

1

EMERGING PERSONALITY IN CHILDHOOD AND ADOLESCENCE: IMPLICATIONS FOR THE DEVELOPMENT OF NARCISSISM AND MACHIAVELLIANISM

JENNIFER L. TACKETT AND SARAH MACKRELL

As long as psychological researchers have worked toward characterizing and understanding human personality, the belief has existed that individual differences can yield important information that can aid in the prediction of specific behaviors or outcomes. Childhood personality offers the potential to better understand, even predict, outcomes such as academic achievement, success in interpersonal relationships, and resiliency to the development of psychopathology. Increased attention to individual differences in children will have significant implications at the level of individual outcomes but also for outcomes at the level of the family, school, neighborhood, and society as a whole. The theoretical history and emerging evidence regarding the relevance of narcissism and Machiavellianism in the psychological functioning of children are presented in this volume. Here, we briefly set the stage for this discussion by describing important issues for conceptualizing individual differences in childhood and adolescence.

A PERSONALITY TAXONOMY FOR YOUTH

Researchers have noted conceptual complications in establishing age-appropriate models of personality structure in childhood when developmental changes are occurring rapidly (Martin, Wisenbaker, & Huttunen, 1994). In recent years, an increasing number of attempts have been made to better understand how a taxonomy of personality in childhood might be structured. Much of this work has been theoretical in nature, providing updated integrated reviews of the literature (e.g., Caspi, Roberts, & Shiner, 2005; Shiner, 1998; Tackett, 2006; Tackett & Krueger, 2005). This work also includes two notable attempts at creating an empirically based measure for personality in childhood (Halverson et al., 2003; Mervielde & De Fruyt, 2002) and a recent empirical study examining the hierarchical structure of personality in middle childhood (Tackett, Krueger, Iacono, & McGue, 2008). Taken together, these works converge on a higher order model for childhood personality that largely resembles the five-factor model (FFM; Costa & McCrae, 1998; Halverson et al., 2003; Mervielde & De Fruyt, 2002). The five factors in the FFM are Extraversion, Agreeableness, Neuroticism, Conscientiousness, and Openness to Experience (e.g., Goldberg, 1990). Extraversion is a trait characterized by sociability, talkativeness, and energy. Agreeableness is represented by characteristics such as friendliness, cooperativeness, and empathy. Neuroticism is characterized by anxiety, passivity, and depression. Conscientiousness includes characteristics such as diligence, self-discipline, and responsibility. Openness to Experience is characterized by originality and holding nontraditional beliefs.

Some remaining questions that should be addressed in future work concern the higher order traits of agreeableness and openness in particular, with some indications that their analogs in childhood appear to be defined more narrowly than their adult model counterparts (Halverson et al., 2003; Mervielde & De Fruyt, 2002; Tackett et al., 2008). Specifically, agreeableness typically emerges as agreeable compliance in younger age groups, although this is the likely domain under which lower order traits such as narcissism and Machiavellianism would fall. For example, measures of childhood narcissism have shown connections with aggressive tendencies (Barry et al., 2007; Thomaes, Stegge, Bushman, Olthof, & Denissen, 2008). Work investigating features of adolescent psychopathy most likely related to narcissism (e.g., glibness, interpersonally manipulative, lacking empathy) has found a relationship primarily with low agreeableness as well (Lynam et al., 2005). Thus, work toward integrating narcissism and Machiavellianism into broader structural models may also serve to broaden the agreeableness construct and rectify current measurement limitations in childhood personality research.

Further, establishing an overarching structure requires demonstration of reliability, stability, and utility of such traits. Specifically, longitudinal data are

necessary to establish whether such a structure is stable across the entire childhood period. This issue certainly holds for narcissism and Machiavellianism, which could be construed as pathological throughout the life span or as exaggerations of normal developmental processes during specific developmental periods such as adolescence (Tackett, Balsis, Oltmanns, & Krueger, 2009). Thus, although research is beginning to reveal a potential structural model of higher order traits in youth, many empirical questions remain regarding the content and measurement of such constructs, identification of a general structure of lower order traits, and demonstration of their potential utility. Recent research has provided an additional bridge across the developmental period of adolescence, with cross-cultural evidence that the FFM provides a psychometrically sound framework for describing individual differences in youth (De Fruyt et al., 2009).

