizygotic twins show a small or even slightly negative correlation in temperament, potentially resulting from the contrasts and comparisons made between twins by parents (Goldsmith, Lemery, Buss, & Campos, 1999; Saudino, 2005). Researchers now suggest that the heritability estimate of temperament or personality is between approximately 20% and 60% (Caspi et al., 2005; Plomin et al., 1990; Saudino, 2005; Tellegen et al., 1988). Different patterns of heritability might exist for various aspects of temperament. For example, Goldsmith and Campos (1986) found evidence for a genetic component for aspects of temperament that were related to activity or negative responses (i.e., Activity Level, Distress to Novelty, and Distress to Limitations) but not for aspects of temperament with a positive valence (i.e., Smiling and Laughter, Soothability, Duration of Orienting). Although both positive and negative characteristics of temperament could be important from an evolutionary perspective, perhaps the more negative characteristics that would be associated with self-preservative behaviors, such as escaping a predator or seeking connection with a caregiver, would be more likely to be passed through genes. Positive characteristics might instead be taught through social interaction, rather than influenced as much by genetics.

In addition to having a genetic component, temperament is an enduring, relatively stable behavioral and affective response pattern. Aspects of temperament observed at a very young age have shown continuity across the lifespan into adolescence and adulthood. Although the level of absolute behaviors might change over time (e.g., a 3-year-old child might express frustration by throwing a temper tantrum, whereas it would be highly unlikely for an adult to respond in the same way), the relative rank-order position of individuals across traits shows moderate to high

stability over the lifespan (Caspi et al., 2003; Caspi et al., 2005; Deal, Halverson, Havill, & Martin, 2005). For example, test-retest correlations of rank-order stability of temperament traits were approximately .41 in childhood, .55 at age 30, and .70 between the ages of 50 and 70 (Fraley & Roberts, 2004 as cited in Caspi et al., 2005). Many have argued that temperament traits observed in childhood form the foundation and biological basis for personality observed in adults (Caspi, 1998; Halverson et al., 1994; Rothbart & Ahadi, 1994; Wachs, 1994).

Longitudinal studies, such as the Dunedin study in New Zealand (Caspi, 1998; Caspi, 2000; Caspi et al., 2003) and the Georgia Longitudinal Study (GLS) in the United States (Deal et al., 2005), allow examination of temperament traits in young children and their correlation with later personality variables. In the GLS, temperament dimensions of impulsivity and inhibition in preschool children exhibited shared variance with the Five Factor Model (FFM) of personality in adulthood (Deal et al., 2005). In the Dunedin study, individual temperament and personality dimensions, as well as five person-centered personality types, observed at age three were correlated with personality variables in adulthood (age 26), as well as important life outcomes, such as unemployment and divorce (Caspi, 2000; Caspi et al., 2003). Specific relationships among personality dimensions and types of life outcomes will be discussed in the sections pertaining to Linking Temperament and Personality in Children and Typologies of Personality.

Adult Personality

While research on the structure of child personality is still in the developing stages, adult personality researchers are moving toward a taxonomy of personality (Caspi et al., 2005). One of the most well-established models in this domain is the Big Five Model or the Five-Factor Model (FFM) of personality. Although several other models exist, consistent support has been found for the FFM comprised of the factors of Extraversion/Positive Emotionality, Neuroticism/Negative

Emotionality, Conscientiousness/Constraint, Agreeableness, and Openness to Experience/Intellect (Caspi et al., 2005; Digman, 1990). The first factor extracted in most factor analytic solutions is Extraversion, or Positive Emotionality as it is sometimes called, which is characterized by sociability, assertiveness, a cheerful disposition, high energy, and optimism (Costa & McCrae, 1992; Tellegen, 1985). This trait captures several aspects of interpersonal relationships. The second factor, Agreeableness, also deals with interpersonal relationships. However, it relates to altruism, empathy for others, and eagerness to help others (Costa & McCrae, 1992; Goldberg, 1981; Norman, 1963; Tupes & Christal, 1961, as cited in John, 1990). The third factor, Conscientiousness, is characterized by achievement orientation, dependability, and the ability to control impulses, and is associated with planning, organizing, and following through on assigned tasks (Costa & McCrae, 1992; Digman, 1990; Digman & Takemoto-Chock, 1981). Neuroticism (or its inverse, Emotional Stability), relates to a propensity for emotional stress and is associated with negative affect such as fear, anger, guilt and a diminished ability to cope with stress (Costa & McCrae, 1992). Finally, the fifth factor, Intellect or Openness to Experience, is characterized by creativity and imaginativeness, intellectual curiosity, cultural interest, and aesthetic curiosity, and is correlated with intelligence (Costa & McCrae, 1985; Costa & McCrae, 1992).

Five factor models of personality have been described at least since the time of Fiske (1949, as cited in Digman, 1990). At that time, researchers (e.g., Allport, Odbert, Cattell) were using the lexical approach to studying personality and attempting to describe individual differences by examining the different trait and descriptive terms in the English language (John, 1990). The rationale behind the lexical approach is that if a difference among people is important, it will be encoded in the language of those people (Goldberg, 1981). As a result, the

more important a trait is, the more words will be available in a language to describe it. However, simply listing all the personality terms in a language does not help describe differences among individuals, and it overlooks the notion that a smaller number of underlying traits might make up human personality. Fiske (1949, as cited in Digman, 1990) undertook the goal of identifying the constructs of personality and found a five-factor solution. Other researchers have also found five-factor solutions, although some of the labels given to the resulting factors differ from those of the traditional FFM (e.g., Surgency, Agreeableness, Dependability, Emotional Stability, and Culture [Tupes & Christal, 1961, as cited in Digman, 1990 and John, 1990]; Assertiveness, Likability, Emotionality, Intelligence, and Responsibility [Borgatta, 1964, as cited in Digman, 1990]). Despite the differences, however, these models bear a remarkable resemblance to the FFM presently used in personality research. Digman and Takemoto-Chock (1981) analyzed many earlier studies examining personality, including the work of Cattell and Fiske, and repeatedly found evidence for the five-factor solution of describing personality.

Other models of describing personality exist as well. Two well-known three-factor models are Eysenck and Eysenck's (1957, 1967, 1985) model and Tellegen's (1985) model. Eysenck and Eysenck's (1985) Psychoticism-Extraversion-Neuroticism (PEN) model focuses on three broad factors: Psychoticism (characterized by hostility, suspicion, aggression, egocentricism, impulsivity, and creativity), Extraversion (characterized by assertiveness, sensation seeking, peaceful interactions with others, a carefree and lively attitude, and dominance), and Neuroticism (characterized by anxiety, fear, withdrawal, depressed mood, shyness, guilt feelings, and irrationality). These individual differences are proposed to be the result of differences in brain structures and levels of arousal. For example, extraverts seek stimulation because the normal level of arousal in their brains is relatively low because they

are more sensitive to inhibitory potentials, whereas the inverse is proposed to be true of introverts (i.e., greater sensitivity to excitatory potentials; Eysenck & Eysenck, 1985). Tellegen's (1982) model also proposes three factors of personality; however these are labeled Positive Emotionality, Negative Emotionality, and Constraint. Each of these three higher-order factors subsumes several specific personality dimensions, and all can be assessed with Tellegen and Waller's (1994) Multidimensional Personality Questionnaire (MPQ). The broad factor of Positive Emotionality is made up of the specific traits of Well-Being, Social Potency, Achievement, and Social Closeness; Negative Emotionality is composed of Stress Reaction, Alienation, and Aggression; Constraint includes Control, Harm Avoidance, and Traditionalism (Caspi, 2000; John, 1990; Tellegen & Waller, 1994). Although these two 3-factor models of personality are conceived as separate and unique from the FFM, distinct similarities can be observed. For example, Eysenck's labels of Extraversion and Neuroticism match exactly with two of the factors of the FFM, and Psychoticism appears to include some aspects of Neuroticism, Extraversion, and negative aspects of Agreeableness (i.e., disagreeableness). In addition, Tellegen's factor of Positive Emotionality appears quite similar to the FFM factor of Extraversion, Negative Emotionality shares characteristics with Neuroticism, and Constraint includes several aspects of Conscientiousness. Thus, although other models of personality exist, the FFM provides more than adequate explanation for individual differences among adults.

Linking Temperament and Personality in Children

Given the continuity between child temperament and adult personality, several researchers have begun explaining individual differences in children in terms of personality and models of personality (e.g., Caspi et al., 2005; Halverson et al., 1994; Kohnstamm, Halverson, Mervielde, & Havill, 1998). This allows for exploration of individual differences across the

lifespan, rather than researching temperament and its various dimensions in young children and moving to personality descriptions in later childhood, adolescence, or adulthood. Many in the fields of both temperament and personality are beginning to see the links between these two once-separate conceptualizations of human individual differences. Several personality theorists propose that early temperament is the substrate from which personality later develops (e.g., Hartup & van Lieshout, 1995; Rothbart & Ahadi, 1994). Graziano et al. (1998) liken temperament to “the hard ice ball, around which the softer snowball of personality accumulates developmentally” (p. 1276), and Costa and McCrae (2001) suggest that temperament traits can subsume all personality domains of the Big Five. Furthermore, since many researchers in adult personality are beginning to reach consensus about the structure of personality (i.e., the FFM), this can provide greater clarity to developmental researchers for the constructs they are attempting to predict over time (Caspi et al., 2005). Perhaps adult personality researchers can begin to understand their field in terms of its childhood antecedents, and researchers in child and developmental personality will be able to conceptualize individual differences in children with an eye on adult personality structure (Shiner, 2006).

Research exploring traditional models of temperament have found similarities to the FFM of personality. For example, Martin, Wisenbaker, and Huttunen (1994) conducted a meta-analysis of studies assessing the nine NYLS dimensions. The study assessed parent, teacher, and self ratings of individuals at various ages from infancy to adulthood and factor analyzed the resulting ratings. When the factors were examined at the item level and compared to theories of child temperament, five general factors were found across studies, and two additional factors that did not fit as well with temperament theories were found in some studies. The five factors were Activity Level, Negative Emotionality, Task Persistence, Adaptability, and Inhibition, and the

additional factors were Biological Rhythmicity and Threshold. Although these labels differ from the typical factors identified as part of the FFM (i.e., Agreeableness, Openness, Conscientiousness, Neuroticism, Extroversion), one can see the similarities that these factors bear to the traditional personality model. Specifically, Activity Level could be an indicator of or a developmental antecedent to Extroversion; Task Persistence could be related to Conscientiousness; Adaptability could tap aspects of Agreeableness or, in low levels, tendencies toward Neuroticism; Negative Emotionality could signal Neuroticism or low Agreeableness; and Inhibition could be associated with Neuroticism or inversely related to Extroversion (Martin et al., 1994). In addition, positive aspects of Inhibition could be related to Conscientiousness (e.g., inhibiting a response incompatible with completing assigned tasks) or Agreeableness (e.g., inhibiting a response that could damage a social relationship). The factors of Biological Rhythmicity and Threshold do not clearly fit with the factors of the FFM, perhaps because they seem most appropriate for very young children (Martin et al., 1994). Behaviors associated with Rhythmicity or Threshold exhibited at a young age likely either become less observable or cease all together as children mature (e.g., crying in response to a soiled diaper). It is also possible that some temperament traits become associated with different factors with age. For example, the perceptual sensitivity associated with Threshold in infancy may develop into sensitivity to emotional stimuli in adulthood or adolescence and become associated with Neuroticism.

Another exploration of temperament from the perspective of the FFM of personality was conducted by Ahadi and Rothbart (1994). They proposed that affective and approach systems underlie many of the Big Five factors of personality, and Effortful Control plays a superordinate, regulatory role in the development and differentiation of personality characteristics across the lifespan. In general, approach-related behaviors in infancy and early childhood are associated

with the development of Extraversion, negative affectivity and low approach tendencies relate to later Neuroticism, effortful control of a tendency toward anger/frustration may establish the foundation for Agreeableness, and effortful control in general could relate to the self-regulatory components essential in the Conscientiousness factor. In all of these factors, Ahadi and Rothbart (1994) suggest that Effortful Control allows the individual to regulate approach and affect, and it therefore affects development of all aspects of later personality.

Factor analytic studies of ratings of personality characteristics in children have repeatedly found structure similar to the FFM of personality. Halverson et al. (2003) found that parent ratings of child personality resulted in 15 mid-level scales, as well as five higher order factors of personality that are consistent with the FFM. These findings suggest that children express developmental markers for the FFM of personality observed in adults (Halverson et al., 2003). To determine if ratings by people observing behavior in different contexts with different environmental expectations could fit the FFM of personality in children, Mervielde, Buyst, and De Fruyt (1995) factor analyzed teacher ratings of personality using an instrument constructed from the Big Five theoretical framework. Statistical analyses indicated that teacher ratings consistently resulted in at least three of the Big Five factors of personality. However, teacher ratings of Openness, Intellect, and Conscientiousness loaded onto one, two and three factors depending on the number of factors extracted in the total solution, and items theorized to measure these three constructs loaded onto factors differently depending upon the age of the child.

Multiple Informants of Children's Behavior

When collecting data regarding the psychological, behavioral, and social functioning of children, several sources can be used. Common sources include parents, siblings, teachers,

mental health care workers, peers, and the child him/herself. Each of these observers interacts with the child in potentially different ways and in different settings, therefore they might have access to different behaviors and behavior patterns. Although one way to interpret differences in observations among informants would be to question the reliability of the observations, perhaps a more appropriate interpretation would be that these somewhat divergent appraisals pertain more to the different settings of interaction, behaviors accessible in these settings, and norms and interpretations of behaviors across informants (Achenbach, McConaughy, & Howell, 1987). In general, observers who see a child in the same or highly similar settings (e.g., parents at home, teachers and others at school) produce more similar ratings than observers who interact with the child in different settings (Achenbach et al., 1987). For example, in their extensive meta-analysis of ratings of parents, teachers and other informants, Achenbach et al. (1987) found a mean correlation of .60 between informants in the same setting (Pearson r s ranging from .54 for mental health care workers to .64 for teachers), whereas the mean correlation between informants in different settings (e.g., home and school, school and clinic) was .28 (ranging from .24 between parents and mental health care workers to .42 between teachers and classroom observers). In addition, informants were more consistent in rating behaviors of 6-11 year old children than 12-19 year old adolescents ($r = .51$ for ages 6-11; $r = .41$ for ages 12-18, $p < .0001$), and raters provided more consistent ratings for undercontrolled behaviors (e.g., hostile/aggressive, hyperactive/distractible, anti-social, bullying, anger, etc.) than overcontrolled behaviors (e.g., anxiety, depression, withdrawal, fearful, neurotic, etc.) ($r = .41$ for undercontrolled behaviors; $r = .32$ for overcontrolled behaviors, $p < .0001$).

Other studies have replicated the finding that parents and teachers are generally not as attuned at correctly identifying overcontrolled, or internalizing, behaviors. In one study, parents

and teachers did not report differences among children assigned to different behavioral adjustment types based on self-report except for children in the most severe behavior problem types (Kamphaus et al., 2003) Even in these cases, parents and teachers identified only externalizing problems among these children (e.g., aggression, attention problems, hyperactivity). Peers, on the other hand, ascribed different levels of social status among the behavioral adjustment groups and reported different levels of anxious/shy and sad/unhappy tendencies consistent with self-reported internalizing problems (Kamphaus et al.). For example, individuals assigned to a Low Self-Esteem cluster based on self-report were considered by peers to be anxious and shy, individuals in the Low Self-Reliance cluster were considered slightly uncooperative and not self-confident, and individuals in the Internalizing cluster were seen as odd and too sensitive, anxious and unhappy, and not very well-liked or popular (Kamphaus et al.).

