

DISPOSITIONAL FACTORS AND DISCLOSURE

DISPOSITIONAL FACTORS AND THE DISCLOSURE OF AUTOBIOGRAPHICAL  
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DISPOSITIONAL FACTORS AND DISCLOSURE

### **Abstract**

Disclosure of past personal experiences (i.e., autobiographical memories; AMs) is critical to clinical work as it provides essential material for assessment and psychotherapy. Previous research has explored some of the factors that contribute to increased disclosure. However, research directly examining the connection between dispositional factors (i.e., personality, temperament) and AM disclosures is sparse. The current study explored the relationship between dispositional factors and the disclosure of valenced (i.e., positive, negative) AMs among 8–10-year-old children. Fifty-four parent/child dyads participated in the study in which parents completed measures of their child’s personality/temperament (i.e., Extraversion, Openness, Agreeableness, Anxiety, Shyness, Sadness, Inhibitory control). Children also completed a measure of their self-perceived personality. During the study, children recalled/disclosed a self-selected positive and negative AM following a standard protocol. The AM disclosures were transcribed and then coded using LIWC (Boyd et al., 2022) into the following facets: Volume, Authenticity, Clout, Analytical thinking, and Insight. In this study, low parent-child concordance was observed on all personality variables. Also, valence of AMs was not relevant, except when it came to the Clout facet as participants were consistent in disclosing past experience for both positive and negative events. No significant correlations emerged between sadness or inhibitory control, and AM facets. However, significant relationships were found between other temperament and personality factors and AM facets. These relationships are discussed in terms of their role in serving as potential facilitators or obstacles to higher quality/quantity disclosures. Potential clinical implications, limitations of the study, and future direction are also addressed.

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### **Dispositional Factors and the Disclosure of Autobiographical Memories Among Children**

In the absence of client disclosure of memories related to personal experiences, there would be limited material for use in clinical assessment or psychotherapy. Autobiographical memory (AM) refers to the memory of personal events and consists of experiences recollected from an individual's life (Nelson, 1993). Client disclosure of AM is essential and fundamental to all clinical work. For instance, overall disclosure rates of child abuse (CA) victims are particularly low (an estimated 33% of victims disclose CA), which potentially hinders the therapist's ability to help the child process the possible traumatic experience (London et al., 2007). Furthermore, higher disclosure rates predict a decrease of symptoms in brief psychotherapy, suggesting that the early appraisal of factors related to self-disclosure tendencies could be beneficial (Sloan & Kahn, 2005). To date, however, this has only been studied in college students, and little is known about the disclosure of AMs among children.

AMs in the therapeutic context consist of memories related to the self (Nelson, 1993), such as recalling and disclosing a previous experience (e.g., conflict with a peer, physical abuse by a caregiver). Typically, by middle to late childhood, children can accurately produce and share AMs (O'Kearney et al., 2007). Quantity and quality are two dimensions of AM disclosure that are potentially important in clinical work (Caci et al., 2019; Posey et al., 2010). Factors related to the quantity and breadth include the amount of information (i.e., Volume/length) and details (i.e., Insight) shared during disclosure. Conversely, the quality of AM disclosure refers to the level of intimacy of the disclosure, such as honesty/personalness (i.e., Authenticity), confidence (i.e., Clout), and formalness/logicalness (i.e., Analytical thinking). In regard to therapy, client disclosures of specific AMs contribute to the development of a strong therapeutic alliance and provides the clinician with key opportunities to facilitate shifts to productive

emotional processing and the construction of new personal meanings and narratives. In interviews, such as forensic evaluations, AM disclosure may help to end the abuse, get help for the child, and prevent other children from becoming victims.

AM appears to serve three broad functions: directive, self, and social (Bluck, 2003). The directive function involves the usage of memories in problem-solving, as well as guiding thinking and behavior. The self-function involves the usage of memories in defining the self and identity. The social function involves the usage of memories when individuals share memories with others in order to facilitate communication and social bonding. Both the self-function and social function of AMs are of particular interest when considering the disclosure of valenced AMs to others. Valenced AMs refer to any personal experiences that are emotionally charged (e.g., positive or negative AMs; Rasmussen & Berntsen, 2010).

While research has examined constructs such as memory storage and retrieval related to disclosure (Rubin & Siegler, 2004), limited work has examined internal factors (i.e., dispositional traits) relevant to AMs disclosure, particularly in non-college populations. Dispositional traits (e.g., personality and temperament) are an enduring frame of reference through which individuals appraise and react to situations using a stable and consistent way of thinking, feeling, and behaving (Kushner, 2015). Personality is a set of traits that differentiate people from each other across a stable pattern in various cross-situational factors (Hampson, 2012). Personality traits encompass individual differences in regard to thoughts, feelings, and behaviors. Temperament and personality largely overlap as they both refer to individual differences that are stable across the lifespan (De Pauw et al., 2009). However, temperament is connected to strong genetic and neurobiological factors (Goldsmith et al. 1987). Thus, temperament is considered the part of personality that is representative of biologically-based

affect and the activation and attentional components of personality (Rothbart & Bates, 2006). Given the role of personality and temperament, understanding individual-level characteristics that may impact the disclosure of valenced AMs may benefit practitioners and forensic investigators as they consider approaches/protocols to facilitate treating and interviewing clients.