To further complicate the application of adult individual difference research to children, much work investigating individual differences in children has been conducted within the domain of temperament, whereas similar research with adult populations has investigated the domain of personality. However, distinctions between these domains remain unclear (e.g., Caspi et al., 2005; Tackett, 2006), in part because of both a lack of consensus regarding the structural model of personality to be investigated in younger age groups and a lack of empirical investigations linking these domains. Temperament is typically defined as a small subset of traits that are largely biologically influenced, are present from birth, and represent the whole of personality at very early ages (Rothbart & Bates, 1998; Shiner, 1998; Tackett, 2006). Whereas adult personality researchers have largely converged on a five-factor model of personality, researchers interested in younger populations have been and remain much more fragmented in their perspectives on the primary constructs to study (Caspi et al., 2005). To some extent, this disagreement may reflect a tendency to assign different names to similar constructs, which results in a fragmented literature with impaired communication across measures, researchers, and results (Rothbart, Ahadi, & Evans, 2000). Thus, there is a clear need for a unifying framework in childhood and adolescence to allow organization and integration of empirical findings and to facilitate communication between researchers within the field and in other disciplines (Tackett, 2006), both for higher and lower order individual difference domains. For example, efforts to derive child measures of narcissism directly from adult tools (see Chapter 4, this volume) may facilitate the integration of empirical findings across developmental periods, but further work is needed to determine if such an integration best captures the manifestation of narcissism prior to adulthood.

One important distinction between researchers in these areas is on the number of higher order traits to study across the life span. Specifically,

temperament models in early childhood have typically measured a three-factor structure of traits reflecting positive emotionality (similar to Extraversion in the FFM), negative emotionality (similar to Neuroticism), and effortful control (similar to Conscientiousness/constraint; Rothbart, Ahadi, Hershey, & Fisher, 2001). It is important that this structure is theoretically overlapping with prominent three-factor structures of personality in adulthood (Tellegen, 2000). It is likely that the fourth factor in the FFM, Agreeableness, is also related to effortful control (Caspi & Shiner, 2006). The fifth factor, Openness to Experience, is perhaps the most controversial, with no clear counterpart in temperament models and some suggestions that it does not emerge as a personality trait until later in life (Lamb et al., 2002). The debate over the best number of factors at the higher order level parallels a similar debate that previously occurred in the adult literature (Markon, Krueger, & Watson, 2005). A recent study of the hierarchical nature of higher order traits in middle childhood (Tackett et al., 2008) paralleled recent work in adults (Markon et al., 2005) by demonstrating empirical relationships among three-, four-, and five-factor models of personality/temperament and by emphasizing that these models should not be considered mutually exclusive of one another.

IMPORTANCE OF LOWER ORDER TRAITS

A specific area that is underdeveloped within this relatively new domain of research inquiry is the content and structure of lower order personality traits in middle childhood. For example, conscientiousness might be broken down into more narrowly defined categories, such as orderliness, achievement orientation, control over one's surroundings, and norm-abiding tendencies. Relying on higher order personality traits in the prediction of behavior may result in the loss of important information specific to each lower order trait. Currently, lower order traits or *facets* have been identified in the developing measures of childhood personality (Halverson et al., 2003; Mervielde & De Fruyt, 2002), but there is no consensus on which lower order traits should be included in a comprehensive taxonomy or whether such lower order personality traits in childhood might offer predictive utility beyond higher order personality traits at younger ages. Although research thus far has focused on establishing a higher order structure of personality in middle childhood, with less attention paid to identifying and measuring lower order traits, research on adult populations has shown that lower order personality traits may offer more information and better discriminant validity when predicting behavioral outcomes (e.g., Paunonen & Ashton, 2001), with preliminary evidence that they also offer incremental validity in prediction of outcomes in middle child-

hood (e.g., Eisenberg et al., 2004; Tackett, 2007). Focusing only on the higher order trait level may mask such relationships.