In studies of children and adolescents, outside observers (e.g., teachers, parents, peers) often have higher concordance rates on measures of social, emotional, and behavioral functioning than the concordance rate between self and other. In the Achenbach et al. (1987) meta-analysis, peer ratings and nominations, typically obtained through sociometric methods, showed stronger agreement with teacher ratings ($r = .44$) than with self-report ($r = .26$). In another study (Malloy, Yaras, Montvilo, & Sugarman, 1996), peers and teachers had higher rates of agreement across all dimensions (i.e., perceived academic achievement, comparative characteristics [i.e., strength and attractiveness compared to other students], social characteristics [i.e., popularity, number of friendships], overt behaviors, and emotional characteristics) than either informant had with self-report. Agreement between self-report and peer report/nomination tended to increase, however, with age throughout middle childhood and was generally stronger

on measures of “observable behavioral characteristics than for more inferential and unobservable psychological characteristics” (Malloy et al., 1996, p. 697). In a multi-trait multi-method examination of adolescent personality traits, teachers and peers achieved greater concordance rates with each other than either group of informants did with self-report (Baker, Victor, Chambers, & Halverson, 2004). Correlations between teachers and peers on each of the Big Five traits ranged from .42 (Agreeableness) to .72 (Openness), whereas correlations between teachers and self-report ranged from .15 (Emotional Stability) to .57 (Openness) and between peers and self-report ranged from .28 (Emotional Stability) to .54 (Openness; Baker et al., 2004). However, most correlations between peers and self-report ranged from .28 to .33 (Baker et al., 2004). The low rate of agreement between self-report and report from others might be the result of differences in internal states that are not readily observable by those outside of the individual (Rothbart, Ahadi, & Evans, 2000) or a bias in self-report resulting from comparing oneself to accessible others when responding to behavior and psychological items (Schwarz, 1999).

Typologies of Personality

The study of personality, like many areas of psychology and the social sciences, can be approached from both a dimensional, or variable-centered perspective, and a typological, or person-centered perspective. Dimensional studies focus on differences between individuals with respect to specific variables, such as sociability, likability, or negative emotions (Robins et al., 1998; Scholte et al., 2005). A typological focus emphasizes intraindividual differences and seeks to identify groups of individuals with homogeneous profiles of variables (DiStefano & Kamphaus, 2006; Robins et al.; Scholte et al.). Whereas the dimensional approach to personality research identifies its component parts, the typological approach has the potential to elucidate overarching personality patterns that might have different psychological meaning and different

potential life outcomes (Scholte et al.). For example, an individual with a high level of Extraversion paired with a high level of Conscientiousness could have meaningfully different life outcomes than a person with a high level of Extraversion and a low level of Conscientiousness.

Establishing a typology in an area of research may allow for a greater understanding of the subject under observation. In particular, a typology provides greater ease of communication among researchers, as humans tend to categorize objects or persons into groups, and it allows for description, explanation, and prediction of observations (Robins et al., 1998). Just as a taxonomy of classifying animals provides scientists a starting point for understanding the biological characteristics of a specific animal and general expectations for behavior of the animal (e.g., fish take in oxygen through gills, lay eggs, etc.), so too could a typology of human behavior aid scientists and practitioners in understanding and predicting human behavior (Robins et al.). Arriving at a typology of individual differences among humans is not a new idea. The ancient Greeks Theophrastus and Hippocrates each observed different patterns of behavior in the people around them and proposed categories for grouping people based on their observations. The 30 types, or “characters,” proposed by Theophrastus included The Flatterer and the Unseasonable Man, while the four types described by Hippocrates (sanguine, melancholic, choleric, and phlegmatic) were postulated to be the result of the balance between the four humors in the human body (Robins et al.).

Modern personality research has focused on three primary methods of typology development: theory-based typologies, Q-sort typologies, and typologies resulting from cluster analysis. Freud, Jung, and others proposed various personality types (Robins et al., 1998). The Myers-Briggs Type Indicator (Myers & McCaulley, 1985), for example, describes 16 different personality types based on Jungian theory. Theory-based typologies have also been proposed in

the temperament literature. Thomas and Chess (1977) used their observations of infants and children to arrive at three temperament types: easy, difficult, and slow-to-warm-up. Easy children were characterized by an adaptable temperament, mild to moderate intensity of mood, and a positive approach style and comprised approximately 40% of the children in the NYLS. Difficult children, approximately 10% of the sample, were not adaptable, highly intense in mood, and reacted to new or unfamiliar situations by withdrawing. An additional 15% of the sample were labeled as slow-to-warm-up children who exhibited a mixture of responses. They were slow in adapting to new situations and often withdrew from unfamiliar circumstances, yet their moods were not as intense as the children with difficult temperament. This model accounted for only 65% of the participants in the NYLS, and although a typology based on theory can be useful for heuristic value, it lacks the empirical support necessary to validate a proposed model.

The second method that has been frequently used in developing a typology of personality is the Q-factor analysis. First, a person is described by another person who knows them well using a method known as a Q-sort (Block, 1971; Robins et al., 1998; Asendorpf et al., 2001). The sorter describes the person in question by dividing sets of cards with personality variables or attributes into groups ranging from very descriptive of the person to not at all descriptive. The resulting profile can be compared to the profiles of other individuals, and a correlation between the Q-sorts can be calculated to determine the similarity among people in the sample. An inverse, or Q-, factor analysis can then be conducted using all Q-sort profiles obtained in a study. The resulting Q-factors represent prototypical personality patterns, and individuals are classified into a type based on the best-fitting Q-factor (indicated by the factor with the highest loading; Asendorpf et al.; Robins et al.). One problem with Q-factor analysis, however, is that individuals

with profiles that load highly on more than one Q-factor or profiles that do not load highly on any Q-factors must be addressed and assigned to a type in some way (Asendorpf et al., 2001).

The third method used for developing typologies of personality is cluster analysis. Cluster analysis has been used successfully in different fields to classify individuals into types based on problem behaviors (e.g., Edelbrock & Achenbach, 1980; Huberty, DiStefano, & Kamphaus, 1997; Kamphaus, Huberty, DiStefano, & Petoskey, 1997), social status (e.g., Lease, Musgrove, et al., 2002; Lindstrom & Lease, 2005), and personality variables (e.g., Asendorpf et al., 2001; Dubas et al., 2002; Robins et al., 1998), among others. Two general methods of cluster analysis used most frequently are hierarchical methods and non-hierarchical methods (Aldenderfer & Blashfield, 1984; Hair & Black, 1998). Hierarchical agglomerative methods create a similarity matrix among the cases included in the analysis. The two most similar cases are identified and joined to form a cluster. The mean of these cases is called the cluster centroid and is considered the prototypical case for that cluster. The similarity matrix is recalculated for all possible pairs of cases. This process continues until all subjects are eventually classified into a single, large cluster. This process yields nonoverlapping clusters, and the Ward (1963) hierarchical procedure has been found superior to other methods in recovering known cluster structures in Monte Carlo data sets. However, this process involves only a single pass through the data, thus cases that are incorrectly assigned to a cluster early in the solution cannot be reconsidered for other, potentially more appropriate clusters (Huberty et al., 1997). A common nonhierarchical method used in cluster analysis is the iterative partitioning method. In this method, starting points, or seeds, for clusters are specified by the researcher or are randomly generated. Multiple passes are made through the data to assign cases to the clusters, thus a case can be reassigned to a cluster if it has been incorrectly assigned early in the process. This method

is sensitive to the starting points specified and can lead to poor cluster solutions if appropriate starting points are not used (Blashfield & Aldenderfer, 1988; Steinley, 2003). To overcome the limitations of each of these two methods utilized separately, several researchers have suggested a combination of hierarchical and iterative partitioning methods of cluster analysis (Huberty et al., 1997; Kamphaus et al., 1997; Milligan, 1980; Scheibler & Schneider, 1985). The results of the agglomerative hierarchical procedure produce the seeds that are used in the subsequent iterative partitioning. Thus, a case can be considered for different clusters in multiple passes through the data, yet the starting points used in the iterative partitioning procedure are more likely to yield a satisfactory cluster solution (Milligan, 1980; Scheibler & Schneider, 1985).

Typological studies in personality have generally found three replicable personality types: resilient, overcontrolled, and undercontrolled (Robins, John, & Caspi, 1996). The labels for these types relate to Block's (1971) two-factor model of personality. This model is made up of the factors of ego-resiliency and ego-control. Ego-resiliency deals with the flexibility and resourcefulness a person utilizes in responding to different situations, whereas ego-control addresses the ability to contain or inhibit, rather than express, emotions or behaviors (Scholte et al., 2005). Individuals with high levels of ego-resiliency tend to be most adaptive and have favorable responses in stressful situations. Having extremely high or extremely low levels of ego-control tends to be associated with more problematic outcomes. Using Block's (1971) model, a 2 X 2 model of personality can be proposed. However, J. H. Block and J. Block (1980) suggested that both significantly high and low ego-control would be associated with low ego-resiliency, thus three distinguishable types were hypothesized during the initial stages of research examining typologies of personality (Asendorpf et al., 2001). Studies in different geographical regions (e.g., the United States, New Zealand, the Netherlands, Belgium, Germany), using

participants with different demographics (e.g., age: children, adolescents, adults), obtaining personality data through different methods (e.g., Q-sort, self report, parent report, behavioral observations), and using different methods to arrive at personality types (e.g., Q-factor analysis, cluster analysis) have all found three personality types comparable to those proposed by Block and Block (1980). In terms of ego-resiliency and ego-control, the resilient personality type generally exhibits high ego-resiliency and moderate ego-control (Robins et al., 1998).

Overcontrollers receive low scores on measures of ego-resiliency and high scores on measures of ego-control, and undercontrollers show low scores on both ego-resiliency and ego-control (Robins et al., 1998).

The three personality types differ not only in the levels of ego-control and ego-resiliency observed, but also in terms of Big Five personality characteristics (Robins et al., 1998; Scholte et al., 2005; De Fruyt, Mervielde, & van Leeuwen, 2002). Resilients tend to have high levels of all five areas assessed (Robins et al., 1998). (This depends, however, on whether the instrument in question is measuring Emotional Stability or its inverse, Neuroticism. Resilient individuals have high levels of Emotional Stability.) Some studies suggest that the dimensions that most clearly differentiate resilients from other personality types are high levels of Conscientiousness and low levels of Neuroticism (Schnabel, Asendorpf, & Ostendorf, 2002). Overcontrolled individuals tend to exhibit moderate levels of Conscientiousness and Openness to Experience, high levels of Agreeableness and Neuroticism, and low levels of Extraversion (Robins et al., 1998; Schnabel et al., 2002). Undercontrollers exhibit moderate levels of Extraversion, high levels of Neuroticism, and low levels of Agreeableness, Conscientiousness, and Openness to Experience (Robins et al., 1998). Others have found that the essential feature of undercontrollers is a below average level of Conscientiousness, but not necessarily low Agreeableness (Schnabel et al., 2002).

An estimate of the proportion of the population that could be assigned to each personality type differs depending on the study. In general, the resilient group is typically the largest group (e.g., 49% Asendorpf et al., 2001; 47.9%, Dubas et al., 2002; 66%, Robins et al., 1996; 41%, Schnabel et al., 2002;). The overcontrolled group is typically the next largest (23%, 26.2%, 14%, 31%, respectively), followed by the undercontrolled group (28%, 25.9%, 20%, 28%, respectively).

Although three personality types have been replicated in many different studies, other personality typologies have been proposed. For example, Martin and Bridger (1999) developed a seven-cluster typology of individual differences in children ages 2 through 7 years based on different levels of two primary dimensions of temperament or personality: inhibition and impulsivity. The following types were obtained: Inhibited, Highly Emotional, Impulsive, Typical, Reticent, Passive, and Uninhibited. Inhibited children were characterized by moderate levels of impulsivity and high levels of inhibition; Highly Emotional children exhibited high levels of both personality dimensions; Impulsive children showed high levels of impulsivity and moderate levels of inhibition; Reticent children had low levels of impulsivity and moderate levels of inhibition; Passive children exhibited low levels on both dimensions; and Uninhibited children were characterized by moderate impulsivity and low inhibition (Martin & Bridger, 1999). Typical children did not express extreme levels of either personality dimension.

Other studies have found a five-cluster solution for individual differences in children, and these types have been linked to significant life outcomes (Caspi & Silva, 1995; Caspi et al., 2003). The types identified in the Dunedin study (i.e., Caspi & Silva, 1995) were labeled Undercontrolled (10% of sample; highly irritable, distractible, emotionally labile, poor sustained attention), Inhibited (8%; inhibited in novel settings, shy/fearful/socially reticent, distracted, poor

sustained attention), Confident (27%; eager to explore new tasks, little concern separating from parent, quickly adjust to new situations), Reserved (15%; self-critical, timid yet able to maintain concentration, shy), and Well-Adjusted (40%; behavior considered normal compared to age-mates). Thus, although strong evidence exists for a three-cluster typology of personality, other models have shown potential explanatory value in describing individual differences.

External evidence of validity for cluster solutions has included personality outcome variables. When participants were 18 years of age, fifteen years after the collection of initial personality data for the children in the Dunedin study, members of the different personality groups continued to exhibit differences on a different measure of personality (i.e., MPQ; Caspi & Silva, 1995). Undercontrolled children reported that they felt alienated as adolescents, viewed the world in negative terms and felt mistreated and betrayed by the world, and they had high scores on the general personality factor of Negative Emotionality. Inhibited and Reserved children rated themselves as not as socially potent as other adolescents (i.e., they did not pursue leadership roles in social situations and preferred for others to take the lead). As adolescents, Inhibited children reported that they were not aggressive, while Undercontrolled children reported a propensity toward aggression. In addition, Inhibited children rated themselves as highly Constrained as adolescents (Caspi & Silva, 1995). At age 26, Undercontrolled individuals reported somewhat lower alienation, aggression and negative emotionality, much less social closeness (i.e., liking people and turning to others for comfort), and more traditionalism (i.e., conventional, moralistic beliefs and attitudes; Caspi et al., 2003). Inhibited adults reported an increase in tolerance for aggression to an average (i.e., close to the mean) level, a slight decrease in constraint, and a continued highly negative value for social potency (i.e., avoid leadership positions; Caspi et al., 2003).

Different personality types have also been examined in relation to social outcomes, including likability and popularity. In a cluster analysis of personality variables obtained through adolescent self-report, Scholte et al. (2005) replicated the three personality types of resilient, overcontrolled, and undercontrolled. Hypothesizing a hierarchical type structure, Scholte et al. further divided each of the broad clusters into two personality subtypes. The resilient type was divided into communal and agentic resilient. Communal resilients were characterized by communion, or a tendency to put the needs of the group ahead of oneself, while agentic resilients were characterized by agency, or separating oneself from others and exercising assertion in expanding one's own identity. The communal group included 15.0% of the total sample and exhibited less emotional stability, less extraversion, less openness, more agreeableness, and more conscientiousness than the agentic resilient group (20.8% of total sample). The overcontrolled type was divided into vulnerable overcontrollers and achieving overcontrollers. Vulnerable overcontrollers expressed less conscientiousness, less openness, less emotional stability, and more extraversion than the achieving group and included 11.8% of the sample. Achieving overcontrollers included 29.5% of the sample and exhibited greater academic achievement than the vulnerable subtype. Undercontrollers were divided into an impulsive subtype and an oppositional subtype. Impulsive undercontrollers totaled 13.9% of the sample and possessed less conscientiousness, less emotional stability, less openness, more extraversion, and more agreeableness than the oppositional subtype. Oppositional undercontrollers included 8.9% of the sample and showed the inverse personality characteristics of the impulsive subtype (Scholte et al.). Peer nominations were also obtained in this study to assess likability, bullying involvement, and behavioral characteristics (e.g., aggression-inattention, achievement-withdrawal, self-confidence, sociability, etc.). For the three broad personality types, resilient children were liked

the most while undercontrollers received the most like-least nominations. Undercontrollers were most reported to bully others while overcontrollers were most likely to be nominated as victims of bullying. Resilients were perceived as the most sociable of the types (Scholte et al.). Of the six subtypes, impulsive undercontrollers received the most like-most nominations, oppositional undercontrollers received the most like-least nominations, oppositional undercontrollers were most often nominated as bullies of others (although impulsive undercontrollers received the next most nominations), and oppositional undercontrollers were most often nominated as bullied by others (although vulnerable overcontrollers and achieving overcontrollers had the second and third highest nominations, respectively; Scholte et al.). These findings suggest potentially different social status characteristics for the six personality subtypes.