Memories of autobiographical events, or personal experiences that are often associated with self-defining memories, have been linked to an individual's underlying personality dispositions (Singer & Salovey, 1996). Some studies have examined the *usage* of AMs as they relate to personality, which provides a potential framework for understanding the relationship (Rasmussen & Berntsen, 2010). In a study by Rasmussen and Berntsen (2010), the Autobiographical Memory Questionnaire (AMQ; Greenberg & Rubin, 2003) was used to examine the properties of AMs as they relate to personality, specifically tapping into various neural systems (e.g., mentally traveling back in time to the original event, sensory imagery). Significant associations between specific personality traits and AMs emerged (discussed in detail below). However, research directly examining dispositional traits and AMs disclosure is sparse, particularly with children. Should dispositional traits prove to be related to differences in AM disclosure, this association could inform therapeutic practice initiatives (e.g., altering interview styles, format of interview/disclosure, added rapport building time, etc.).

One of the most prominent personality theories for dispositional traits is the Five-Factor Model (FFM), also known as the "Big Five" (Costa & McCrae, 1985). The FFM is a framework for understanding and classifying general personality structure that is common in the field of psychology (McCrae & Costa, 2008). The FFM originated within nonclinical samples to provide universal and comprehensive coverage of the major traits of personality in the overall population across the lifespan (Trull & Widiger, 2015). The FFM is based on a covariation of personality

traits that are robustly accounted for by five broad factors or dimensions: Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. These factors are based on the basic tenets of trait theory, which suggest that individuals have relatively enduring patterns of thoughts, feelings, and actions that cut across situations and settings (McCrae & Costa, 2008). Trait theories, such as the FFM, also suggest that individuals respond differently to situations based on their unique personality traits (Horstmann & Ziegler, 2020). The following Big Five traits are of interest in this proposed study as they are more directly related to interpersonal experiences such as disclosure: Extraversion, Openness, and Agreeableness.

*Extraversion* refers to general talkativeness, assertiveness, and energy, compared to introversion (McCrae & Costa, 1999). Research has also found a stable relationship between the social function of autobiographical memory and Extraversion (McLean et al., 2007). Specifically, Extraversion correlated positively with conversational rehearsal in an adult sample (Rasmussen & Berntsen, 2010). Individuals who spend more time in conversation and who find it more enjoyable have been found to have more conversations about their AMs (Rubin & Siegler, 2004).

*Openness* includes being fantasy-prone, creative, and independent-minded, as opposed to showing closedness to experience (McCrae & Costa, 1999). Higher Openness was associated with intensity, re-experiencing, consistency, and centrality of the autobiographical event to the individual's self-perception and narrative of concrete memories. Individuals with a higher rating on Openness have been found to reflect more on their inner experiences and are also more inclined to act on them (Rasmussen & Berntsen, 2010).

*Agreeableness* is defined as being sociable, trustful, and good-natured, compared to general antagonism (McCrae & Costa, 1999). No significant relationships between



Agreeableness and AM usage emerged (Rasmussen & Berntsen, 2010). However, a study examining participant disclosure on a social media platform, Facebook, found that agreeable individuals engage less in disclosure overall (Caci et al., 2019). The authors suggest that this relationship may be due to the high social comparison that typically individuals with high levels of Agreeableness possess. As a result, those high in Agreeableness tend to be sympathetic and compassionate in public, thus disclosing less information on their social media profile.

In addition to the relationship between Big Five traits and AM facets, the clinical relevance of personality and personality measures is important to consider. The FFM has been utilized for decades, however, it still has apparent contemporary use in clinical and forensic psychology. For example, Big Five measures have been used in police officer selection (Detrick & Chibnall, 2013). Also, in one study comparing the FFM and the Personality Inventory for DSM-5 (PID-5) domains in a clinical sample, all the FFM traits (except Openness) were significantly related to the maladaptive counterparts, including negative affectivity, detachment, and disinhibition (Few et al., 2013). This shows the clinical utility of the Big Five for relevant components of case conceptualization and treatment planning. Furthermore, dispositional traits among youth have been found to shape reactions to stressors as they influence emotional reactivity, environmental engagement, experiential perceptions, and coping styles (Kushner, 2015). Finally, while not frequently, clinicians that are a part of the American-Law Society Division of the American Psychological Association and diplomates in the American Board of Forensic Psychology have endorsed using the Revised NEO–Personality Inventory (Costa & McCrae, 1992), a measure of the Big Five in forensic settings (Archer et al., 2006).