Psychopathy, narcissism, and Machiavellianism have been dubbed the *Dark Triad* of personality (Paulhus & Williams, 2002), yet the research on psychopathy in youth has so far out-paced that of the other two corners of the triad—the following presentations notwithstanding. Research has supported a link between personality and psychopathic characteristics in children and adolescents, specifically with callous-unemotional traits negatively related to the Agreeable and Conscientious dimensions of the Big Five (Essau, Sasagawa, & Frick, 2006). One study found that Machiavellianism scores were related to high levels of psychoticism (a personality trait subsuming some aggressive/antagonistic characteristics) and neuroticism in middle childhood (Sutton & Keogh, 2001). These findings, along with research noting moderate stability of psychopathic characteristics, including psychopathy-linked narcissism (Barry, Barry, Deming, & Lochman, 2008; Lynam, Caspi, Moffitt, Loeber, & Stouthamer-Loeber, 2007), during childhood and into adulthood emphasize the importance of further study on early precursors to psychopathic characteristics. Conceptualizing the so-called Dark Triad within existing personality theory frameworks may aid such efforts. This early work already offers some suggestions regarding how narcissistic and Machiavellian traits might be integrated into broader structural models of childhood personality, but further work in this area is clearly needed.

MEASUREMENT OF PERSONALITY IN YOUTH

To date, personality measurement in middle childhood and early adolescence has been undermined by flaws idiosyncratic to particular measures and/or informants. The most common form of measurement in personality research is the paper–pencil questionnaire. In recent work on childhood personality, questionnaires have been designed primarily for parent or teacher report. In research on children, a number of measurement-related issues arise, with a crucial question being, Who reports best on what? In the childhood psychopathology literature, children’s self-reports are often considered too error ridden to provide reliable and valid information. On the other hand, it could be argued that some constructs—narcissism among them—may be uniquely suited for self-report in that self-perception is most accurately assessed by one’s own report. Further, reports obtained from different informants on childhood psychopathology are often at odds with one another (e.g., Achenbach & McConaughy, 1997).

The question of informants is accompanied by the related question of how the information should be gathered. Researchers have used innovative

laboratory methods to collect information on personality, for example, by crafting behavioral tasks designed to elicit variable responses as a function of temperament (e.g., Murray & Kochanska, 2002) and by having observers rate “thin slices” of individual behavior elicited in specific laboratory situations (e.g., Borkenau, Mauer, Riemann, Spinath, & Angleitner, 2004). However, similar to themes noted previously, these more extensive observational methods have focused on early childhood and adulthood with little evidence of how they might apply to middle childhood. The question of measurement may be particularly relevant to current disagreement about which higher order and lower order traits to study in early age groups (Tackett et al., 2008). For example, the difficulty in differentiating aspects of agreeableness from conscientiousness in early childhood may partly reflect reporter bias on the part of the parents and teachers rather than a true lack of agreeableness-related behaviors at these ages. What we are left with, therefore, is an undeniable need to critically evaluate the methods used to assess individual differences in youth on psychometric, procedural, and theoretical grounds.

PERSONALITY–PSYCHOPATHOLOGY RELATIONSHIPS IN CHILDHOOD AND ADOLESCENCE

Continued work on the structure and measurement of childhood personality is critical to establish the potential of early individual differences to predict important outcomes such as psychopathology. Several models have been proposed to explain the relationship between personality and psychopathology (e.g., Tackett, 2006). We focus on two that have accumulated the most evidence in children and adolescents: the vulnerability or predisposition model and the spectrum or continuity perspective. The vulnerability model posits that certain personality or temperament traits predispose (or protect against) the development of particular forms of psychopathology in some contexts while exerting negligible effects in other contexts (Nigg, 2006; Tackett, 2006). In this model, personality or temperament constitutes the vulnerability for psychopathology, but other environmental factors or multiple trait influences are required for pathology to develop (Nigg, 2006).