Social Status in Children

Different fields have taken different approaches in measuring social status in children (Lease, Musgrove, et al., 2002; Lindstrom & Lease, 2005). In order to facilitate discussion among researchers focusing on social status, it is essential to establish a common nomenclature to describe what is meant by different status types. Historically, three primary fields have researched the phenomena surrounding social status: developmental psychologists interested in sociometric status, ethologists concerned with social dominance, and sociologists of education using ethnographic methods to assess participant-defined or perceived popularity (Lease, Musgrove, et al.; Lindstrom & Lease).

The study of sociometric status has focused on two separate dimensions of being well-liked and being disliked. These dimensions relate to Moreno's (1934) notion that interpersonal relationships are driven by two separate dimensions of repulsion and attraction. Sociometric status is generally assessed by asking individuals whom, among a group of people, do they like

the least and like the most. These ratings can be combined to form the two additional dimensions of social preference (result of like-most nominations minus like-least nominations) and social impact (total like-most nominations plus like-least nominations) (Coie, Dodge, & Coppotelli, 1982; Lease, Musgrove, et al., 2002; Lindstrom & Lease, 2005; Newcomb & Bukowski, 1983). Coie, Dodge, and Coppotelli (1982) examined the responses of third, fifth, and eighth grade children during a sociometric interview to arrive at five sociometric status groups: (1) popular (many nominations of like-most, few nominations of like-least, high social preference); (2) rejected (few nominations of like-most, many nominations of like-least, low social preference); (3) neglected (few nominations of like-most, few nominations of like-least, low social preference, low social impact); (4) controversial (many nominations of like-most, many nominations of like-least, high social impact); and (5) average (moderate nominations of like-most and like-least, moderate social preference and impact). Individuals in these status groups exhibit different qualities that are relevant to the study of personality and individual differences (Lindstrom & Lease, 2005). For example, popular children are typically seen as likable (Newcomb, Bukowski, & Pattee, 1993) and academically successful (Austin & Draper, 1984; Wentzel & Asher, 1995), yet exhibit low scores on traits such as aggression, disruptive behaviors, and social withdrawal (Coie & Dodge, 1988; Newcomb et al., 1993, Rubin, Bukowski, & Parker, 1998). In contrast, rejected children are viewed as aggressive and disruptive (Coie & Dodge, 1988; Coie et al., 1982; Green, Vosk, Forehand, & Beck, 1981; Wentzel & Asher, 1995), uncooperative (Coie et al., 1982), less sociable than peers (Newcomb et al., 1993), and less interested and successful in academic pursuits (Wentzel & Asher, 1995). These differences suggest that groups of individuals classified based on personality variables

(e.g., sociability, aggression, cooperativeness) will have different sociometric status as rated by peers.

Researchers from the ethological tradition view the trait of dominance as essential for success in a group because it relates to the ability to compete for and control available resources (Hawley, 1999; Lease, Musgrove, et al., 2002). Three strategies of dominance have been identified: (1) prosocial (cooperation, alliance formation, reciprocation, subtle influence often used by leaders to compete for resources); (2) coercive (aggression, threats, monopolization of resources, bullying techniques); and (3) mixed (strategy used depends on the individual situation; Hawley, 1999; Lease, Musgrove, et al., 2002). Dominance can be measured through a paired comparison procedure, where individuals are presented with a pair of individuals with whom they are familiar (e.g., classmates, peers) and asked to indicate which of the individuals has more power and influence (Axelrod, 2000; 2001; Lease, Musgrove, et al., 2002; Lindstrom & Lease, 2005).

Sociologists have used qualitative and ethnographic methods to study popularity (Adler & Adler, 1998; Adler, Kless, & Adler, 1992), and developmental psychologists have assessed perceived popularity through peer-nomination procedures (Parkhurst & Hopmeyer, 1998). These methods result in a conception of status based on the respondent's own social constructions of popularity (i.e., respondents are simply asked to identify popular individuals but they are not given a definition of what the researcher means by the term "popular," thus responses are based on their own ideas about the meaning of popularity; Eder, Evans, & Parker, 1995; Lease, Musgrove, et al., 2002; Rodkin, Farmer, Pearl, & Van Acker, 2000). Individuals nominated as popular tend to be central to and prominent in the social environment, as well as prestigious, visible, influential, and powerful (e.g., able to set trends; Lease, Musgrove, et al., 2002).

However, unlike sociometrically popular individuals, sociologically popular children are not necessarily well-liked (Eder et al., 1995; Lease, Musgrove, et al., 2002).

Examining sociometric status (i.e., likability), social dominance, and perceived popularity simultaneously allows for a multidimensional conceptualization of social status. Using peer nominations of these aspects of social status, Lease, Musgrove, et al. (2002) conducted a cluster analysis and arrived at a seven-cluster solution for describing social status types in middle childhood. Lindstrom and Lease (2005) conducted a model replication of the cluster solution with an independent sample and found a six-cluster solution. The six clusters identified were Low Status (low likability, low dominance, low perceived popularity), Low Dominant/Unpopular (average likability, low dominance, low perceived popularity), Well-Liked/Dominant (high likability, high dominance, average perceived popularity), High Status (high likability, high dominance, high perceived popularity), Disliked (low likability, average social dominance, average perceived popularity), and Perceived Popular/Dominant (average likability, high dominance, high perceived popularity). In the Lease, Musgrove, et al. (2002) study, the seventh identified cluster was labeled Average and was characterized by average scores across all three dimensions of social status; however, this type was not found in the replication solution. Based on additional peer nomination data (i.e., behavioral characteristics and prerogatives of social status), the High Status children were the central, most influential members of peer groups, were seen as leaders, and were admired by other children. Perceived Popular/Dominant and Well-Liked/Dominant children were also viewed as having strong social influence; however, the Perceived Popular/Dominant individuals seemed to exercise their power in a coercive, rather than prosocial, manner. The Low Status and Disliked individuals resembled the sociometrically rejected type found by others (e.g., Coie & Dodge, 1988, Coie et al., 1982).

One notable difference among the groups viewed by peers as less preferable peers or playmates (i.e., lower on the social ladder, Lease, Musgrove, et al., 2002) is that the Disliked group members possessed more social control and appeared similar to the rejected-aggressive subtype identified in the sociometric literature.

In addition to peer nominations pertaining to aspects of social status, Lindstrom and Lease (2005) collected information about each participant's personality using the ICID-Teacher Form. As one would expect, the six social status types differed on the narrow-band markers of personality examined in this study. The three higher social status types (i.e., High Status, Perceived Popular/Dominant, Well-Liked/Dominant) received higher scores as Sociable than the lower status groups. The Considerate facet was associated with groups that were well-liked (i.e., Low Dominant/Unpopular, Well-Liked/Dominant, High Status) but not necessarily with high social status. The Perceived Popular/Dominant and Disliked groups shared several negative valence characteristics: high scores on the Antagonism, Strong-Willed, and Negative Affect facets and low scores on the Considerate facet. Low Dominant/Unpopular and High Status group members shared several prosocial characteristics and negative scores on antisocial facets: high scores on the Considerate, Positive Emotions, and Sociable facets and low scores on the Antagonism, Negative Affect, and Strong-Willed facets. Considering these findings, along with those of Scholte et al. (2005), it appears that social status relative to peers is influenced by personality characteristics. The outcome variables (i.e., likability, bullying) used by Scholte et al. (2005) as external indicators of the validity of the six-cluster personality solution are similar to the multidimensional measures of social status used by Lindstrom and Lease (2005), however direct comparisons cannot be made because the instruments differ somewhat. Thus, it will be useful to the shared literature of personality and social psychology to make direct comparisons

between overall personality types based on ratings from a FFM questionnaire and social status variables, including social status types based on peer-nominated sociometric status, social dominance, and perceived popularity.

Purposes of the Current Study

The purposes of the current study are (1) to determine if a typology of personality based on teacher ratings of children in middle childhood is consistent with previous personality typologies (i.e., three-cluster model), (2) to examine the relationship between the resulting personality types and measures of social functioning, such as sociometric status, perceived popularity, social dominance, reciprocated friendships, and friendship quality, and (3) to compare the personality types to social status types that were previously established (Lease, Musgrove, et al., 2002; Lindstrom & Lease, 2005). It was expected that teacher ratings of personality would result in a cluster solution of three personality types, consistent with previous findings (e.g., Robins et al., 1996; Schnabel, 2002). Specifically, Hypothesis 1 states that one of the personality types (similar to resilient) will be characterized by relatively high scores on Conscientiousness/Intellect and Extraversion and low scores on Neuroticism and Disagreeableness (consistent with high scores on Agreeableness, Conscientiousness, Openness, and Extraversion and low scores on Neuroticism using the traditional Big Five); a second personality type (similar to overcontrollers) will express high levels of Neuroticism and low levels of Extraversion and Disagreeableness (consistent with high levels of Neuroticism and Agreeableness and low levels of Extraversion using the traditional Big Five); and a third type (similar to undercontrollers) will receive high ratings of Neuroticism and low ratings of Conscientiousness/Intellect (similar to high levels of Neuroticism and low levels of Conscientiousness and Openness using the traditional Big Five). Hypothesis 2 states that the

resulting personality types will differ with respect to social status in a statistically significant way. Specifically, it is expected that the positive personality cluster (resilient) will have high levels of sociometric status (i.e., many nominations of like-most, few nominations of like-least), high ratings of perceived popularity, and a high rate of reciprocated friendship of good quality. The more neurotic group (overcontrollers) will have average or slightly below average levels of sociometric status (i.e., average nominations of both like-most and like-least), low ratings of perceived popularity, and a moderate rate of reciprocated friendship of adequate or average quality. The group characterized by low Conscientiousness/Intellect (undercontrollers) will have negative sociometric status (i.e., few nominations of like-most, many nominations of like-least), low ratings of perceived popularity, a lower rate of reciprocated friendship than the other types and friendships of poor quality. Hypothesis 3 states that the composition of each of the six social status types identified by Lindstrom and Lease (2005) will differ from the overall sample with respect to the proportion of personality types in each status type. Specifically, the higher status types (i.e., High Status, Well-Liked/Dominant, Low Dominant/Unpopular) will have a disproportionate number of members assigned to the positive personality type (resilients), while the lower status types (i.e., Disliked, Low Status) will have a disproportionate number of individuals assigned to the more negative personality type (undercontrolled). Further, it is proposed that individuals in the Perceived Popular/Dominant social status type will also have a higher proportion of individuals in the negative personality type than would be expected from the total sample.

CHAPTER THREE

METHOD

Participants

Data for this study were collected as part of a larger study examining the characteristics of children and their peer groups. Participants for this study were 473 elementary school children between the ages of 9 and 12 from 10 fourth-grade and 16 fifth-grade classrooms in six schools in rural Georgia. Fifty-two percent of participants were female, and 54% of the children were European American (Non-Hispanic, here after referred to as White), 43% were African American (here after referred to as Black), and 3% were of other ethnicities. Of the six schools included in the study, the majority of students in two of the schools were White (79.4% White, 17.7% Black, 2.8% other ethnicity), and the majority of students in four of the schools were Black (80.6% Black, 16.2% White, 3.1% other ethnicity).

Procedure

Consent forms were given to parents of students in classrooms participating in the research project. Parents were to indicate whether they granted or denied consent for children to participate in the study. In addition to parental consent, children were asked to assent to participate in the study. If a child chose not to participate, he or she could leave the room or complete some other activity as approved by the classroom teacher (e.g., go to the library, read a book silently at his/her desk). No penalty was given for non-participation and all students in each classroom were given a small gift (e.g., pencil) regardless of participation in the study. Parental consent and child assent were obtained for 88.7% of possible study participants.

Questionnaires used in this study were administered to all participating students as a group in each classroom. One researcher read all instructions and items aloud while another researcher circulated through the room to answer questions and assist participants as necessary. Data were collected during two one-hour sessions. Participants were given a numbered list of students in their classroom who had parental consent to participate in the study. Consistent with guidelines from the University's Institutional Review Board (IRB), students whose parents denied permission to participate were not included on the class list; thus, participants could only nominate those students with parental consent to participate in the study. Participants used the numbers on these class rosters, rather than the actual names of students, to nominate classmates on the peer nomination measures. In addition, students were informed that their nominations would be kept confidential, and participants were provided with index cards to cover their questionnaires in order to keep responses private.

Measures

Inventory of Child Individual Differences-Teacher Short Form.

Teacher impressions of students' personality were obtained using the Inventory of Child Individual Differences-Teacher Short Form (ICID-TS). The ICID is an instrument developed by Halverson et al. (2003) to assess personality in children aged 3 to 12 years. Over 3000 native language parental descriptions of children in seven countries were obtained and the resulting descriptions were sorted into groups based on the FFM of personality by experts and novices in the area of personality theory. The items were translated and back-translated into English, Chinese, Dutch, and Greek. Following an examination of items for relevance across cultures, 141 Likert-type items were selected to assess children's personality. Parent ratings of children using these 141 items were factor analyzed through principal axis factoring and the maximum

likelihood approach to arrive at 15 midlevel scales and 5 factors of personality that match the Big Five factors of personality recognized in the adult personality literature (Halverson et al., 2003). The ICID was found to be internally consistent within each of the 15 midlevel scales across several age groups (minimum coefficient $\alpha=.72$ [Shy Scale, ages 6-8 and 9-11]; maximum coefficient $\alpha=.94$ [Intellect Scale, adult sample]; Halverson et al.). One-month stability coefficients ranged from .73 (9-year-old children, Neuroticism domain) to .95 (9-year-old children, Intellect scale), with most values ranging from .80 to .95 (Halverson et al.). Inter-rater reliability between mother and father ranged from .85 on the Neuroticism domain to .97 on the Conscientious domain (Halverson et al.). These values indicated that ratings on the ICID were both stable and consistent between respondents. To assess construct validity, the parent ratings using the ICID were correlated with two other measures of the Big Five (Costa and McCrae's [1992] NEO-Five Factor Index [NEO-FFI] and Digman and Shmelyov's [1996] 60-item scale). Score convergence on the FFM ranged from .51 to .87, indicating that the ICID exhibited convergent validity with other scales hypothesized to measure the FFM of personality. In subsequent studies using the ICID, the instrument demonstrated strong reliability and validity (Goldberg, 2001; Mervielde, 1994; Slotboom & Elphick, 1997).

Through further factor analysis, the original ICID was reduced to a 108-item and a 48-item version (Deal, Halverson, Martin, Victor, & Baker, 2006). The goal of this reduction was to decrease the time necessary to complete the ICID while maintaining adequate reliability and validity. The coefficient alphas for the final 48-item ICID-Short Form (ICID-S) ranged from .70 (Shy) to .85 (Positive Emotions; Deal et al., 2006). The correlations between the scales of ICID-S and the scales from the ICID ranged from .89 (Strong-Willed) to .95 (Sociable; Deal et al., 2006). To assess the convergent and discriminant validity of the ICID-S, correlations between

the 15 subscales of the ICID-S and other measures of temperament and behavioral adjustment (e.g., the Temperament Assessment Battery for Children-Revised, Martin & Bridger, 1999; the Children's Behavior Questionnaire, Rothbart, Ahadi, & Hersey, 2001; the Revised Behavior Problem Checklist, Quay, 1987) were computed. These correlations were compared to those obtained with the full ICID (Halverson et al., 2003), and a correlation of .92 ($p < .001$) was obtained (Deal et al., 2006). Thus, the short version of the ICID appears to offer reliability and validity comparable to that of the full version of the ICID.