Yet, some criticisms of the Big Five traits have been noted. While trait theories (e.g., FFM) have described the "what," they have generally been limited in ability to explain the "why"

or "how" (Jayawickreme et al., 2019). Additionally, although trait theories describe some aspects of behavior and identity, they are limited in the comprehensibility of a full account of how individual differences manifest in behaviors (Kandler et al., 2014). While research has shown behavioral correlates of specific traits, a conceptual account of how traits translate into and accounts for daily/consistent behavior is limited. Furthermore, although there appears to be a strong relationship between these Big Five traits and AM functions, most of these studies are correlational in nature. As such, it is not possible to decipher the directionality of the relationships. However, the Big Five traits are hypothesized to be stable (Mackiewicz & Cieciuch, 2016; Shiner & Caspi, 2003). Thus, it is postulated that these traits impact AM disclosure, rather than the mechanisms of AMs that shape personality. Even given the limitations of the FFM, the Big Five traits are well supported and easily measurable among community populations and across various developmental stages.

To date, most research examining personality traits related to the FFM has been limited to adulthood. However, some studies have examined personality structure and development from childhood and beyond and have found that temperament is relatively stable across the lifespan (Mackiewicz & Cieciuch, 2016; Shiner & Caspi, 2003). Overall, research has also shown that children and adolescents resemble adult personality in regard to the Big Five traits (Mackiewicz & Cieciuch, 2016). In a notable study utilizing a longitudinal research design of a cohort of infants who were observed from birth revealed that individual differences in personality were relatively stable over time and that these differences were predictive of later developmental outcomes (Kagan & Snidman, 1991). In addition, Big Five measures that have been adapted for children (e.g., Big Five Questionnaire for Children [BFQ-C]; Barbaranelli et al., 2003) have shown a high degree of convergent and discriminant validity with a popular adult Big Five

questionnaire (i.e., NEO-PI-R; Costa & McCrae, 1992) (Mackiewicz & Ciecuch, 2016). Thus, not only has personality been found to be stable across time, but the structure of personality seems to be consistent across various developmental stages.

Other dispositional traits, including temperamental factors, have been linked to how individuals share information, but have not been studied directly in the context of AM disclosure. Temperament includes biologically-based aspects of affect related to the activation and attentional components of individuals that are relatively stable across the lifespan (Rothbart & Bates, 2006). The temperamental factors of interest in this study are Inhibitory control, Shyness, and Sadness. *Inhibitory control* refers to the ability to suppress ongoing planned motor or cognitive processes (Eisenberg et al., 2004). Research suggests that differences in Inhibitory control reflect one's ability to activate or inhibit one's responses and control attention (Rothbart et al., 2003). Deficits in Inhibitory control have been associated with differences in the performance of tasks, such as attention shifting and disorganization (White et al., 2011). Thus, individuals with deficits in Inhibitory control are more impulsive and often act/respond in a less structured and targeted manner.

*Shyness*, another temperamental factor, describes a level of wariness in the face of novel social situations when confronted with self-conscious behavior in an evaluative social situation (Rubin et al., 2009). While shy children are more likely to experience anxiety as compared to non-shy youth, many shy children do not reach the clinical threshold for anxiety, which suggests that they are separate constructs (Rapee, 2010). Overall, shy children tend to withdraw/withhold information or opinions in a novel situation or around unfamiliar people.

In addition to the associations discussed above, mixed findings have emerged between *anxiety* and AM specificity. Some scholars have suggested that the conflicting results may be a

function of the type of anxiety presentation (e.g., separation anxiety, specific phobia) under consideration (Hallford et al., 2019). However, overall, individuals with anxiety preferentially attend to threatening information during and following personal/environmental events (Morgan, 2010). One study found decreased specificity and organization in the details of AM disclosure among participants in the anxiety induction group compared to the neutral mood group (Hallford et al., 2019). Overall, the AM disclosures of those who are more anxious have been found to be less logical in most cases. For the purpose of this study, social anxiety was utilized to conceptualize the variable of anxiety as it is more related to the interpersonal aspect of disclosure relevant to this context. Particularly, among individuals with social anxiety, it is theorized that memory biases, including social-threat, imagery associated with the memories, and the cognitive processing style, can inhibit the recall and sharing of AMs among adults (Heinrichs & Hoffman, 2001; Morgan, 2010). Given the differences among those with social anxiety, it seems that both the quality and the quantity of AM disclosure are negatively impacted (e.g., briefer, less complex, and less analytical narratives). Hence, it appears that increased social anxiety is related to decreased AM length and overall specificity.

Lastly, individuals experiencing *Sadness* or depression have been found to recall AMs differently. Specifically, a review using the Autobiographical Memory Test revealed that depressed adults had increased difficulty retrieving specific AMs than non-depressed individuals and thus are more vague when describing AMs (Williams et al., 2007). However, these studies are correlational in nature, and thus, it is possible that a bidirectional relationship exists between these various dispositional factors and memory function. For instance, it is possible that rumination processes affect memory function as a result of the level of psychopathology (Williams et al., 2007).