The spectrum model of personality and psychopathology proposes that personality/temperament traits and manifestations of psychopathology lie on a continuum such that the relationship between the two is dimensional (Nigg, 2006; Tackett, 2006). One potential conceptualization from a spectrum perspective is that *psychopathology* may refer to more specific, extreme behaviors that result in impaired functioning, whereas *personality* and *temperament* refer to broader, more normative behavior (Tackett, 2006). The interested reader is referred to several recent reviews that have focused on summarizing evi-

dence for these relationships in children and adolescents (Nigg, 2006; Salekin & Averett, 2008; Tackett, 2006). We briefly discuss the implications of these models for understanding the relation between personality and externalizing problems in youth.

Vulnerability/Predisposition Model

Child and adolescent behavioral pathology classified as “externalizing” includes conduct problems, oppositional defiant behaviors, symptoms of attention-deficit/hyperactivity, and substance use (Tackett, 2006). From a vulnerability perspective, childhood personality traits identified as predisposing an individual for later externalizing psychopathology are impulsivity (i.e., low conscientiousness) and neuroticism (e.g., Farrington & West, 1993; Muris & Ollendick, 2005). Supporting a vulnerability perspective, work on subtypes of antisocial behavior differentiating early-onset, chronic offenders from adolescent-onset, desisting offenders has shown differential associations with personality traits (Tackett, 2006). Individuals with life-course persistent antisocial behavior exhibit higher levels of negative emotionality in childhood and lower levels of disinhibition in adolescence compared with adolescent-limited individuals (Moffitt, Caspi, Dickson, Silva, & Stanton, 1996). A resiliency model may also be seen as a variant of the vulnerability model in the other direction—an antivulnerability explanation. That is, personality traits may also exert an influence by protecting individuals from developing psychopathology. For example, high effortful control has been noted for its protective effects in relation to stressful life events (Muris & Ollendick, 2005). In children characterized by high levels of emotionality, only those with low levels of effortful control experience difficulty dealing with their negative feelings leading to avoidance behavior, aggression, and depression. Children with high levels of effortful control may have the ability to regulate their negative emotions through the use of flexible coping strategies (Lengua & Long, 2002).

Spectrum Model

The dimensional approach to modeling externalizing disorders and personality has also emphasized the personality trait of conscientiousness (specifically referring to low conscientiousness). Psychobiological correlates (e.g., neurotransmitter functioning, psychophysiological measures) common to externalizing disorders and personality suggest the potential for shared underlying biological influences and etiologic factors (Tackett, 2006). In addition to psychobiological correlates, other support for the spectrum model includes findings from genetically informed studies. Findings have suggested

that a highly heritable externalizing or behavioral disinhibition dimension may underlie externalizing pathology and disinhibited personality characteristics (Tackett, 2006). Similarly, a lack of discontinuity in etiology or behavior for many childhood disorders has been found (Nigg, 2006). For example, one suggested conceptualization of attention-deficit/hyperactivity disorder is as a continuous dimension of inattentive and impulsive behavior (Levy, Hay, McStephen, Wood, & Waldman, 1997; Nigg, 2006).

CONCLUSION AND FUTURE DIRECTIONS

In this chapter, we have briefly outlined recent progress as well as gaps in knowledge regarding the structure and measurement of childhood and adolescent personality. Recent decades have shown a dramatic increase in the number of researchers working on these topics, and along with this increase has come a substantially advanced understanding of early personality traits (e.g., Caspi & Shiner, 2006). The largest area of progress has been in the domain of an established higher order structure of childhood personality traits (e.g., Tackett et al., 2008) that maps on to personality structure in adolescence (De Fruyt et al., 2009), although future investigations must directly link this work with models of temperament. The area of lower order traits, although potentially holding great information in predicting later maladaptivity, currently lags behind and is likely to be a target for future research in this area, a prediction to which the remaining chapters in this volume attest. These difficulties in identification and measurement subsequently hinder our understanding of personality–psychopathology relationships in these age groups. Primary higher order traits have been linked to both internalizing and externalizing psychopathology (Nigg, 2006; Tackett, 2006), although differentiation between vulnerability and spectrum processes has only just begun.