In the present study, teachers completed a 61-item version of the ICID (Appendix A) that was prepared during the development and validation of the 48-item version. Each child was rated on a seven-point scale on each of the 61 items (1=much less than the average child or not at all; 7=much more than in the average child). Since the ICID and ICID-S were developed using parental ratings of children's individual differences, the factor structure obtained in those studies (Halverson et al., 2003; Deal et al., 2006) could differ from the structure of teacher ratings of personality. A preliminary factor analysis of the ICID-Teacher Short Form (ICID-TS) used in the present study was conducted to determine the structure of teacher ratings of personality with this instrument.

Social status.

Consistent with the multidimensional, interdisciplinary conceptualization of social status implemented in previous research (Lease, Musgrove, et al., 2002; Lindstrom & Lease, 2005), social status was assessed in three broad dimensions: sociometric status, perceived popularity, and social dominance. Previous research (Lease, Kennedy, & Axelrod, 2002) indicates that these three dimensions of social status are moderately correlated (most popular and like-most: $r = .62$; most popular and like-least: $r = -.14$; most popular and dominance: $r = .62$; like-most and like-

least: $r = -.35$; like-most and dominance: $r = .57$; like-least and dominance: $r = -.28$).

Additionally, variables related to friendship were also analyzed (i.e., reciprocated friendship and friendship quality). To assess sociometric status, or likability, students were asked to nominate up to three classmates from the roster of participating students as students they liked the most (like-most, “Who do you like to play with the most?”) and up to three students that they liked the least (like-least, “Who do you like to play with the least?”). The number of like-most and like-least nominations received by each student was summed and standardized within classroom and gender, consistent with the procedure used by Coie et al. (1982). The method of standardizing ratings within classroom and gender was used to allow for comparisons between classrooms with differing numbers of study participants. Additionally, children typically nominate same-gender peers for social status items, and most classrooms did not have an equal number of males and females (Lease, Musgrove, et al., 2002).

Since the definition of popularity can differ among individuals, children in the study used their own constructions and definitions of popularity to indicate the participants who were most popular (Parkhurst & Hopmeyer, 1998). Children were asked to nominate three classmates as most popular (“Which of your classmates are the most popular at school?”). This direct measure of popularity is believed to assess children’s social constructions of popularity (Lease, Musgrove, et al., 2002; Lease, Kennedy, et al., 2002). Participants’ nominations were summed and standardized within classroom and gender using the same method as for likability.

Social dominance was measured using a paired-comparison procedure developed by Axelrod (2000). In this procedure, participants were presented with a list of all same-gender dyads in the classroom and asked to indicate (i.e., circle) the individual who has more “influence and power” (“Some kids have influence and power over other kids – they get others to do what

they want.”). Same-gender dyads were used because cross-gender pairs tend to favor males as more dominant and underestimate social dominance in all-female groups (Axelrod, 2000). In order to control for potential time and space effects related to the ordering of the pairs in the list, the Ross order method (1934) was used to generate lists of dyads (Davison, 1983; Lease & Axelrod, 2001; Lease, Musgrove, et al., 2002). Dominance was indicated by the number of times a child was selected as the individual in a pair with more power and influence. The dominance ratings were standardized within classroom and gender.

In order to assess characteristics related to friendship among participants in the group, reciprocated friendship and friendship quality were assessed. Each individual was asked to nominate up to three classmates as friends (“Tell us who your three closest friends at school are”). A reciprocated friendship was defined as one in which both members of the dyad nominated the other as a friend. Although participants could have up to three reciprocated friendships, it has been proposed that having at least one reciprocated friendship is more significant than having multiple friendships (Parker, Rubin, Price, & DeRosier, 1995). Therefore, a dichotomous distinction was made between individuals who had a reciprocated friendship and those who did not.

All participants completed the Friendship Quality Questionnaire-Revised (FQQ) (Parker & Asher, 1993) to assess characteristics of their most preferred friendship. For individuals with a reciprocated friendship, the name of the other person in the friendship dyad was inserted into the FQQ. Individuals without a reciprocated friendship completed the FQQ with the name of their most preferred friend inserted into the questionnaire, but these data were not included in analyses of friendship quality. The FQQ is a 40-item instrument that assesses various aspects of friendship quality on a scale from 1 (“Not true at all”) to 5 (“Really true”). Items are summarized into six

subscales (Companionship and Recreation, Validation and Caring, Help and Guidance, Intimate Disclosure, Conflict Resolution, and Conflict and Betrayal), as well as a Total Friendship Quality score. Internal consistency (i.e., alpha) coefficients for the subscales ranged from .73 (Conflict Resolution) to .90 (Validation and Caring, Help and Guidance). For the current study, the Total Friendship Quality score was used as the indicator of a child's friendship quality.

Clustering Procedure

Before beginning a cluster analysis procedure, certain factors must be considered. First, the researcher must decide which variables to measure for the individuals to be included in the cluster analysis. This decision should be based on theory and practical considerations (Hair & Black, 1998). Given the history of research exploring a typology of personality from the Big Five theoretical perspective (e.g., Asendorpf et al., 2001, Dubas et al., 2002, Schnabel, Asendorpf, & Ostendorf, 2002), the four broad factors obtained in the factor analysis of the ICID-TS will be used as the variables measured for each subject in the cluster analysis.

In order to prepare the data for cluster analysis, factor scores for each of the four factors were be calculated. Two general procedures for calculating factor scores exist: exact procedures and approximation procedures (Gorsuch). Exact methods capitalize on chance in the initial analysis, and complex weighting procedures do not generalize well to new samples (Gorsuch). Thus, a procedure for approximating factor scores is appropriate. This can be achieved either (1) by examining each variable's factor loadings to find the factor with the strongest relationship (thus assuming a non-salient relationship with all other variables) and using the variable to calculate only that factor score or (2) by examining factor loadings for each factor and including all salient variables to calculate the factor score for that factor (Gorsuch). In the first procedure, variables with strong loadings on more than one factor are eliminated (Gorsuch). The advantage

of the procedure is that it creates a set of factor scores that are experimentally independent (Gorsuch). If variables contribute to more than one factor, the resulting factor scores are somewhat experimentally dependent and can produce spurious correlations (Gorsuch, 1983). Thus, this method of calculating factor scores was used.

Next, outliers in the sample must be identified (Huberty et al., 1997). Outliers might indicate observations that are not representative of the general population or, alternatively, true observations of groups that are underrepresented in the sample due to sampling error (Hair & Black, 1998). For large samples such as the one in this study, outlier profiles may be detected using a calculation of similarity, such as Euclidean distance (Hair & Black, 1998; Huberty et al.). Although the Mahalanobis distance calculated using the DeCarlo (1997) macro for SPSS could also be used to detect outliers, this method requires the estimation of within cluster variance among variables (Blashfield & Aldenderfer, 1988). Since the identification of outliers will be conducted before a cluster solution is selected and cluster membership is determined, it is impractical to use this method of outlier detection. The next decision involves determining the measure of similarity to use in assessing clusters (Huberty et al.). The most common indicators of similarity used in cluster analysis are correlational measures, association measures, and distance measures (Hair & Black). Of these, distance measures are used most frequently (Hair & Black), with Euclidean distance being the measure most commonly used (Huberty et al.; Hair & Black; Aldenderfer & Blashfield; Milligan & Cooper, 1987).

After these preliminary considerations have been made, the procedure of determining the cluster solution must be selected. A detailed comparison of the two most common methods of cluster analysis, hierarchical and nonhierarchical procedures, is provided in chapter two. Huberty et al. (1997) recommends a combined method of cluster analysis. In this method, an

agglomerative hierarchical technique is first used to determine the general cluster prototypes (centroids) in a sample. Then, an iterative k -means procedure is utilized, using the centroids obtained in the first step as the starting points for the analysis. This procedure overcomes both the problems associated with hierarchical methods alone (i.e., a single pass through the data does not allow individuals to be reassigned to clusters) and iterative procedures alone (i.e., poor cluster solutions resulting from inappropriate starting points). Following the recommendation of Huberty et al., this hybrid method was used to obtain the cluster solution in this study.

The next decision involves the number of clusters to retain from the cluster analysis. The goal of the analysis is to derive as many clusters as necessary to maximize homogeneity within cluster while minimizing similarity between clusters. Unlike other multivariate methods, cluster analysis does not have a standard internal statistical criterion for the selection procedure (Hair & Black, 1998). One method that can be used is an examination of the similarity measure (i.e., Euclidean distance) between clusters with each successive step (Hair & Black). When the similarity measure exceeds a certain value or makes a sudden large increase, the process stops (Hair & Black). Another method of determining the number of clusters to consider involves the cubic clustering criterion that can be obtained through the Statistical Analysis System (SAS) computer program (Huberty et al., 1997; Hair & Black; Milligan & Cooper, 1987). This variable compares the observed R^2 , the proportion of variance among children accounted for by membership in the assigned cluster, with its expected value (Huberty et al.). These values are plotted with respect to the number of clusters, and the number of clusters to consider is suggested by the point where the cubic clustering criterion no longer decreases a great deal with increasing numbers of clusters (i.e., the “elbow,” Huberty et al.). Plotting the clusters against the Fusion Coefficient (pseudo F) is another way of determining the number of clusters to consider that is

similar to the cubic clustering criterion plot (Aldenderfer & Blashfield, 1984). In addition, a rational examination of the potential cluster solutions can elucidate the appropriate constellation of clusters. For this study, all of these methods of cluster selection were used.

It has been argued that it is possible to obtain a cluster typology from completely random data (Huberty et al., 1997; Abelson, 1995). Thus, it is essential to compare cluster solutions from one data set with that of another relevant data set. This validation process also ensures that the cluster solution is representative of the general population and stable over time (Hair & Black, 1998). The ideal method for obtaining validity data for a cluster solution is to attempt to replicate an observed solution in a new data set. However, this is not always possible. Since two separate data sets were not available for this study, the validation process was achieved by comparing cluster solutions obtained from random split halves of the sample. Several methods of comparison of cluster solutions exist. One method of comparison involves examining the characteristics of the clusters obtained in each solution with the split samples with respect to the characteristics of the other clusters and the clusters obtained in the total sample (Lease, Musgrove, et al., 2002; Robins et al., 1996). Other methods of comparison include comparing split-half cluster solutions using a linear discriminant function (LDF), using cross-typology clustering, and comparing matched cluster centroid location (Huberty et al.). For this study, examination of cluster characteristics was used to determine the replicability of the cluster solution.

Differentiation of Clusters on Measures of Social Status

In order to assess the validity of the cluster solution obtained and to determine its meaningfulness in relation to indicators of social status, children in each of the clusters were compared with regard to their sociometric status, perceived popularity, dominance, rates of

reciprocated friendship, and friendship quality. First, a chi square test of association was conducted to determine if the cluster members differed with respect to gender or ethnicity. Previous cluster analyses of measures of personality suggest that gender and ethnicity effects will not be observed (e.g., Scholte et al., 2005; Robins et al., 1996). Next, a general linear model (GLM) analysis was conducted using the clusters obtained in the cluster analysis as the between-subjects factor and four peer-rated indicators of social status (i.e., like-most, like-least, index of popularity, index of dominance) and two indicators of friendship status (i.e., number of reciprocated friendships, friendship quality) as dependent variables.

In addition, the personality clusters obtained in this study were compared to the social status clusters obtained by Lease, Musgrove, et al. (2002; see chapter 2). An LDF developed by Lindstrom and Lease (2005) was used to assign individuals in the present study to one of the seven types obtained by Lease, Musgrove, et al. A chi square analysis was used to assess the relationship among these clusters. In a chi square analysis, the expected observations are compared to the actual observations, and the null hypothesis that the expected and observed values will not differ is tested. In this study, the null hypothesis was that the students in each of the clusters obtained in the cluster analysis of personality data would be evenly distributed among each of the seven social status clusters (i.e., approximately 14.29% of the members in each of the personality clusters would be in each social status cluster). For example, it was hypothesized that three personality types would be obtained in the current study consistent with the replicable types of resilient, overcontrolled, and undercontrolled. The resilient type was hypothesized to account for approximately 45% of the sample, the overcontrolled for 30%, and the undercontrolled for the final 25% (e.g., Asendorpf et al., 2001; Dubas et al., 2002; Schnabel et al., 2002). If members of each personality type were proportionally likely to be assigned to

each social status type, then each social status type would contain 45% resilient individuals, 30% overcontrolled individuals, and 25% undercontrolled individuals. However, based on the findings of Lindstrom and Lease and Scholte et al. (2005), it was hypothesized that the personality types obtained in this study would not be proportionally distributed among status types. Personality types characterized by Agreeableness and Extraversion would likely comprise a larger proportion of the positive status types (e.g., High Status, Well-Liked/Dominant), while types characterized by elevated levels of Neuroticism and low levels of Agreeableness and Openness would comprise a larger proportion of the lower status types (e.g., Disliked, Low Status).

CHAPTER FOUR

RESULTS

Preliminary Results

As previously discussed, the ICID is an instrument for assessing personality based on parental descriptions of children. The five-factor structure of the parent-rated ICID might differ from a factor structure based on teacher ratings of children. Thus, teacher ratings obtained with the ICID-TS were submitted to a factor analysis using principal axis factoring. To allow for intercorrelation among factors, the factors were rotated using an oblique (oblimin) rotation method. Based on statistical guidelines related to the number of factors to retain in factor analytic solutions (Gorsuch, 1983; Zwick & Velicer, 1986) and following inspection of items for factor loadings and structure consistent with theory (Halverson et al., 2003), four factors were chosen for the final structure. Specific information regarding the method of factor analysis used and results of this analysis (e.g., factor loadings, inter-item correlations) are reported elsewhere (Butzon, Miller, Martin, Halverson, & Lease, 2007). The four factors obtained in this analysis were labeled Conscientiousness/Intellect, Disagreeableness, Extraversion, and Neuroticism. The items included in each factor are presented in Appendix B.

Each factor was analyzed for internal consistency. The Conscientiousness/Intellect factor consisted of 16 items ($\alpha=.96$), the Disagreeableness factor consisted of 15 items ($\alpha=.94$), the Extraversion factor consisted of 14 items ($\alpha=.94$), and the Neuroticism factor consisted of 5 items ($\alpha=.81$).

Since each factor included a different number of items, factor scores were standardized within classroom to a mean of 0.00 and a standard deviation of 1.00. This allows for comparison across factors for the subsequent cluster analysis. However, when examining the total sample, the variability appears to decrease, resulting in a total standard deviation less than 1.00. When similar analyses were conducted with simulated data, aggregating separate samples (e.g., classrooms) resulted in a decrease in standard deviation. Items that loaded on a factor were summed to obtain an overall factor score. Items with negative loadings were reverse scored before being added to the factor score so that all values in each factor would be positively correlated. Descriptive statistics for these variables for the complete sample are presented in Table 1.