While much of the research on AMs has been conducted in adult samples, it is also important to consider the function and ability of children to form and share AMs. AM allows children to establish a 'personal life story' in memory, an achievement reached through conversations with others in which personal events and experiences are shared (Howe et al., 2003). An important milestone in the formation of the AM system is the development of narrative skills (Kulkofsky et al., 2008; Nelson & Fivush, 2004). Acquisition of time knowledge regarding the correct representation and use of time units (Burny et al., 2009; Labrell et al., 2016), may account for children's increased ability to sequence their AMs. Furthermore, typically, in middle childhood, there is a sharp increase in children's ability to communicate chronologically based narratives accurately (Friedman, 2004). From a neurocognitive perspective, middle childhood appears to be the earliest developmental stage in which these factors can be studied (Casey et al., 2000; Taylor et al., 2022).

By late childhood, at approximately the age of 9, most children can produce a standard structure in their personal narratives (O'Kearney et al., 2007). Also, during middle childhood, children generally understand who they are and can contrast themselves and others at different times and have a sense of stability (Harter, 1999; Mackiewicz & Ciecuch, 2016). Furthermore, studies have found that 8 and 9-year-old children have a significantly increased and distinct capacity to express linear, coherent, and goal-directed personal narratives, especially compared to early childhood peers, i.e., 4- and 5-year-olds (Peterson & McCabe, 1983). In another study, children between the ages of 8-10 years performed similarly to adults when they were asked to sequentially talk about the photographed events of their lives over a 4-week period (Pathman et al., 2013). Thus, children 8 years of age and older appear to have the capability to recall and share personal memories coherently.

### The Current Study

Developing a better understanding of how dispositional factors may be associated with the disclosure of valenced experiences (i.e., autobiographical memories) is a first step toward grounding theories and practice initiatives. Thus, the purpose of the current study is to explore the relationship between dispositional factors (i.e., temperament and personality) and the disclosure of valenced AMs among youth between the ages of 8-10. The age range of 8-10 has been selected since disclosure rates tend to be higher in this group among studies of CA disclosure compared to young children or adolescents (London et al., 2007). As such, they may provide more insight into promoters of disclosure. In addition, by late childhood (around the age of 8-12 years), children have the linguistic and cognitive abilities to recall and communicate AMs. Thus, concerns about confounding abilities with younger children are minimized by studying a group of youth in later childhood. Also, personality has been found to be relatively stable across the lifespan, and during late childhood, youth have generally developed a basic understanding of themselves and consistent characteristics that define them (Harter, 1999; Mackiewicz & Ciecuch, 2016).

For the first aim of the study, based on the extant literature, it was hypothesized that significant relationships will be found between personality (i.e., FFM) and AM disclosure facets (see Table 1 for all hypotheses). In particular, *Agreeableness* level will be negatively associated with narrative Volume, Insight, and Authenticity (*hypothesis 1*). Also, *Extraversion* level and *Openness* level, respectively, will be positively related to narrative Volume, Authenticity, and Clout (*hypothesis 2*). For the second aim of the study, it was also predicted that significant relationships will emerge between various temperament factors and AM disclosure facets. Specifically, general *Anxiety* and *Sadness* symptom severity (respectively) will be negatively

related to narrative Volume, Insight, and Analytical thinking (*hypothesis 3*). Furthermore, *Inhibitory control* level will be negatively related to narrative Volume, and positively related to Analytical thinking and Insight (*hypothesis 4*). Also, *Shyness* level is expected to be negatively related to narrative Volume, Insight, Clout, and Authenticity (*hypothesis 5*). In summary, the study aims to identify those participants with specific traits or abilities that facilitate AM disclosure to aid in therapeutic settings.

## Method

### Participants

Parent and child (between the ages 8-10) dyads were recruited to participate in the at-home, online study. As a part of the study, parents agreed to complete the online questionnaires/measures. Participants were required to have access to Zoom via personal device(s) and be current residents of the United States to participate in this study. Consent for this study also included permission to audio and video record the Zoom session; any parents who did not consent were excluded from the study. Also, child participants in the study were required to have at least a second-grade reading level to complete the measures included as a part of the study. Parents were asked about their child's reading level at the start of the study to assess eligibility and those below a second-grade reading level were excluded. Screener questions in the parent survey included questions about parental diagnosis of psychopathology (i.e., substance abuse, psychotic disorder, and bipolar disorder). Parents who endorsed any of these mental health disorders were excluded from data analysis. There were no additional inclusion/exclusion criteria.

A statistical power analysis using the G\*Power computer program (Faul et al., 2009) indicated that a total sample of 50 participants would be needed to detect small effects ( $f^2 = .25$ ,

$\alpha = .05$ ,  $1-\beta = .95$ ). As such, 50 child and parent dyads from the United States were targeted for participation in the study. The convenience sample was recruited through social media platforms (e.g., primarily Facebook by posting study information/link to parent groups).

Sixty child/parent dyads participated in the present study. Of the 60 participants, three were eliminated due to not meeting eligibility requirements (i.e., they resided outside the United States). An additional two participants were eliminated from the sample due to parents not completing any of the parent measures, and one participant was deleted due to technical compatibility issues with the recording. In total, the final sample size was 54 parent/child dyads (53.7% female children, 96.3% mothers). Additional demographic data can be located in *Table 2*.