Research on adult populations has made great strides in advancing a hierarchical spectrum conceptualization for both internalizing (Watson, 2005) and externalizing (Krueger et al., 2002) disorders that incorporate personality alongside symptoms of psychopathology. This work has made such a large impact on the field that it has been a driving force in ongoing revisions to an overarching categorization of mental disorders in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text revision; *DSM–IV–TR*; American Psychiatric Association, 2000). Despite the fact that the internalizing/externalizing classification approach originated out of work with children (Achenbach, 1966), developmental issues have not played a large role in these recent changes (Tackett, in press). Greater empirical communication among temperament and personality researchers, as well as clinical scientists

and developmental scientists, is needed to inform future editions of the *DSM* and provide links among these constructs across the life span.

A related area for future study is a better understanding of the developmental process vis-à-vis interactions with the environment (Salekin & Averett, 2008; Sameroff & Mackenzie, 2003; Tackett, in press). The emphasis by developmental researchers on individual adaptation within a complex and continuously changing environment (Jenkins, 2008) is likely another dividing line between approaches taken by temperament and personality researchers. Recent studies focusing on environmental risk factors have provided early evidence for the importance of Person \times Environment interactions in the area of child maltreatment (Caspi et al., 2002), parenting (De Clercq et al., 2008; Lengua, 2006), and deviant peer groups (Rowe, Maughan, Worthman, Costello, & Angold, 2004). Personality and temperament are likely to interact with environmental risk factors in complex ways, requiring forward-thinking research designs with sophisticated methodology to begin untangling various pathways to maladaptation as well as resilience.

The reader is advised to consider the following chapters on narcissism and Machiavellianism in light of the issues discussed here. For example, it is likely that narcissism and Machiavellianism can be easily integrated into broad structural models of personality/temperament traits, potentially as facets of the broader agreeableness domain. Specifically, many aspects of narcissism appear to be connected to interpersonal tendencies typically associated with agreeableness, such as “an adversarial orientation toward others” (Thomaes et al., 2008). Examples of such interpersonal features include interpersonal manipulation and a lack of empathy or concern for others, which may manifest in an inability (or refusal) to acknowledge the worth and value of others.

In addition, many of the measurement issues that have inhibited research progress on childhood personality will similarly apply to research on specific traits such as narcissism and Machiavellianism and are discussed in the remaining chapters. Furthermore, conceptualization of youth narcissism and Machiavellianism in terms of a vulnerability model may help identify environmental factors that promote or impede the development of the maladaptive behavioral correlates of these constructs (e.g., see Chapter 7, this volume). Discussions such as those provided by Slaughter (Chapter 10, this volume) on the measurement of Machiavellianism may promote further investigations of this construct within a spectrum model framework. It is important for researchers working on multiple levels of childhood individual differences to pursue these topics in concert and make greater efforts to integrate findings across studies in order to make greater advances in the field and promote optimal outcomes for youth whose characteristics otherwise place them at risk of problematic outcomes.