Cluster Analysis of Teacher-Rated Personality

The first step in data analysis was to prepare the data for cluster analysis by factor analyzing teacher-rated personality as measured by the ICID-TS. Eleven students were excluded due to incomplete data, thus a sample of 462 students was used to conduct the analysis. The next step in data analysis was to conduct a cluster analysis of the scores on the four personality factors using a combined method of cluster analysis. First, an agglomerative hierarchical technique was used to determine cluster centroids. Next, an iterative *k*-means procedure was utilized to assign individuals to clusters using the centroids obtained in the first step as cluster prototypes. These analyses were conducted using SAS. Based on previous research and theories of personality typologies, three-, four-, five-, and six-cluster solutions were examined more closely. Cluster means, standard deviations, cubic clustering criterion (CCC) values, pseudo *F* statistics, and basic cluster demographic information are presented for each solution in Table 2. Cluster

centroids (means) for the three-, four-, five-, and six- cluster solutions are presented in Figures 1, 2, 3, and 4, respectively.

Upon examining the cluster means of each solution and assessing the CCC and pseudo F statistics for meaningfulness, it was determined that the four-, five-, and six-cluster solutions should be further analyzed. In order to test the replicability of these cluster solutions, cluster analyses were conducted on separate halves of the sample. The total sample was randomly split into two halves and a cluster analysis was conducted on each half of the sample. Next, the total sample was randomly split a second time, resulting in two different sample halves, and a cluster analysis was conducted on each of these halves. Finally, the total sample was split once again, and a cluster analysis was conducted on each of the halves. This resulted in cluster analyses on six random halves of the total data set. This procedure was repeated for each of the four-, five-, and six-cluster solutions, resulting in a total of 18 half-sample combined cluster analyses (i.e., hierarchical agglomerative technique followed by iterative k -means procedure). The cluster centroids from the resulting solutions were examined for meaningfulness and given preliminary labels. The frequency that a given cluster emerged in each of the split-half analyses was calculated. These frequencies are presented in Table 3.

Across the three potential solutions, four clusters were consistently replicated. Of the 18 total cluster solutions examined (i.e., six separate analyses in each of the three potential solutions), a Resilient type was found in 18 solutions, a Dysregulated type was found in 18, an Overcontrolled type was found in 15, and a Disagreeable type was found in 16. Twenty Average types with slightly different profiles of scores were found across the solutions. In some cases, more than one Average type was found in a single solution. An Extraverted cluster and a Poor

Student cluster were found in the six-cluster solutions, but these clusters did not emerge in other solutions.

Given the replicability of the Dysregulated, Resilient, Disagreeable, Overcontrolled, and Average clusters, a five-cluster solution was chosen as the most appropriate for this study. Cluster means and standard deviations for this solution are presented in Table 4. The solution obtained from the total sample included three groups that were similar to those based on Block's (1980) ego-control and ego-resiliency theory (i.e., resilient, overcontrolled, and undercontrolled), as well as a group of individuals who received average scores across domains. In addition, a cluster was obtained whose group members received average scores in all areas except Disagreeableness on which they received elevated scores. Data regarding the demographic characteristics of each cluster are presented in Table 5.

Chi square analyses indicated that the cluster groups did not differ from the expected value for the variables of gender [$\chi^2(4, N = 462) = 8.14, p = .09$] or majority status (i.e., the individual was a member of the majority race in the classroom) [$\chi^2(4, N = 462) = 2.43, p = .66$]. However, the number of individuals assigned to each cluster differed significantly from the expected value for the variable of race [$\chi^2(8, N = 462) = 23.91, p = .002$]. Specific differences between expected and observed values for each cluster are described below.

The first cluster ($N = 84, 18.2\%$ of sample) in this solution was somewhat similar to the undercontrolled group found in other examinations of personality typologies. However, this group was labeled *Dysregulated* because members were characterized not only as moderately Disagreeable ($z = .42$), but also moderately high on Neuroticism ($z = .70$), low on Extraversion ($z = -.86$), and low on Conscientious/Intelligent ($z = -.89$). The characteristic that most differentiated this group from others was the low level of Conscientiousness/Intellect reported by

teachers, suggesting that teachers see these individuals as not organized, not planful, not dependable, and not smart. The Dysregulated group included more Black students than expected ($N = 42$, expected $n = 35.1$).

The second cluster that emerged ($N = 113$, 24.5% of sample) was labeled *Resilient*. These individuals received positive scores across domains (Conscientiousness/Intellect: $z = .94$; Disagreeableness: $z = -.51$; Extraversion: $z = .76$; Neuroticism: $z = -.79$). These children were perceived by teachers as bright, dependable, outgoing, and not antagonistic or fearful. This group included a disproportionate number of White students ($N = 71$, expected $n = 62.4$).

The third cluster ($N = 90$, 19.5% of total sample) obtained cluster means that were not meaningfully different from 0.00 on any characteristic (Conscientiousness/Intellect: $z = -.29$; Extraversion: $z = -.03$; Neuroticism: $z = -.03$) except Disagreeableness ($z = .91$). The individuals in this cluster were rated as the most Disagreeable of all clusters. Thus, this group was labeled *Disagreeable*. Black students were placed in this group more frequently than expected ($N = 51$, expected $n = 37.6$).

The fourth cluster ($N = 118$, 25.5% of total sample) was labeled *Average* because cluster means were near 0.00 across domains (Conscientiousness/Intellect: $z = -.09$; Disagreeableness: $z = -.18$; Extraversion: $z = .09$; Neuroticism: $z = -.04$).

Finally, the fifth cluster ($N = 57$, 12.3% of total sample) was labeled *Overcontrolled* as these individuals exhibited similar characteristics to individuals with this label in other samples. These individuals were rated as moderately high on Neuroticism ($z = .73$), average on Conscientiousness/Intellect ($z = .08$), moderately low on Extraversion ($z = -.39$), and low on Disagreeableness ($z = -.65$). Teachers perceived these students as fearful, not strong-willed, low

in activity level, and compliant. More White individuals than expected were placed in this group ($N = 41$, expected $n = 31.5$).

External Validation of Personality Clusters

Differentiation of clusters based on peer-reported social status variables.

The typology of personality derived from teacher ratings using the ICID-TS was further examined to determine if there were differences in types of students as perceived by peers. Specifically, the question was tested of whether personality types exhibited differences on the variables of sociometric status, perceived popularity, social dominance, and friendship characteristics. This procedure provided an external validation of the cluster solution obtained from teacher ratings. The aspects of social standing included in these analyses were peer nominations as a most liked classmate (like-most), peer nominations as a least liked classmate (like-least), peer nominations as a popular student (perceived popularity), same-gender forced-choice dominance ratings (dominance), ratings of friendship quality as assessed by the FQQ, and reciprocated friendship (i.e., whether or not an individual had at least one reciprocated friendship). Descriptive statistics for these variables are presented in Table 6, and intercorrelations among variables are presented in Table 7.

All variables except the presence of a reciprocated friendship were analyzed using a GLM. The five cluster groups were found to have different peer-nominated sociometric status [like-most: $F(4, 457) = 5.58, p = .000$; like-least: $F(4, 457) = 11.22, p = .000$], perceived popularity [$F(4, 475) = 10.12, p = .000$], and dominance [$F(4, 450) = 12.45, p = .000$]. The groups also differed with regard to the overall quality of their closest reciprocated friendship as measured by the total score on the FQQ [$F(4, 449) = 4.08, p = .003$]. Post hoc Duncan tests were utilized to determine which personality types differed on each social status variable. A chi square

analysis was used to examine group differences from the expected with regard to whether or not group members had a reciprocated friendship; this analysis assessed whether or not individuals had a single reciprocated friendship, rather than assessing the number of friendships reported by each participant. A significant difference was found [$\chi^2 (4, n = 451) = 13.81, p = .008$]. Although the clusters were found to differ in a statistically significant way for each of the external variables, an examination of the effect sizes indicates that this resulted in a small to medium effect for all variables. Table 8 presents the results of these analyses for each of the peer status variables by cluster.

The *Dysregulated* group generally received negative peer ratings. Individuals in this group received the fewest nominations of like-most of all groups. However, this group received nominations similar to participants in the Average group for the like-least variable. Dysregulated participants were less likely to be nominated as popular by their peers (yet they received nominations that did not differ significantly from the Average group). These individuals received ratings of dominance similar to the Average group. Perhaps the most notable characteristics about members of this group were related to friendship. Only 75.95% of individuals in this group had a reciprocated friendship, the lowest percentage of reciprocated friendship of all personality types. Additionally, members of this group had the lowest total scores on the Friendship Quality Questionnaire, suggesting poor quality friendships among the 75.95% of individuals found to have a reciprocated friendship.

The *Resilient* group received positive peer reports of status. This group received the most nominations of all groups of like-most and the fewest nominations of like-least. However, the group did not differ significantly from the Average group on either variable. The Resilient group received many nominations as popular. The group was similar to the Average and Dysregulated

groups on the dominance measure. Individuals in this group had the highest percentage of members with a reciprocated friendship (i.e., 90.27%). The Resilient group, like all groups except the Dysregulated one, received positive ratings of friendship quality.

The *Disagreeable* group received variable social status ratings. The nominations of these students on the like-most variable did not differ significantly from members of the Dysregulated, Average, or Overcontrolled groups. However, these individuals received the most ratings of any group as like-least. Members of this group also received many nominations of perceived popularity, which, notably, did not differ significantly from nominations of members of the Resilient group. However, only 76.14% of members of this group had a reciprocated friendship. Of the five personality types, this is the second smallest proportion of group members with a friendship. Perhaps the most noteworthy social status characteristic of the Disagreeable group is that members of this type received the highest dominance rating of all groups.

As one might expect, members of the *Average* group received average ratings of social status across variables. Interestingly, this group had the second highest percentage of group members with a reciprocated friendship (i.e., 89.57%). This suggests that despite average levels of sociometric status, dominance, and perceived popularity, Average students were just as likely to be a member of a friendship dyad as were Resilient students.

Finally, the *Overcontrolled* group received nominations similar to other groups on all peer nomination measures except dominance. Specifically, they received average nominations as like-most (similar to the Resilient and Average groups), few nominations as like-least (similar to the Resilient group), and very few nominations as perceived popular (similar to the Dysregulated group). This group received the lowest dominance ratings of all groups, suggesting that peers

perceive these individuals as submissive and passive compared to classmates. A moderate percentage of individuals in this group, 82.14%, reported having a reciprocated friendship.

Comparison of personality clusters and social status clusters.

In addition to examining the external validity of the five-cluster typology of personality by assessing type differences on single social status variables, the personality clusters were compared to broader, person-centered social status types. This allowed for the comparison of two separate typologies of interest: teacher-rated personality and peer-reported social status.

Although using single variables, as in the previous discussion, can provide some explanation for different social outcomes of personality types, this procedure might not provide sufficient exploration of the complex interaction of social status variables. For example, the Disagreeable group was perceived as popular by peers, yet this group had a relatively low rate of reciprocated friendships. This is not consistent with what one would expect for popular, central group members (Lease, Musgrove, et al., 2002).

In order to examine the relationship between personality types and social status types, a chi square analysis was conducted comparing the personality clusters derived in this study and the social status types found by Lease, Musgrove, et al. (2002) and Lindstrom and Lease (2005). A linear classification function (LCF) developed by Lindstrom and Lease was used to assign members from this dataset to social status types based on characteristics from the typology established by Lease, Musgrove et al. Participants were assigned to one of the seven multi-dimensional social status types. The results of this analysis indicated that the seven social status types were not comprised equally of members of the five personality types [$\chi^2 (24, N = 455) = 81.36, p < .000$]. The expected and observed values for each personality type are presented in Table 9.

The *Dysregulated* group was most often assigned to the Average and Low Dominant/Unpopular social status types (22.0% of the Dysregulated group assigned to each of the Average and Low Dominant/Unpopular social status type). However, this group was more likely than expected to be a member of the Low Status ($N = 12$, expected $n = 7.0$), Disliked ($N = 14$, expected $n = 9.9$), and Well-Liked/Dominant types ($N = 13$, expected $n = 11.5$), and less likely than expected to be a member of the Perceived Popular/Dominant ($N = 4$, expected $n = 10.6$) and High Status ($N = 3$, expected $n = 8.3$) types. Thus, this personality type was more likely than expected to be a member of the low status types of this typology of social status and less likely than expected to be a member of the high status types.

The *Resilient* group was most often assigned to the Average social status type (30.3% of the Resilient group), however this was the largest social status group and included 25.5% of the total sample. This group was more likely than expected to be a member of the High Status ($N = 20$, expected $n = 11.3$) and Perceived Popular/Dominant ($N = 20$, expected $n = 14.5$) types, and less likely than expected to be a member of the Low Status ($N = 4$, expected $n = 9.6$), Disliked ($N = 6$, expected $n = 13.5$), and Well-Liked/Dominant ($N = 11$, expected $n = 15.8$) types. In general, this group was less likely than expected to be a member of a low status type.

The *Disagreeable* group was most often classified as Perceived Popular/Dominant (26.7% of Disagreeable group). As one might expect given the unique profile of group means on the individual social status variables (i.e., high ratings of perceived popularity but low occurrence of reciprocated friendships), this group was split between high and low status types. Specifically, this group was more likely than expected to be assigned to the Low Status ($N = 11$, expected $n = 7.7$), Disliked ($N = 16$, expected $n = 10.9$), and Perceived Popular/Dominant types

($N = 24$, expected $n = 11.7$), and less likely than expected to be assigned to the Low Dominant/Unpopular ($N = 4$, expected $n = 15.0$) and Average ($N = 12$, expected $n = 22.9$) types.

In general, the *Average* personality type closely matched the total sample distribution for social status type membership. This group was most likely to be assigned to the Average social status type (27.8% of group, $N = 32$, expected $n = 29.3$), and members of this group were more likely than expected to be assigned to the Low Dominant/Unpopular ($N = 22$, expected $n = 19.2$) and Well-Liked/Dominant ($N = 32$, expected $n = 29.3$) types. Members of this group were less likely than expected to be assigned to the Perceived Popular/Dominant ($N = 10$, expected $n = 14.9$) type.

Finally, like the *Average* personality type, the *Overcontrolled* personality type closely matched the total sample distribution. This group was most likely to be assigned to the Average social status type (35.7% of group, $N = 20$, expected $n = 14.3$). This group was more likely than expected to be assigned to the Low Dominant/Unpopular type ($N = 15$, expected $n = 9.4$), and less likely than expected to be assigned to the Perceived Popular/Dominant type ($N = 1$, expected $n = 7.3$).

*Table 1**Descriptive Statistics for ICID-TS Factors*

Variable	<i>N</i>	Minimum	Maximum	Mean	SD
Conscientiousness/Intellect	458	-1.88	2.08	.00	.75
Disagreeableness	458	-2.01	2.20	.00	.71
Extraversion	462	-2.45	2.25	.00	.72
Neuroticism	458	-1.98	2.71	.01	.73

Table 2

Comparison of Cluster Means (Centroids), Cubic Clustering Criterion Variables and Pseudo F

Statistics for Proposed Cluster Solutions

Solution	Cluster	Centroids				N	CCC	Pseudo F
		Con/Int	Dis	Ext	Neu			
3 Clusters							20.21	233.45
	1	-.56	.67	-.35	.21	182		
	2	.78	-.41	.67	-.67	150		
	3	-.12	-.44	-.28	.50	130		
4 Clusters							16.03	212.38
	1	-.90	.46	-.86	.73	83		
	2	.87	-.48	.72	-.76	127		
	3	-.30	.71	.01	-.09	117		
	4	-.02	-.43	-.15	.36	135		
5 Clusters							8.05	182.50
	1	-.89	.42	-.86	.70	84		
	2	.94	-.51	.76	-.79	113		
	3	-.29	.91	-.03	-.03	90		
	4	-.09	-.18	.09	-.04	118		
	5	.08	-.65	-.39	.73	57		
6 Clusters							7.85	171.51
	1	-.63	.18	-.33	.17	87		
	2	1.02	-.64	.96	-.95	76		
	3	-.29	1.02	-.01	-.01	74		
	4	.41	-.21	.22	-.27	113		
	5	-.05	-.64	-.24	.65	62		
	6	-.90	.48	-1.07	.96	50		

Note. Con/Int = Conscientiousness/Intellect; Dis = Disagreeableness; Ext = Extraversion;

Neu = Neuroticism; CCC = Cubic Clustering Criterion.