### **Study Design**

A within-subjects correlational design was utilized for the study. All participants completed the same measures of dispositional characteristics (*predictor variables*) and additionally report a detailed account of specific valenced AMs (i.e., positive and negative). These AM narratives were transcribed and coded to quantify facets of AM disclosure (*outcome variables*).

### **Measures**

Child participants completed a measure of personality based on the FFM, the Pictorial Personality Traits Questionnaire for Children (PPTQ; Mackiewicz & Ciecuch, 2016). The PPTQ measures the Big Five personality traits for children and adolescents between 7 to 13 years old. The pictorial style of this measure is suited for the cognitive abilities of youth, who, at this age have not reached full abstract reasoning abilities due to the still maturing brain (Taylor et al., 2022). The PPTQ includes 15 items (3 items per Big Five trait) and includes two pictures of the same character in different situations. There is a short description of the character and situation



with the pictures for each item. The participants read the sentence and then chose one of the pictures according to the following instruction: "Think about how you most often behave in this kind of situation?" The participants responded using a three-point Likert scale, which when averaged, yields a score for each personality trait scale, respectively. The validity of PPTQ has been tested by confirmatory factor analysis (CFA), and its quality indicator has been satisfactory (Łubianka & Filipiak, 2020; Mackiewicz & Ciecuch, 2016). In addition, high convergent validity between the PPTQ and BFQ (a common child measure of the Big Five) has been established (Mackiewicz & Ciecuch, 2016). Also, the internal consistency of the PPTQ is adequate and at a satisfactory level for the personality scales ( $\alpha > 0.61$  for all scales, except Openness [ $\alpha = 0.48$ ]; Mackiewicz & Ciecuch, 2016). While the PPTQ is a relatively new measure, it has been utilized in several recent peer-reviewed articles (e.g., Apascarietei et al., 2021; Łubianka & Filipiak, 2020).

In addition to the child completed measure, parents completed an online survey of parent report questionnaires regarding their child via Qualtrics. The questionnaires consisted of: demographic questions, the Screen for Child Anxiety Related Disorders, Parent version (SCARED; Birmaher et al., 1997), the Temperament in Middle Childhood Questionnaire, Parent version, (TMCQ; Simonds et al., 2007), the Big Five Questionnaire for Children, Parent version (BFQ-C; Barbaranelli et al., 2003), and the Trauma Screen, Parent version (Foa et al., 2001). Of note, the Trauma Screen was not analyzed in the current study and will not be discussed further. For all the dispositional measures (i.e., personality and temperament measures), scores are calculated by taking the average of each scale, after accounting for any reverse-scored items, following the standard protocol of each measure, respectively.

First, parents completed a demographics form as a part of the survey, which included

items about the child's age, gender, race, ethnicity, number of siblings, and years of formal schooling. Additional information about the parent's race, ethnicity, education level, and occupation were also requested. Also, parent psychopathology diagnosis history questions were included in this section.

Next, the SCARED (Birmaher et al., 1997) was used to measure the anxiety level of the child from the caregiver's perspective. The SCARED is a commonly used measure of pediatric anxiety symptoms and has been established as a valid, reliable, and sensitive measure of child anxiety in clinical, community, and primary care samples (Birmaher et al., 1997; Muris et al., 1998). The SCARED includes 41 items on a four-point Likert scale ranging from 0 to 3 (0 = not true or hardly ever true; 3 = very true or often true). The SCARED scores range from 0 to 123 and a total score of 25 or greater indicates the presence of an anxiety disorder. Subscale scores of anxiety are also provided for the following anxiety-related problems: panic disorder, generalized anxiety disorder, social anxiety, separation anxiety, and significant school avoidance. The SCARED has demonstrated good internal consistency ( $\alpha = 0.74$  to  $0.93$ ) and strong test-retest reliability over a 5-day to 15-week window (intraclass correlation coefficient [ICC] =  $.70 - .90$ ; Birmaher et al., 1997). Significant correlations with other childhood anxiety disorder measures suggest good convergent validity (Muris et al., 1998), while good discriminant validity between the SCARED and other psychiatric disorders has also been established (Birmaher et al., 1997). However, one potential caution of the SCARED is the discrepancy between informant ratings, particularly the low parent-child agreement (Behrens et al., 2019). Nonetheless, because only the parent report is collected in this study, this potential limitation is not as pertinent. For this study, Anxiety was captured solely with the use of the *social anxiety subscale* on the SCARED. Social anxiety, as compared to general anxiety, was selected as those who are socially anxious have

been found to have memory biases (e.g., social-threat biases, Heinrichs & Hoffman, 2001; Morgan, 2010) that are particularly relevant to the aspect of disclosure that is required in this study.