REFERENCES

- Achenbach, T. M. (1966). The classification of children's psychiatric symptoms: A factor-analytic study. *Psychological Monographs*, 80(7), 1–37.
- Achenbach, T. M., & McConaughy, S. H. (1997). *Empirically based assessment of child and adolescent psychopathology: Practical applications* (2nd ed.). Thousand Oaks, CA: Sage.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.
- Barry, T. D., Barry, C. T., Deming, A. M., & Lochman, J. E. (2008). Stability of psychopathic characteristics in childhood: The influence of social relationships. *Criminal Justice and Behavior*, 35, 244–262. doi:10.1177/0093854807310508
- Barry, T. D., Thompson, A., Barry, C. T., Lochman, J. E., Adler, K., & Hill, K. (2007). The importance of narcissism in predicting proactive and reactive aggression in moderately to highly aggressive children. *Aggressive Behavior*, 33, 185–197. doi:10.1002/ab.20198
- Borkenau, P., Mauer, N., Riemann, R., Spinath, F. M., & Angleitner, A. (2004). Thin slices of behavior as cues of personality and intelligence. *Journal of Personality and Social Psychology*, 86, 599–614. doi:10.1037/0022-3514.86.4.599
- Caspi, A., McClay, J., Moffitt, T. E., Mill, J., Martin, J., Craig, I. W., . . . Poulton, R. (2002, August 2). Role of genotype in the cycle of violence in maltreated children. *Science*, 297, 851–854. doi:10.1126/science.1072290
- Caspi, A., Roberts, B. W., & Shiner, R. L. (2005). Personality development: Stability and change. *Annual Review of Psychology*, 56, 453–484. doi:10.1146/annurev.psych.55.090902.141913
- Caspi, A., & Shiner, R. L. (2006). Personality development. In W. Damon & R. Lerner (Series Eds.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 300–365). New York, NY: Wiley.
- Costa, P. J. T., & McCrae, R. R. (1992). Four ways five factors are basic. *Personality and Individual Differences*, 13, 653–655.
- De Clercq, B., Van Leeuwen, K., De Fruyt, F., Van Hiel, A., & Mervielde, I. (2008). Maladaptive personality traits and psychopathology in childhood and adolescence: The moderating effect of parenting. *Journal of Personality*, 76, 357–383. doi:10.1111/j.1467-6494.2007.00489.x
- De Fruyt, F., De Bolle, M., McCrae, R. R., Terracciano, A., Costa, Jr., P. T., & Collaborators of the Adolescent Personality Profiles of Cultures Project. (2009). Assessing the universal structure of personality in early adolescence. *Assessment*, 16, 301–311. doi:10.1177/1073191109333760
- Eisenberg, N., Spinrad, T. L., Fabes, R. A., Reiser, M., Cumberland, A., Shepard, S. A., . . . Thompson, M. (2004). The relations of effortful control and impulsivity to children's resiliency and adjustment. *Child Development*, 75, 25–46. doi:10.1111/j.1467-8624.2004.00652.x

- Essau, C. A., Sasagawa, S., & Frick, P. J. (2006). Callous-unemotional traits in a community sample of adolescents. *Assessment, 13*, 454–469. doi:10.1177/1073191106287354
- Farrington, D. P., & West, D. J. (1993). Criminal, penal and life histories of chronic offenders: Risk and protective factors and early identification. *Criminal Behaviour and Mental Health, 3*, 492–523.
- Goldberg, L. R. (1990). An alternative “description of personality”: The Big-Five factor structure. *Journal of Personality and Social Psychology, 59*, 1216–1229. doi:10.1037/0022-3514.59.6.1216
- Halverson, C. F., Havill, V. L., Deal, J., Baker, S. R., Victor, J. B., Pavlopoulos, V., . . . Wen, L. (2003). Personality structure as derived from parental ratings of free descriptions of children: The inventory of child individual differences. *Journal of Personality, 71*, 995–1026. doi:10.1111/1467-6494.7106005
- Jenkins, J. (2008). Psychosocial adversity and resilience. In M. Rutter, D. Bishop, D. Pine, S. Scott, J. Stevenson, E. Taylor, & A. Thapar (Eds.), *Rutter's handbook of child and adolescent psychiatry* (5th ed., pp. 300–365). Oxford, England: Blackwell. doi:10.1002/9781444300895.ch25
- Krueger, R. F., Hicks, B. M., Patrick, C. J., Carlson, S. R., Iacono, W. G., & McGue, M. (2002). Etiologic connections among substance dependence, antisocial behavior, and personality: Modeling the externalizing spectrum. *Journal of Abnormal Psychology, 111*, 411–424. doi:10.1037/0021-843X.111.3.411
- Lamb, M. E., Chuang, S. S., Wessels, H., Broberg, A. G., & Hwang, C. P. (2002). Emergence and construct validation of the Big Five factors in early childhood: A longitudinal analysis of their ontogeny in Sweden. *Child Development, 73*, 1517–1524. doi:10.1111/1467-8624.00487
- Lengua, L. J. (2006). Growth in temperament and parenting as predictors to adjustment during children's transition to adolescence. *Developmental Psychology, 42*, 819–832. doi:10.1037/0012-1649.42.5.819
- Lengua, L. J., & Long, A. C. (2002). The role of emotionality and self-regulation in the appraisal-coping process: Tests of direct and moderating effects. *Journal of Applied Developmental Psychology, 23*, 471–493. doi:10.1016/S0193-3973(02)00129-6
- Levy, F., Hay, D. A., McStephen, M., Wood, C., & Waldman, I. (1997). Attention-deficit hyperactivity disorder: A category or continuum? Genetic analysis of a large-scale twin study. *Journal of the American Academy of Child and Adolescent Psychiatry, 36*, 737–744. doi:10.1097/00004583-199706000-00009
- Lynam, D. R., Caspi, A., Moffitt, T. E., Loeber, R., & Stouthamer-Loeber, M. (2007). Longitudinal evidence that psychopathy scores in early adolescence predict adult psychopathy. *Journal of Abnormal Psychology, 116*, 155–165. doi:10.1037/0021-843X.116.1.155
- Lynam, D. R., Caspi, A., Moffitt, T. E., Raine, A., Loeber, R., & Stouthamer-Loeber, M. (2005). Adolescent psychopathy and the Big Five: Results from two samples. *Journal of Abnormal Child Psychology, 33*, 431–443. doi:10.1007/s10648-005-5724-0