*Table 3**Frequency of Cluster Profiles in 4-, 5-, and 6-Cluster Solutions*

Cluster	4-Cluster Solution	5-Cluster Solution	6-Cluster Solution
Resilient	6/6	6/6	6/6
Dysregulated	6/6	6/6	6/6
Overcontrolled	4/6	5/6	6/6
Disagreeable	4/6	6/6	6/6
Average	--	--	4/6
Average/Agreeable	2/6	--	2/6
Average/Emotionally Stable	1/6	--	--
Average/Disagreeable	1/6	--	--
Average/Resilient	--	6/6	3/6
Average/Agreeable, Poor Student	--	1/6	--
Poor Student	--	--	2/6
Extraverted	--	--	1/6

Note: A dashed line indicates that the cluster did not emerge in any of sample halves for a cluster solution.

Table 4

Characteristics of the Six-Cluster Solution

Cluster	N	%	Clustering Variables							
			Con/Int		Dis		Ext		Neu	
			Mean	SD	Mean	SD	Mean	SD	Mean	SD
Dysregulated	84	18.2	-.89	.41	.42	.49	-.85	.49	.69	.54
Resilient	113	24.5	.94	.35	-.51	.49	.76	.48	-.79	.52
Disagreeable	90	19.5	-.29	.49	.91	.39	-.03	.49	-.08	.53
Average	118	25.5	-.08	.43	-.18	.36	.09	.44	-.04	.38
Overcontrolled	57	12.3	.08	.48	-.64	.44	-.38	.41	.73	.40

Note. % = the percentage of the total sample in each cluster. Con/Int = Conscientiousness/

Intellect; Dis = Disagreeableness; Ext = Extraversion; Neu = Neuroticism.

Table 5

Demographic Characteristics by Personality Cluster Membership

Demographic Characteristic	Teacher-Rated Personality Cluster															χ^2
	Dysregulated			Resilient			Disagreeable			Average			Overcontrolled			
	<i>N</i>	(exp)	%	<i>N</i>	(exp)	%	<i>N</i>	(exp)	%	<i>N</i>	(exp)	%	<i>N</i>	(exp)	%	
Gender																8.14
Male	50	(40.0)	59.5	56	(53.8)	49.6	42	(42.9)	46.7	50	(56.2)	42.4	22	(27.1)	38.6	
Female	34	(44.0)	40.5	57	(59.2)	50.4	48	(47.1)	53.3	68	(61.8)	57.6	35	(29.9)	61.4	23.91*
Race																
White	40	(46.4)	47.6	71	(62.4)	62.8	39	(49.7)	43.3	64	(65.1)	54.2	41	(31.5)	71.9	
Black	42	(35.1)	50.0	38	(47.2)	33.6	51	(37.6)	56.7	48	(49.3)	40.7	14	(23.8)	24.6	
Other	2	(2.5)	2.4	4	(3.4)	3.6	0	(2.7)	0.0	6	(3.6)	5.1	2	(1.7)	3.5	2.43
Majority Status																
Majority race in classroom	67	(66.7)	79.7	94	(89.8)	83.2	67	(71.5)	74.4	93	(93.7)	78.8	46	(45.3)	80.7	
Non-majority race in classroom	17	(17.3)	20.3	19	(23.2)	16.8	23	(18.5)	25.6	25	(24.3)	21.2	11	(11.7)	19.3	

Note. (exp) = expected *N*. * $p < .01$.

*Table 6**Descriptive Statistics For Social Status Variables*

Variable	<i>N</i>	Minimum	Maximum	Mean	SD
Like-Most	473	-1.85	2.64	.00	.94
Like-Least	473	-1.95	3.23	.00	.94
Perceived Popularity	473	-1.71	2.73	.00	.94
Dominant	466	-2.22	2.33	.00	.95
FQQ Total	464	.00	26.00	16.86	6.32

Table 7

Intercorrelations Among Social Status Variables

	Like-Most	Like-Least	Perceived Pop.	Dominant	FQQ Total	Friendship
Like-Most	--	-.35**	.49**	.34**	.18**	.42**
Like-Least		--	-.03	-.03	-.05	-.20**
Perceived Pop.			--	.56**	.10*	.28**
Dominant				--	.14**	.25**
FQQ Total					--	.29**
Friendship						--

* $p < .05$. ** $p < .01$.

Table 8

Peer-Reported Social Standing by Personality Cluster

Teacher-Rated Personality Cluster Means							
Peer-Rated Social Status Variable	DYS	RES	DISA	AVE	OVE	Statistic	Effect Size
Like-Most	-.35 ^c	.27 ^a	-.08 ^{bc}	.03 ^{ab}	.02 ^{ab}	$F(4, 457) = 5.58^{***}$.047 ^I
Like-Least	.14 ^b	-.30 ^c	.48 ^a	-.06 ^{bc}	-.27 ^c	$F(4, 457) = 11.22^{***}$.089 ^I
Perceived Popularity	-.30 ^b	.30 ^a	.28 ^a	-.11 ^b	-.36 ^b	$F(4, 457) = 10.12^{***}$.081 ^I
Dominant	-.18 ^b	.05 ^b	.51 ^a	-.04 ^b	-.51 ^c	$F(4, 450) = 12.45^{***}$.100 ^I
FQQ Total	14.42 ^a	17.08 ^b	17.37 ^b	17.62 ^b	17.94 ^b	$F(4, 449) = 4.08^{**}$.035 ^I
Percentage with a Friendship	75.95%	90.27%	76.14%	89.57%	82.14%	$\chi^2(4, N = 451) = 13.81^*$.175 ^{II}

Note. Row values with the same superscript did not differ significantly from one another. *DYS* = Dysregulated; *RES* = Resilient; *DISA* = Disagreeable; *AVE* = Average; *OVE* = Overcontrolled.

Roman numerals indicate the effect size statistic used. ^I = R^2 ; ^{II} = Cramer's V .

* $p < .01$; ** $p < .005$; *** $p < .001$.

Table 9

Personality Cluster Membership by Social Status Membership

Social Status	Dysregulated			Resilient			Disagreeable			Average			Overcontrolled		
	<i>N</i>	(exp)	%	<i>N</i>	(exp)	%	<i>N</i>	(exp)	%	<i>N</i>	(exp)	%	<i>N</i>	(exp)	%
HS	3	(8.3)	3.7	20	(11.3)	17.9	10	(9.1)	11.1	9	(11.6)	7.8	4	(5.7)	7.1
AV	18	(20.9)	22.0	34	(28.6)	30.3	12	(22.9)	13.3	32	(29.3)	27.8	20	(14.3)	35.7
LD/U	18	(13.7)	22.0	17	(18.7)	15.2	4	(15.0)	4.4	22	(19.2)	19.1	15	(9.4)	26.8
DL	14	(9.9)	17.1	6	(13.5)	5.4	16	(10.9)	17.8	14	(13.9)	12.2	5	(6.8)	8.9
LS	12	(7.0)	14.6	4	(9.6)	3.6	11	(7.7)	12.2	7	(9.9)	6.1	5	(4.8)	8.9
WL/D	13	(11.5)	15.9	11	(15.8)	9.8	13	(12.7)	14.4	21	(16.2)	18.3	6	(7.9)	10.7
PP/D	4	(10.6)	4.9	20	(14.5)	17.9	24	(11.7)	26.7	10	(14.9)	8.7	1	(7.3)	1.8

Note. Expected values are *italicized*. % = the percentage of individuals in the personality cluster that are in each social status cluster.

HS = High Status; AV = Average; LD/U = Low Dominant/Unpopular; DL = Disliked; LS = Low Status;

WL/D = Well-Liked/Dominant; PP/D = Perceived Popular/Dominant.