Then, the TMCQ (Simonds et al., 2007), a widely used parent-report measure of temperament spanning the ages 7-10 years (Kotelnikova et al., 2017), was completed by caregivers. While the TMCQ consists of 157 items, 17 lower order scales, and four higher order factors, only three lower order scales were administered and used for the current study (i.e., Inhibitory control, Shyness, Sadness). Items on the TMCQ are presented on a five-point Likert scale ranging from 1 to 5 (1 = almost always untrue; 5 = almost always true) with a respective score provided for each scale. Internal consistency was adequate ( $\alpha > 0.70$ ) for all the temperamental subscales and convergent validity has been demonstrated (Nystrom & Bengtsson, 2017). Also, the TMCQ has shown strong predictive validity as TMCQ scores have been related to outcomes such as psychopathology (Kotelnikova et al., 2017).

After, the Big Five Questionnaire for Children, Parent version (BFQ-C; Barbaranelli et al., 2003), was completed to assess the parent's perspective of their child's personality. While the PPTQ-C was administered directly to the child, the BFQ-C was administered to parents for additional reporting of the child's personality. The BFQ-C includes 65 items, which are presented on a five-point Likert scale (1 = almost always untrue; 5 = almost always true), with a respective score provided for each personality scale. Strong support was found for the psychometric qualities of the BFQ-C in initial validation studies (Barbaranelli et al., 2003). In particular, a factor analysis revealed the presence of five dimensions, which resembled the Big Five personality factors. Validity for the BFQ-C has also been established as the scale correlated significantly with academic level, internalizing, and externalizing behaviors. Also, a strong

informant rating agreement has been established between parent and teacher ratings of children's personality. Good reliability has been established, with Cronbach's alphas coefficients ranging from .82 to .95. A later study using the BFQ-C in children between 8 to 14 years old found a clear five-factor structure, good internal consistency, and good validity (Olivier & Herve, 2015).

### *Coding*

Audio and video-recorded interviews of each AM disclosure were transcribed verbatim and verified by research assistants (RAs). Filler words (e.g., um, uh, hm), transcriber comments, and clarification questions were removed from the transcripts. The transcripts were analyzed through the Linguistic Inquiry and Word Count Program (LIWC; Boyd et al., 2022). The LIWC processes each transcript word by word and classifies each word into appropriate categories in addition to providing a total word count. For this study, five AM narrative facets were operationalized using the following LIWC categories: Word Count (Volume), Clout, Analytical style, Authenticity, and Insight.

Narrative volume was measured by examining the word count for each AM recall narrative. Clout was recorded on a scale of 0 to 100, where a higher number indicates more confidence and a lower number indicates tentativeness (Boyd et al., 2022). Analytical thinking was also recorded on a scale of 0 to 100, where a higher number reflects formal, logical, and hierarchical thinking and a lower number reflect more informal, personal, here-and-now, and narrative thinking. Similarly, Authenticity was recorded on a scale of 0 to 100, where a higher number indicates a more personal and disclosing narrative and a lower number indicates a more guarded and distanced narrative. Finally, Insight was recorded to measure perception related to cognitive process. Higher scores on insight are indicative of understanding specific cause and effect (e.g., “know,” “think,” “how”) and a more detailed and explanatory style, while a lower

score indicates a more simple and straightforward narrative style.

### **Procedure**

Institutional Review Board (IRB) approval was obtained for this study prior to recruiting participants. After IRB approval, the collected consent form included special permission to use recordings; only parents who agreed to audio/video recordings were included in the study. The study consisted of three main phases: 1) parent consent completed via Qualtrics prior to Zoom session, 2) child participation in the Zoom session, 3) parent completion of the questionnaire packet via Qualtrics post Zoom session.

After the parent completed the consent form via a Qualtrics link sent out prior to study participation, participants joined a scheduled Zoom session with an RA. Parent consent and child assent were gathered at the start of the Zoom session. The parent was asked to stay in the room/area while the child completed the Zoom portion of the study. However, the parent was asked to sit behind the child so that the parent's reactions or gestures did not influence their responses. As a part of the first task of the study, the child completed the PPTQ-C while the RA recorded the answers on a form. Then, the RA asked the child to verbally report a detailed account of a positive event/situation that they have experienced. The following instructions/prompts were provided for AM disclosure:

"For the next part of this study, I would like you to remember a specific event that you were involved in or that happened to you that you felt positive feelings.

[Positive/negative] feelings can mean a lot of different things like, [positive: happy, proud, or relieved/ negative: sad, angry, hurt, scared, or disappointed], for example.

Try to think of a specific [positive/negative] memory. When you are ready, tell me as much information as you can remember about that [positive/negative] event or memory.

[Once the child responds] follow up with, "Tell me more... tell me all the details you remember about that event or memory. [If the child gives more information in the last prompt] follow up with, "Do you remember anything else about that event or memory (what else...)."

The RAs did not prompt beyond the provided script described above. Children were also given the opportunity to ask clarifying questions if they did not understand parts of the prompt or specific words. Also, participants' sharing of the events were not interrupted as no time constrictions were implemented since Volume was one facet of AM disclosure that was of interest in the study. However, if a child deviated from the AM topic disclosed, they were reminded to only share details relevant to the specific event they chose to disclose.