- Markon, K. E., Krueger, R. F., & Watson, D. (2005). Delineating the structure of normal and abnormal personality: An integrative hierarchical approach. *Journal of Personality and Social Psychology*, 88, 139–157. doi:10.1037/0022-3514.88.1.139
- Martin, R. P., Wisenbaker, J., & Huttunen, M. (1994). Review of factor analytic studies of temperament measures based on the Thomas–Chess structural model: Implications for the Big Five. In C. F. Halverson, G. A. Geldolph, & R. P. Roy (Eds.), *The developing structure of temperament and personality from infancy to adulthood* (pp. 157–172). Hillsdale, NJ: Erlbaum.
- Mervielde, I., & De Fruyt, F. (2002). Assessing children’s traits with the hierarchical personality inventory for children. In B. de Raad & M. Perugini (Eds.), *Big Five assessment* (pp. 129–142). Ashland, OH: Hogrefe & Huber.
- Moffitt, T. E., Caspi, A., Dickson, N., Silva, P., & Stanton, W. (1996). Childhood-onset versus adolescent-onset antisocial conduct problems in males: Natural history from ages 3 to 18 years. *Development and Psychopathology*, 8, 399–424. doi:10.1017/S0954579400007161
- Muris, P., & Ollendick, T. H. (2005). The role of temperament in the etiology of child psychopathology. *Clinical Child and Family Psychology Review*, 8, 271–289. doi:10.1007/s10567-005-8809-y
- Murray, K. T., & Kochanska, G. (2002). Effortful control: Factor structure and relation to externalizing and internalizing behaviors. *Journal of Abnormal Child Psychology*, 30, 503–514. doi:10.1023/A:1019821031523
- Nigg, J. T. (2006). Temperament and developmental psychopathology. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 47, 395–422. doi:10.1111/j.1469-7610.2006.01612.x
- Paulhus, D. L., & Williams, K. M. (2002). The Dark Triad of personality: Narcissism, Machiavellianism and psychopathy. *Journal of Research in Personality*, 36, 556–563. doi:10.1016/S0092-6566(02)00505-6
- Paunonen, S. V., & Ashton, M. C. (2001). Big Five factors and facets and the prediction of behavior. *Journal of Personality and Social Psychology*, 81, 524–539. doi:10.1037/0022-3514.81.3.524
- Rothbart, M. K., Ahadi, S. A., & Evans, D. E. (2000). Temperament and personality: Origins and outcomes. *Journal of Personality and Social Psychology*, 78, 122–135. doi:10.1037/0022-3514.78.1.122
- Rothbart, M. K., Ahadi, S. A., Hershey, K. L., & Fisher, P. (2001). Investigations of temperament at three to seven years: The Children’s Behavior Questionnaire. *Child Development*, 72, 1394–1408. doi:10.1111/1467-8624.00355
- Rothbart, M. K., & Bates, J. E. (1998). Temperament. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (5th ed., pp. 105–176). New York, NY: Wiley.
- Rowe, R., Maughan, B., Worthman, C. M., Costello, E. J., & Angold, A. (2004). Testosterone, antisocial behavior, and social dominance in boys: Pubertal development and biosocial interaction. *Biological Psychiatry*, 55, 546–552. doi:10.1016/j.biopsych.2003.10.010