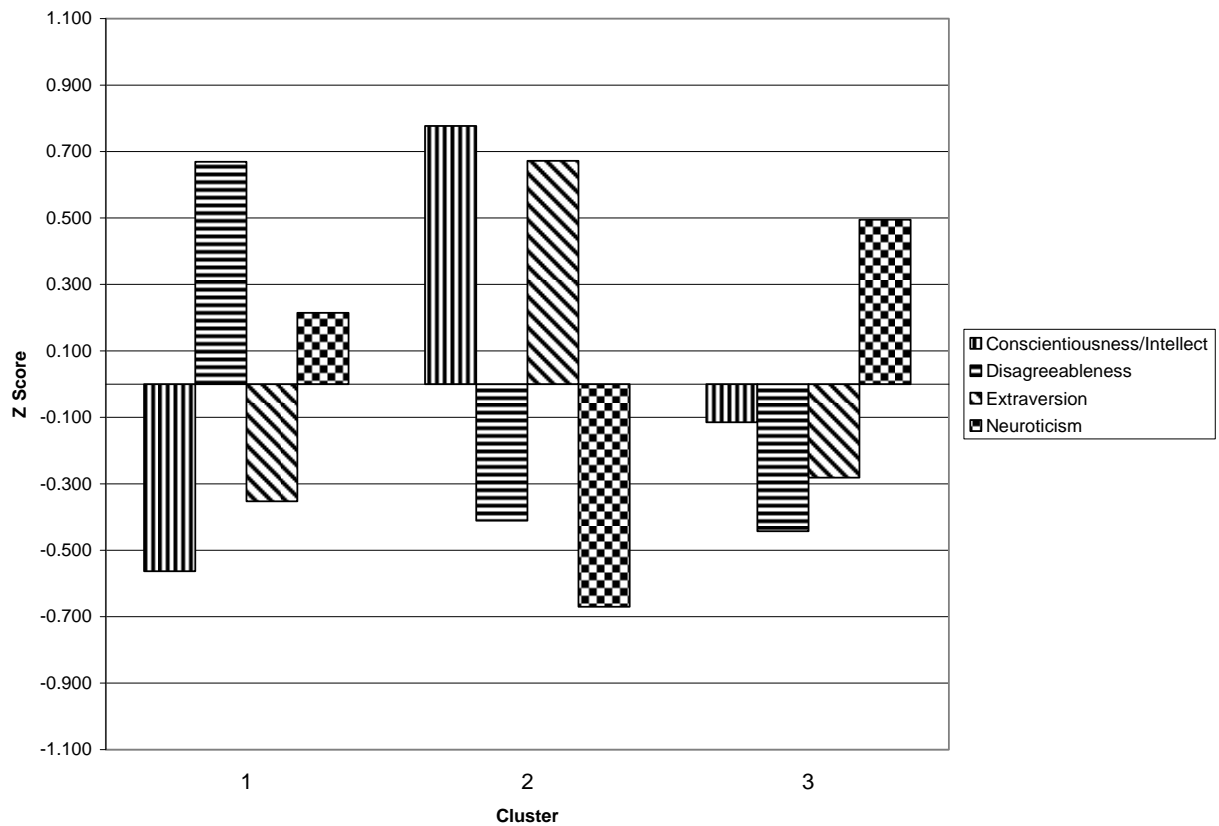


Figure 1

Cluster Centroids for the Three-Cluster Solution of the ICID-TS

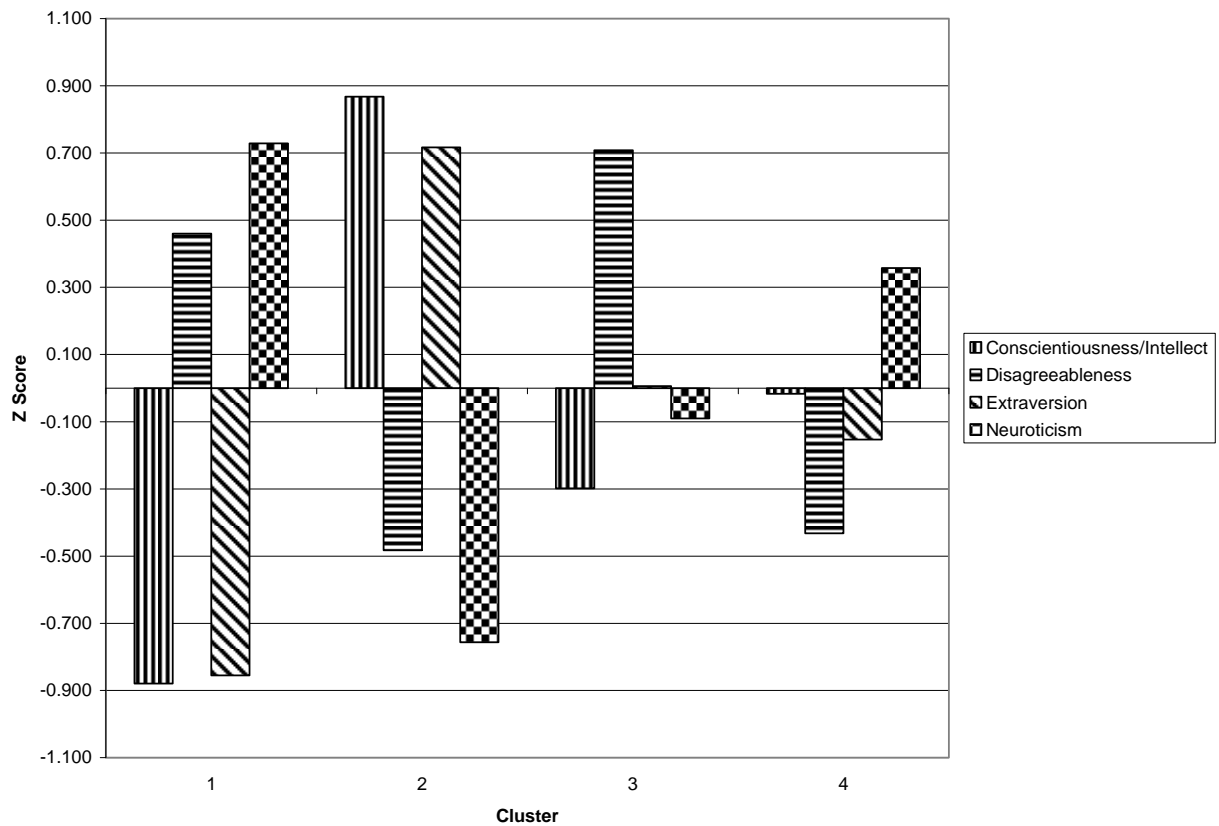


Figure 2

Cluster Centroids for the Four-Cluster Solution of the ICID-TS

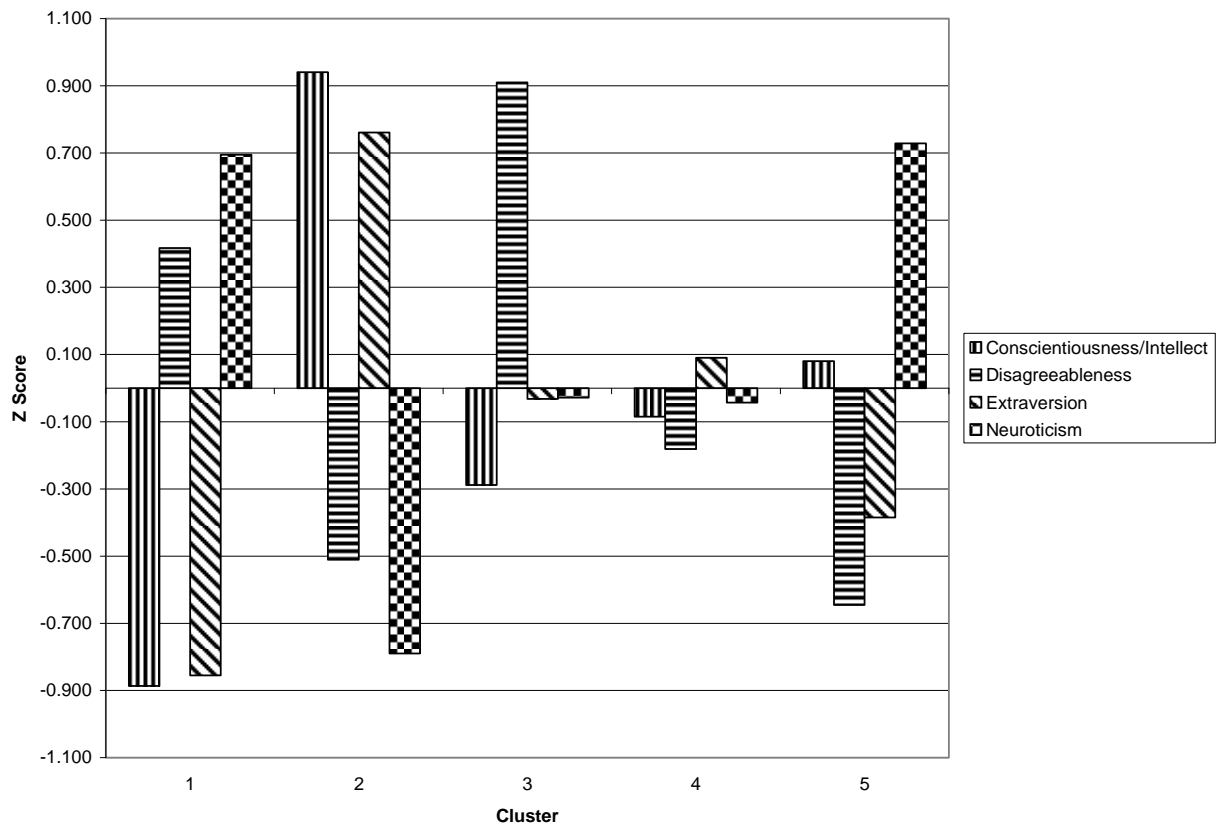


Figure 3

Cluster Centroids for the Five-Cluster Solution of the ICID-TS

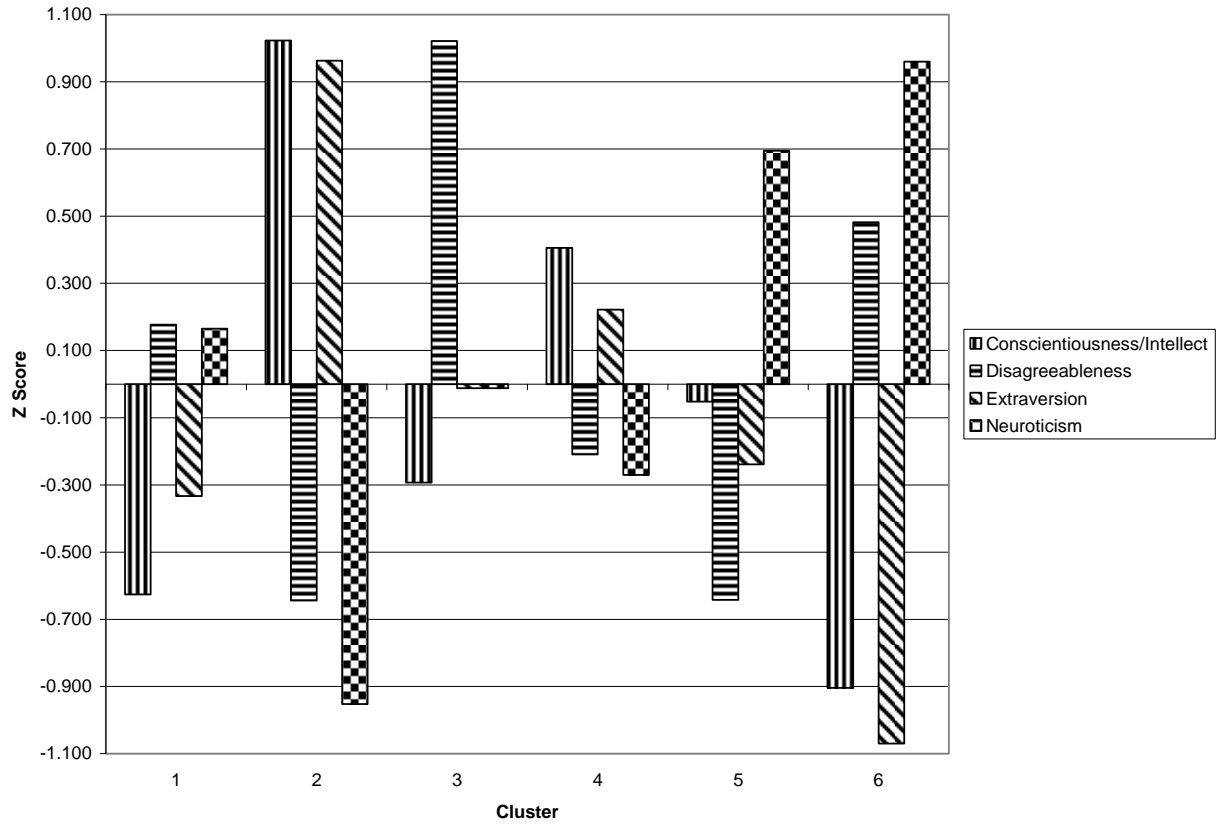


Figure 4

Cluster Centroids for the Six-Cluster Solution of the ICID-TS

CHAPTER FIVE

DISCUSSION

The current study was proposed to address the extent of the association between personality and social status in middle childhood. This goal was achieved in three stages. The purpose of stage one was to determine the structure of a typology of teacher-rated personality of children in middle childhood. The second stage examined the relationship between this typology and individual indicators of social status, such as sociometric status and perceived popularity, as reported by children's peers. Finally, the third stage determined the personality types most often associated with each of the peer-reported social status types proposed by Lease, Musgrove, et al. (2002) and Lindstrom and Lease (2005).

In the first stage of the study, a cluster analysis of teacher-rated personality was conducted. It was hypothesized that the three personality types based on the work of Block and Block (1980) (i.e., resilient, overcontrolled, and undercontrolled) and consistently found in empirical studies (e.g., Schnabel, 2002; Scholte et al., 2005) would be replicated in this study. The analysis resulted in five, rather than three, personality clusters. In this discussion, the personality types derived in the present study will be referred to as "clusters," while types proposed in previous research will be labeled "types." The resulting typology of personality included the three proposed personality types, as well as an Average personality cluster and a personality cluster characterized by high levels of disagreeableness (labeled the Disagreeable cluster). The personality cluster found to be similar to the undercontrolled type in other studies was labeled Dysregulated because of the broad areas of difficulty in personality observed. The

other Block and Block (1980) personality type labels (i.e., Resilient and Overcontrolled) were used to describe the remaining clusters observed in this study. The proposed hypothesis was confirmed but did not adequately describe the personality differences of the children in this sample as rated by teachers, thus requiring the addition of two personality clusters.

In the second stage, the association between the five personality clusters and several variables of social standing was assessed using chi square and GLM analyses. The hypothesis that the resilient personality type would be associated with positive social characteristics (i.e., high sociometric status, high perceived popularity, high rates of friendship) was supported. The hypothesis that the overcontrolled personality type would be associated with average social standing (i.e., average sociometric status, low perceived popularity, moderate rates of friendship) was also supported. In addition, this group received the lowest nominations of dominance of all personality clusters, suggesting that peers perceive these individuals as submissive. As hypothesized, the Dysregulated personality cluster, similar to undercontrolled types in previous research, was associated with negative social characteristics (i.e., poor sociometric status, low perceived popularity, poor friendship quality) and the lowest rates of reciprocated friendship of all personality types. The Average personality cluster was, as one might expect, associated with average social standing across variables. Finally, the Disagreeable cluster received mixed nominations of social status. Specifically, these children received negative sociometric status nominations (i.e., average like-most but the most like-least nominations of all groups), nominations of perceived popularity similar to the Resilient cluster (i.e., the group rated as most popular by peers), the highest dominance ratings of all groups, and the second lowest rate of reciprocated friendship of all groups.

Finally, in order to address the final hypothesis, a chi square analysis was used to compare the personality clusters derived from this dataset and the social status types found by Lease, Musgrove, et al. (2002) and Lindstrom and Lease (2005). It was hypothesized that the resilient personality type would be overrepresented in the high social status types (i.e., High Status, Well-Liked/Dominant, and Low Dominant/Unpopular), while the undercontrolled personality type would be overrepresented in the lower social status types. Additionally, it was hypothesized that the undercontrolled individuals would also be associated with the Perceived Popular/Dominant social status type more often than expected by chance. Results of the analysis supported the hypothesis regarding the social status of the Resilient cluster. The Dysregulated personality cluster was more likely than expected to be associated with the Low Dominant/Unpopular, Disliked, and Low Status social status types. However, contrary to the hypothesized relationship, this personality group was less likely than expected to be associated with the Perceived Popular/Dominant social status type. The Overcontrolled and Average clusters followed the social status group membership patterns of the entire sample. However, both groups were less likely than expected to be assigned to the Perceived Popular/Dominant social status group. Children in the Disagreeable group were less likely than expected to be assigned to the Average social status group. They were less likely than expected to be assigned to the Low Dominant/Unpopular group and more likely than expected to be assigned to the Perceived Popular/Dominant group, suggesting that peers generally perceive these individuals as popular and dominant. This finding is consistent with the results of the previous analysis using single social status characteristics. However, this group was also more likely than expected to be assigned to two additional low status types (i.e., Disliked and Low Status).

Theoretical Implications

The results of this study may be examined in light of theories of personality, social status in children, and general social, emotional, and behavioral functioning of children. From the theoretical examination of individual differences, the typology proposed here can be compared to both a widely used temperament typology and a well-established personality typology. The temperament types of easy, difficult, and slow-to-warm-up proposed by Thomas and Chess (1977) fit well with the characteristics of the types found in the current study. The easy temperament type is characterized by positive attributes such as adaptability, regularity, and mild to moderate mood, similar to the Resilient cluster found in the present study. In contrast, the difficult type shows qualities opposite the easy type (i.e., not adaptable, biologically irregular, intense moods), similar to the Dysregulated cluster found in the current study. Slow-to-warm-up children might be seen as similar to the Overcontrolled cluster because of slow adaptability and reluctance to approach new situations.

In the personality literature, Block and Block's (1980) three personality types emerged in the current study of teacher-rated personality. However, the personality characteristics did not match exactly with the characteristics of the observed clusters, and the Block and Block (1980) three-type model did not adequately account for personality differences in the study (i.e., two additional clusters were found). However, unlike the proposed personality characteristics of the undercontrolled personality type, the Dysregulated cluster found in the current study exhibited more broad personality difficulties than hypothesized. Previous research suggested that the undercontrolled type would be typified by high Neuroticism and low Conscientiousness/Intellect. Although the Dysregulated cluster in this study was, indeed, found to have high Neuroticism and low Conscientiousness/Intellect, individuals in this group were also found to have low

Extraversion and high Disagreeableness. This suggests that these children not only lack control in their inhibition of responses to stimuli, as evidenced by poor conscientiousness and an overall neurotic pattern of responding to life events, but also are unlikely to approach social situations. Further, they have a tendency to overreact or are not cooperative when something prevents them from attaining their desired outcomes.

Although the Block and Block (1980) model only includes three personality types, two additional personality clusters were found in the current study. The resulting clusters have potential utility in advancing the understanding of personality types in childhood. As previously discussed, the Average personality cluster was associated with teacher ratings of personality close to the mean on all variables. Unlike the Resilient cluster found in this study and proposed based on the ego-control/ego-resiliency model, the Average cluster was not exceptionally resilient nor extremely over- or undercontrolled. Rather, these individuals make up a group of people who function adequately in their environments and neither experience notable difficulty nor exceptional successes. The fact that this was the largest of all personality clusters found in this study ($N = 118$, 25.5% of total sample) suggests that this is an important and meaningful group for this sample and potentially for the population as a whole. Additionally, similar Average groups have emerged in studies outside the personality literature (e.g., social, emotional, and behavioral functioning, Kamphaus et al., 2003).

The Disagreeable cluster found in the current study is unlike personality types found in previous research. One of the most notable characteristics about this group is that they received average ratings on most dimensions of personality, yet they received high ratings on the Disagreeable dimension. This suggests that teachers perceive these students as more uncooperative, stubborn, irritable, and selfish than other groups of children. One notable

characteristic about this group is that more Black children than expected were assigned to this group, suggesting that race might be a factor in teacher ratings of personality. Perhaps White teachers are more likely to interpret behaviors of Black students as disagreeable because they are unaware of or unfamiliar with typical behaviors of individuals in the students' culture. Teachers from a different cultural background might interpret behaviors considered culturally appropriate and acceptable in the students' culture as inappropriate, and therefore disagreeable, because they are viewed as inappropriate in the teachers' culture. Furthermore, even in situations where teachers and Disagreeable students are members of the same culture, teachers might view these students negatively because they feel the students are interfering with the goals of the classroom or are undermining the authority of the teacher.

The three Block and Block (1980) personality types were associated with social status variables in ways that were predicted based on theories of personality and prior research. Given the positive characteristic associated with members of a Resilient personality type, it is not surprising that the individuals placed in this category were associated with positive social characteristics. Classmates viewed these children as well-liked and popular, and these individuals were the most likely to have a reciprocated friendship of all groups. On the other hand, individuals in the Dysregulated cluster were associated with negative social characteristics, much as people in undercontrolled personality types in prior research have shown negative and problematic outcomes. Peers viewed these individuals as unpopular and not well-liked (i.e., few nominations as like-most). However, these children were nominated as liked-least, or were disliked, approximately as often as children in the Average cluster, suggesting that they are not necessarily rejected by peers. The Overcontrolled cluster was characterized by high ratings of Neuroticism (i.e., fearful, anxious) by teachers. This quality did not impede these children from

having friendships and receiving adequate levels of social status as reported by peers. However, peers viewed these individuals as much less dominant than other classmates. Perhaps Overcontrolled individuals are fearful and reticent to become involved in even minor conflicts among classmates, leading peers to view them as not dominant.

The Disagreeable cluster proved quite interesting in terms of peers' perceptions of social status. Examining the proportion of members of the Disagreeable personality cluster who were assigned to various social status groups (Lease, Musgrove, et al., 2002; Lindstrom & Lease, 2005), it appears that peers have clear opinions of the popularity and dominance of these individuals. Few members of this group were assigned to the Average social status type, suggesting that peers perceive these individuals at the extreme ends of the continuum of social status. Disagreeable individuals were most likely to be associated with the Perceived Popular/Dominant social status type (26.7% of the Disagreeable group assigned to this social status type) and the Disliked social status type (17.8%). Examination of the individual social status variables provides additional insight into peers' views of the Disagreeable personality cluster. As expected based on the social status types of these individuals, Disagreeable children were rated as both popular and dominant. Although they received average nominations of like-most that did not differ from other groups, these individuals received the most nominations of like-least of all groups. Similar to the rejected sociometric type found in previous studies, this suggests that peers dislike these children. Although Parker and Asher (1993) found that children who were rejected by peers often had friendships of adequate quality, perhaps the disliking by peers in the current study could explain the low rates of reciprocated friendship experienced by individuals in this group. The exact factors that make these individuals so controversial among peers are unclear. Previous research examining social status types (e.g., Lease, Musgrove et al.;

Lindstrom & Lease) suggests that characteristics such as physical attractiveness for girls, athletic ability for boys, and peer perceptions as cool might differentiate dominant individuals into different social status types (i.e., Perceived Popular/Dominant and Disliked). Perhaps similar characteristics could explain the different social status ascribed to members of the Disagreeable cluster found in the current study. In general, however, the irritable, uncooperative characteristics of Disagreeable children observed by teachers are related to potentially problematic social relationships for these individuals.