After the child shared a positive AM, the child watched a 3-minute video of paint colors being mixed together to serve as a neutral distractor task between disclosing each valenced memory. Then, using the same prompt as above, the child was asked to share a negative AM. Finally, the child and the parent were provided with a debrief at the end of the Zoom session. The parent was also informed that they must respond to the Qualtrics survey that was sent to their email post Zoom participation to complete the study. The Qualtrics survey sent to the parents included the following questionnaires/measures in the following order (see descriptions above): demographics, SCARED, TMCQ, BFQ-C, and Trauma Checklist. After the child participated in the Zoom portion of the study and the parent completed the Qualtrics survey, the child was provided with a certificate and the parent was given a \$15 Amazon gift card code for their participation.

### **Data Analysis Plan**

The first step of the analyses was examining the data for missing variables and assumptions of bivariate *t*-tests and bivariate correlations. Each variable was visually inspected for the presence of outliers using the histogram and numerically examined using the 'standard deviation test' (i.e., take the standard deviation, multiply it by 3, and add/subtract the value from the mean; any value above/below this number is an outlier). All variables were visually inspected using Q-Q plots and histograms to ensure their distribution was normal, or close to normal, and the skewness values and kurtosis values were examined (i.e., +/- 2 was considered within the normal range). Linearity between the predictor and outcome variables was assessed by inspecting a plot of observed versus predicted values and a plot of residuals versus predicted values. Homoscedasticity using scatter plots was also examined to meet the assumptions of Pearson correlations.

After the assumptions for all the statistical analyses were examined and met, the first step to test the hypotheses was to include preliminary testing looking at each AM narrative facet. Specifically, repeated-measures *t*-tests were conducted to see if there were significant group differences between the positive and negative conditions for each of the five AM narrative facets. For each AM facet, if the difference between the positive and the negative condition was non-significant, then the variable was collapsed across valence by taking an average of the two variables and creating an overall new variable of that facet. If there was a significant difference between the positive and negative conditions for each AM narrative facet, then the two conditions would be maintained separately moving forward in the next steps of analysis.

Next, repeated-measures *t*-tests were also conducted to examine if there were significant group differences between the child report of personality (i.e., PPTQ) and parent report of child's personality (BFQ). Similarly, if the difference between the PPTQ and BFQ was non-significant,

then each personality variable would be collapsed across valence by taking an average of the two variables and creating an overall new variable of that facet. Conversely, if there was a significant difference between the personality variables for PPTQ and BFQ, then the two conditions would be maintained separately moving forward.

Finally, the last step to test the hypotheses was to conduct a set of Pearson correlations. A correlation matrix test was utilized to see if the relationship between the dispositional factors and AM narrative facets were significant in the predicted direction.

## Results

All dispositional variables (i.e., personality and temperament variables) met assumptions for the selected statistical analyses. Similarly, all personality and temperament variable mean/standard deviation scores (see Table 2) were consistent with previously reported ranges; however, the average score for the SCARED (social anxiety) was lower than prior reported norms (Birmaher et al., 1997). Conversely, the assumptions of normal distribution were not met for all narrative facets (i.e., Volume, Analytical thinking, Authenticity, and Insight) due to the presence of outliers. Because only one outlier skewed the data for each the narrative facets, the windorizing technique (i.e., replacing outliers with the value that is three SDs above the mean) was utilized to meet the assumptions of the statistical tests.

### Preliminary Analyses

Following the assumptions testing, preliminary analyses were conducted to examine if AM narrative facets significantly differed between the positive and negative conditions. Overall, the average length of both valenced AM narratives were comparable (i.e., the positive AM narrative was 106 words, while the average length of the negative narrative was 121 words). The results of the *t*-tests revealed mixed findings. For the positive ( $M = 2.34$ ;  $SD = 2.51$ ) and negative



AM narratives ( $M = 2.45$ ;  $SD = 2.91$ ), the level of emotionality in the text were similar ( $t(53) = -0.22$ ,  $p = .828$ , 95% CI [-0.30, 0.24]). For the narrative facet of Clout, the difference between the positive and the negative condition was significant ( $t(53) = 2.82$ ,  $p = .007$ , 95% CI [0.11, 0.66],  $d = 0.38$ ). The positive AM narratives included text with significantly higher levels of confidence and stance of expertise as compared to the negative AM disclosures. However, the difference between the positive and negative condition for the rest of the narrative facets were non-significant: Volume,  $t(53) = -1.16$ ,  $p = .252$ , 95% CI [-0.43, 0.11],  $d = -0.16$ ; Analytical thinking,  $t(53) = 1.92$ ,  $p = .060$ , 95% CI [-0.01, 0.53],  $d = 0.26$ ; Authenticity,  $t(53) = -1.23$ ,  $p = .223$ , 95% CI [-0.44, 0.10],  $d = -0.17$ ; and Insight,  $t(53) = -0.24$ ,  $p = .814$ , 95% CI [-0.30, 0.24],  $d = -0.03$ . Given these findings, positive and negative narrative facets for Volume, Analytical thinking, Authenticity, and Insight were collapsed across valence, respectively, and an overall new variable of that narrative fact was used in analyses moving forward. However, positive and negative conditions were maintained separately for Clout since a significant difference was found between valence for this facet.