- Salekin, R. T., & Averett, C. A. (2008). Personality in childhood and adolescence. In M. Hersen & A. M. Gross (Eds.), *Handbook of clinical child psychology: Vol. 2. Children and adolescents* (pp. 351–385). New York, NY: Wiley.
- Sameroff, A. J., & Mackenzie, M. J. (2003). Research strategies for capturing transactional models of development: The limits of the possible. *Development and Psychopathology*, *15*, 613–640. doi:10.1017/S0954579403000312
- Shiner, R. L. (1998). How shall we speak of children's personalities in middle childhood? A preliminary taxonomy. *Psychological Bulletin*, *124*, 308–332. doi:10.1037/0033-2909.124.3.308
- Sutton, J., & Keogh, E. (2001). Components of Machiavellian beliefs in children: Relationships with personality. *Personality and Individual Differences*, *30*, 137–148. doi:10.1016/S0191-8869(00)00017-9
- Tackett, J. L. (2006). Evaluating models of the personality-psychopathology relationship in children and adolescents. *Clinical Psychology Review*, *26*, 584–599. doi:10.1016/j.cpr.2006.04.003
- Tackett, J. L. (2007, September). *Personality-psychopathology relationships in childhood: A multi-trait multi-disorder investigation*. Talk presented at the 10th annual conference of the International Society for the Study of Personality Disorders, The Hague, the Netherlands.
- Tackett, J. L. (in press). Toward an externalizing spectrum in DSM–V: Incorporating developmental concerns. *Child Development Perspectives*.
- Tackett, J. L., Balsis, S., Oltmanns, T. F., & Krueger, R. F. (2009). A unifying perspective on personality pathology across the lifespan: Developmental considerations for DSM–V. *Development and Psychopathology*, *21*, 687–713. doi:10.1017/S095457940900039X
- Tackett, J. L., & Krueger, R. F. (2005). Interpreting personality as a vulnerability for psychopathology: A developmental approach to the personality–psychopathology relationship. In B. L. Hankin & J. R. Z. Abela (Eds.), *Development of psychopathology: A vulnerability-stress perspective* (pp. 199–214). Thousand Oaks, CA: Sage.
- Tackett, J. L., Krueger, R. F., Iacono, W. G., & McGue, M. (2008). Personality in middle childhood: A hierarchical structure and longitudinal connections with personality in late adolescence. *Journal of Research in Personality*, *42*, 1456–1462. doi:10.1016/j.jrp.2008.06.005
- Tellegen, A. (2000). *Manual of the Multidimensional Personality Questionnaire*. Minneapolis: University of Minnesota Press.
- Thomaes, S., Stegge, H., Bushman, B. J., Olthof, T., & Denissen, J. (2008). Development and validation of the Childhood Narcissism Scale. *Journal of Personality Assessment*, *90*, 382–391. doi:10.1080/00223890802108162
- Watson, D. (2005). Rethinking the mood and anxiety disorders: A quantitative hierarchical model for DSM–V. *Journal of Abnormal Psychology*, *114*, 522–536. doi:10.1037/0021-843X.114.4.522