Emotional or behavioral types similar to the Dysregulated cluster found in the current study have been repeatedly found in studies from different theoretical frameworks. These studies have collected data in different ways and used different sources of information for gathering data (e.g., parents, teachers, self report). Specifically, studies often find a type exemplified by broad, general problems across dimensions. For example, Martin and Bridger (1999) identified a group of children labeled Highly Emotional and characterized by elevated inhibition and impulsivity in a study of parent- and teacher-rated temperament in children between the ages of 2 and 7 years. These children were sensitive to both cues of punishment and reward, and they had a propensity toward negative emotionality in the form of both fear (due to high levels of inhibition and sensitivity to punishment) and frustration (due to inaccessibility of reward) (Martin & Bridger). Martin and Bridger hypothesize that these individuals experience significant emotional distress in social situations and are expected to have negative developmental outcomes. Given the continuity of temperament and personality and the teacher ratings of personality obtained in the current study, it is reasonable to conclude that the Highly Emotional temperament type and the Dysregulated personality cluster are capturing similar characteristics of individual differences. The Dysregulated individuals in the present study do not simply manifest impulsive response

styles as expressed through emotional lability (i.e., high neuroticism) or poor conscientiousness. Rather, these individuals exhibit both inhibition (i.e., low extraversion) and impulsivity (i.e., low conscientiousness/intellect, high disagreeableness), suggesting a broader problem with regulation of behaviors and emotions.

Analyses based on data obtained from research conducted from different theoretical backgrounds also produce a behavior type similar to the broad range of difficulty exhibited by the Dysregulated personality cluster. For example, teacher-, parent- and self-reported adaptive and maladaptive behavior have been analyzed to produce a type or types of individuals with broad behavior problems. Teacher responses to a questionnaire detailing adaptive and maladaptive behaviors of children between the ages of 6 and 11 resulted in seven behavior types, three of which were characterized by varying levels of behavior problems and/or psychopathology (Huberty et al., 1997; Kamphaus et al., 1997). These three behavior problem types, labeled Mildly Disruptive, Disruptive Behavior Disorder, and Severe Psychopathology, comprised 12%, 8%, and 4% of the sample population, respectively (Huberty et al.; Kamphaus et al.). Parent ratings of children's behavior using a collateral instrument resulted in nine behavior types, two of which were characterized by severe behavior problems (Kamphaus et al.). These types, labeled Disruptive Behavior Problems and General Psychopathology – Severe, comprised 9% and 3% of the sample population, respectively (Kamphaus et al., 1999). Children's own self-report as assessed by a rating form similar to the parent and teacher forms discussed above were also gathered and cluster analyzed to produce ten behavior types, two of which included notable broad behavior problems (Kamphaus, DiStefano, & Lease, 2003). These types, labeled Disruptive Behavior Problems and General Problems – Severe, comprised 6% and 5%, respectively, of the total standardization sample of the Behavior Assessment System for Children

– Self-Report of Personality (BASC-SRP) (Kamphaus, DiStefano, & Lease, 2003). These studies indicate that approximately 11 to 24% of individuals in middle childhood experience severe social, emotional, and behavior problems that may or may not rise to the level of a diagnosable psychological disorder. Given the finding in the current study that 18.2% of the members in the sample were classified into the Dysregulated group, the conclusion can be drawn that a group of individuals exists across studies, and perhaps in the general population, that is typified by social and emotional problems. In a broader sense, this provides evidence that members of society in different contexts with different roles view other members of the group in similar, consistent ways.

Practical Implications

Although the results of the analyses in the current study were statistically significant, it is important to determine if the differences in the groups are practically significant. With large samples, such as the one obtained in the current study, statistically significant results can be obtained, despite little or no practical significance in the population at large. Power analysis is an indication of whether or not a difference will be observed in a given population and is, therefore, practically significant. Although it is possible for analyses to result in small power yet suggest important differences in society or a population at large, recent advances in statistical analysis suggest that power analysis can be one indication of the practical significance of a study (Cohen, 1992, Volker, 2006). One aspect of power analysis is effect size (Cohen). Effect size can be measured and reported in different ways, depending on the type of analysis conducted. For the current study, the R^2 value for GLM analyses and Cramer's V for chi square analyses were suggested as the most appropriate effect size measures (Cohen; Volker). When using R^2 as the indicator of effect size, Cohen's guidelines for small (.01), medium (.06), and large (.15) effect

sizes for ω^2 can be applied to the R^2 value (Olejnik, 2005). Thus, the like-least (.089) and dominance (.100) variables produced a medium effect, while the like-most (.047), perceived popularity (.081), and FQQ total (.035) variables produced a small to medium effect. In chi square analyses, Cohen's w , the phi coefficient, and Cramer's V are all indicators of effect size. Since the contingency table used in the present study was larger than 2 X 2, Cramer's V , rather than the phi coefficient, was the most appropriate indicator of effect size. Examining Cramer's V for the reciprocated friendship variable (.175) suggests that the effect size for this variable is small to medium (small = .10, medium = .30, large = .50; Cohen; Voker). Therefore, despite highly statistically significant results, the differences among personality clusters on the social status variables produced only small to medium effects.

The findings of the current study confirm and extend what is known about personality in middle childhood. Research in personality can be invaluable to parents, teachers, and other professionals working with children. One benefit of understanding individual differences in childhood is that knowledge of a child's personality characteristics can help plan areas of intervention and guide the way interventions are presented. As indicated in the present study, Dysregulated children tend to have the lowest rates of reciprocated friendship of all personality types, and teachers perceive them to be highly neurotic and disagreeable while not being conscientious or extraverted. Thus, if a child develops social, emotional, or behavioral problems at home or in the classroom that warrant intervention, the individual planning the intervention could benefit from understanding the profile of a child in the Dysregulated group. One area of intervention might include social skills education and training in making and maintaining friendships so that these children might benefit from some of the protective factors of friendship (Parker et al., 1995). Additionally, the individual presenting the intervention would need to

understand the personality characteristics of such a child and develop the intervention accordingly. Specifically, a Dysregulated child might require more guidance and assistance in following through with intervention homework assignments because of the perceived lower level of conscientiousness. These children might also benefit from frequent praise for efforts in the intervention program because they could be more prone to fear and anxiety about performance due to their high neuroticism.

Another result of the present study is that teachers are good sources of information regarding children's personality characteristics, and this information could be helpful in identifying children who are at risk for developing behavioral or emotional problems. Based on the findings in other fields regarding children with broad, general behavioral and emotional difficulties (e.g., French, 1988; Kamphaus et al., 2003; Martin & Bridger, 1999), one might want to identify children in the Dysregulated group so that early intervention programs could be implemented to prevent development of psychopathology. However, if an intervention program was designed to assist rejected children, additional data from peers would be necessary. Teachers' personality ratings resulted in a general Disagreeable group that included individuals nominated as popular by peers and individuals reported as rejected by peers. This differentiation between rejected and popular children would not be observed based on teacher personality ratings alone. Thus, additional data from peers would be required to identify the children in this group who might benefit most from early intervention.

Limitations and Directions for Future Research

Although there are many benefits of the present study, several limitations are noteworthy and must be addressed in future studies. First, data collected in the current study were collected at one point in time for a group of children in middle childhood. Conclusions regarding the

development of personality, especially related to the continuity and change of personality group membership, cannot be drawn from these data. Furthermore, the personality cluster solution derived in this study may or may not have utility in explaining individual differences of individuals of different ages. Future studies should collect data from individuals of various ages and over an extended period of time to determine if the personality types observed in middle childhood can be found at other ages and if personality type membership at one time is stable or in some way predicts personality type membership at a later time.

Another limitation of the current study is that it relies on the use of cluster analysis to elucidate an underlying personality typology. Cluster analysis is very sensitive to the characteristics of the sample being analyzed, and different cluster solutions can be found using different methods of analysis, using different samples of individuals, or simply by placing the individuals in a sample in a different order and conducting the analysis again (Aldenderfer & Blashfield, 1984). However, examining a given cluster solution using external variables (i.e., variables not used in the clustering solution) and replicating a cluster solution with an independent sample are two ways of ensuring that a derived typology reflects underlying individual and group differences rather than being an artifact of the method of analysis used (Aldenderfer & Blashfield). Thus, future research must replicate the cluster structure derived in the current study before definitive conclusions can be drawn regarding the structure of teacher ratings of children's personalities. Additional variables assessing the external validity of the cluster solution, such as measures of psychopathology and academic achievement (rather than teacher perceptions of Conscientiousness/Intellect), should be obtained as well.

Finally, more information is needed regarding the behavioral, social, and emotional characteristics of children in the Disagreeable group. Since this group has not been found in

other studies, whereas some form of the other personality clusters found in the current study have been shown in previous research, it is essential to understand more about the qualities and characteristics of this group. First, it is important to determine if this group will replicate in an independent sample. If the group does not replicate, perhaps the unique qualities of the sample used in the current study account for the presence of this group. If the Disagreeable is found in subsequent studies, however, the argument can be made that this group is essential in understanding the structure of personality differences. Next, the relationship between individual variables and teacher variables should be examined. That is, data should be collected from multiple sources to determine if this personality type can be derived from teacher report only or if it can be replicated in studies of parents' and others' reports of personality. Finally, more information regarding the social outcomes of individuals in this group is necessary. Although results of the current study indicate that these individuals are seen as popular and dominant, information is not available regarding the characteristics of Disagreeable individuals that differentiates those who are disliked and have few friends from those who are popular and have friends.

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Appendix A

Inventory of Child Individual Differences-Teacher Short Form (ICID-TS)

Please read each statement. Look at the scale and circle the number that corresponds to the degree that you think the statement describes the child in comparison to other children his/her age.

1 = Much less than the average child or not at all

2 = Less than in the average child

3 = Slightly less than in the average child

4 = Same as in the average child

5 = Slightly more than in the average child

6 = More than in the average child

7 = Much more than in the average child

This child...

1. Is loving.....	1	2	3	4	5	6	7
2. Is happy.....	1	2	3	4	5	6	7
3. Is obedient.....	1	2	3	4	5	6	7
4. Has short attention span.....	1	2	3	4	5	6	7
5. Is afraid of a lot of things.....	1	2	3	4	5	6	7
6. Is mean.....	1	2	3	4	5	6	7
7. Is self-disciplined.....	1	2	3	4	5	6	7
8. Is strong-willed.....	1	2	3	4	5	6	7
9. Is withdrawn.....	1	2	3	4	5	6	7
10. Is interested in new things.....	1	2	3	4	5	6	7
11. Is quick to learn.....	1	2	3	4	5	6	7
12. Is sociable.....	1	2	3	4	5	6	7
13. Is energetic.....	1	2	3	4	5	6	7
14. Is irritable.....	1	2	3	4	5	6	7
15. Is organized.....	1	2	3	4	5	6	7
16. Is sensitive to others' feelings.....	1	2	3	4	5	6	7
17. Is cheerful.....	1	2	3	4	5	6	7
18. Is dependable and trustworthy.....	1	2	3	4	5	6	7
19. Is easily distracted.....	1	2	3	4	5	6	7
20. Is fearful.....	1	2	3	4	5	6	7
21. Is uncooperative.....	1	2	3	4	5	6	7
22. Is a hard worker.....	1	2	3	4	5	6	7
23. Is stubborn.....	1	2	3	4	5	6	7

24.	Is slow to warm up to new people or situations.....	1	2	3	4	5	6	7
25.	Is curious.....	1	2	3	4	5	6	7
26.	Has a good memory.....	1	2	3	4	5	6	7
27.	Is friendly.....	1	2	3	4	5	6	7
28.	Is always on the move.....	1	2	3	4	5	6	7
29.	Is quick-tempered.....	1	2	3	4	5	6	7
30.	Keeps things neat and tidy.....	1	2	3	4	5	6	7
31.	Is sweet.....	1	2	3	4	5	6	7
32.	Is affectionate.....	1	2	3	4	5	6	7
33.	Is cooperative.....	1	2	3	4	5	6	7
34.	Forgets things easily.....	1	2	3	4	5	6	7
35.	Lacks confidence.....	1	2	3	4	5	6	7
36.	Is selfish.....	1	2	3	4	5	6	7
37.	Has a drive to do better.....	1	2	3	4	5	6	7
38.	Is hard-headed.....	1	2	3	4	5	6	7
39.	Has difficulty making friends.....	1	2	3	4	5	6	7
40.	Shows interest in everything.....	1	2	3	4	5	6	7
41.	Has good thinking abilities.....	1	2	3	4	5	6	7
42.	Is outgoing.....	1	2	3	4	5	6	7
43.	Is active physically.....	1	2	3	4	5	6	7
44.	Gets angry easily.....	1	2	3	4	5	6	7
45.	Does things carefully and with thought.....	1	2	3	4	5	6	7
46.	Is insecure.....	1	2	3	4	5	6	7
47.	Likes to be the center of attention.....	1	2	3	4	5	6	7
48.	Is shy.....	1	2	3	4	5	6	7
49.	Has a sense of humor.....	1	2	3	4	5	6	7
50.	Easily adapts to new situations.....	1	2	3	4	5	6	7
51.	Is moody.....	1	2	3	4	5	6	7
52.	Is a joy to be with.....	1	2	3	4	5	6	7
53.	Wants things her own way.....	1	2	3	4	5	6	7
54.	Loves to be with other people.....	1	2	3	4	5	6	7
55.	Manipulates to get her own way.....	1	2	3	4	5	6	7
56.	Makes friends easily.....	1	2	3	4	5	6	7
57.	Likes to take charge.....	1	2	3	4	5	6	7
58.	Has a lot of friends.....	1	2	3	4	5	6	7
59.	Gives in to others.....	1	2	3	4	5	6	7
60.	Is lively and enthusiastic.....	1	2	3	4	5	6	7
61.	Is a leader.....	1	2	3	4	5	6	7

Appendix B

ICID-TS Items Loading on Each of the Four Factors (Based on Butzon et al., 2007)

Factor Name	Items
Conscientiousness/Intellect	11. Is quick to learn 41. Has good thinking abilities 26. Has a good memory 22. Is a hard worker 37. Has a drive to do better 45. Does things carefully and with thought 15. Is organized 40. Shows interest in everything 10. Is interested in new things 7. Is self-disciplined 34. Forgets things easily (R) 30. Keeps things neat and tidy 19. Is easily distracted (R) 4. Has a short attention span (R) 50. Easily adapts to new situations 25. Is curious
Disagreeableness	53. Wants things her own way 55. Manipulates to get her own way

- 29. Is quick-tempered
- 44. Gets angry easily
- 38. Is hard-headed
- 6. Is mean
- 23. Is stubborn
- 51. Is moody
- 14. Is irritable
- 36. Is selfish
- 21. Is uncooperative
- 47. Likes to be the center of attention
- 57. Likes to take charge
- 16. Is sensitive to others' feelings (R)
- 8. Is strong-willed
- 60. Is lively and enthusiastic
- 27. Is friendly
- 17. Is cheerful
- 13. Is energetic
- 42. Is outgoing
- 32. Is affectionate
- 56. Makes friends easily
- 1. Is loving
- 12. Is sociable
- 2. Is happy

Extraversion

Neuroticism

- 54. Loves to be with other people
 - 58. Has a lot of friends
 - 28. Is always on the move
 - 49. Has a sense of humor
 - 20. Is fearful
 - 35. Lacks confidence
 - 5. Is afraid of a lot of things
 - 46. Is insecure
 - 9. Is withdrawn
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