Further preliminary analyses were conducted to examine if parents' reports of the child's Big-5 traits (i.e., BFQ) differed significantly from children's reports of their Big-5 traits (i.e., PPTQ). As previously mentioned, only three of the five Big-Five measures are of interest in this study (i.e., Openness, Agreeableness, Extraversion). Results showed that parent reports of their children's Extraversion level differed significantly from children's own reports,  $t(54) = -50.07$ ,  $p < .001$ , 95% CI [-45.72, -42.20],  $d = -6.75$ . Similarly, parent reports of their children's Openness level ( $t(54) = -42.90$ ,  $p < .001$ , 95% CI [-45.87, -41.77],  $d = -5.79$ ) and Agreeableness levels ( $t(54) = -43.47$ ,  $p < .001$ , 95% CI [-46.90, -42.77],  $d = -5.86$ ) differed significantly from children's own reports. Because there was a significant difference between parent and child

reports of each of the personality traits, the variables were maintained separately moving forward in the next steps of analysis.

### **Personality and AM Narrative Outcomes**

The hypotheses related to personality and AM facets were examined by conducting a set of bivariate correlations (see Table 3). *Hypothesis 1* regarding *Agreeableness* was partially supported. In particular, the child rating of Agreeableness (PPTQ-Agreeableness) was found to have a medium negative significant association with narrative Volume ( $r(54) = -.313, p = .021$ ) and Insight ( $r(54) = -.446, p < .001$ ), supporting the hypothesis. However, the parent rating of Agreeableness (BFQ-Agreeableness) as it related to both narrative Volume and Insight was not significant and thus did not support the hypothesis. In addition, neither PPTQ-Agreeableness nor BFQ-Agreeableness were negatively correlated with Authenticity as initially hypothesized.

*Hypothesis 2*, examining *Extraversion* and *Openness*, respectively, was partially supported. A small positive correlation was found between BFQ-Openness and Authenticity as predicted ( $r(54) = .294, p = .031$ ); however, the same was not true for PPTQ-Openness. Additionally, no significant positive relationship emerged between Authenticity and Extraversion for either the parent or child, as hypothesized. Similarly, parent rating of Extraversion (BFQ-Extraversion) had a small positive correlation with positive AM-Clout ( $r(54) = .268, p = .050$ ), while child rating of Extraversion (PPTQ-Extraversion) was not. Lastly, Volume was not correlated with Extraversion or Openness for either parent or child ratings.

### **Temperament and AM Narrative Outcomes**

The hypotheses related to temperament and AM facets were examined by completing a set of bivariate correlations (see Table 4). *Hypothesis 3* regarding *Anxiety* and *Sadness*, respectively, was partially supported. Only Anxiety had a medium negative correlation with

narrative Volume as predicted ( $r(54) = -.348, p = .010$ ). However, Sadness was not significantly associated with Volume. Interestingly, Anxiety was moderately positively associated with Analytical thinking ( $r(54) = .313, p = .021$ ), although it was initially hypothesized that this relationship would be correlated in the negative direction. No significant relationship emerged between Sadness and Analytical thinking. Additionally, neither Sadness nor Anxiety were significantly related to Insight as initially hypothesized.

*Hypothesis 4* examining ***Inhibitory control*** was not supported. No significant relationships emerged between Inhibitory control and narrative Volume, Analytical thinking, or Insight, respectively, as originally predicted.

Finally, *hypothesis 5* regarding ***Shyness*** was partially supported. As predicted, a significant moderate negative relationship was present between Shyness and narrative Volume ( $r(54) = -.338, p = .012$ ). However, no significant relationships were found between Shyness and Insight, Clout, or Authenticity, respectively, as hypothesized.

### **Discussion**

The disclosure of AMs is critical to all clinical work, whether it is a client seeking assistance in therapy or evaluations targeted at specific referral questions. Although the disclosure of AMs is essential to clinical work, most research has focused on external or relational factors that contribute to client disclosure (e.g., Farber et al., 2004; Fulginiti et al., 2016) and limited research has examined potential factors that facilitate or obstruct such disclosure among children. In the current study, the relationship between the disclosure of valenced AMs and internal dispositional factors (i.e., personality and temperament) was examined among children between the ages of 8 to 10 years old. Parents completed two measures of their child's temperamental characteristics (i.e., SCARED and TMCQ) and a Big-5

personality measure of their child (BFQ), while each child also completed the PPTQ to account for the personality traits from their perspective.

Participants' disclosure of positive and negative AMs were coded into five facets: Volume, Insight, Authenticity, Clout, and Analytical thinking. Overall, the valence of the AM disclosure did not significantly differ as it relates to AM facet outcomes, with the exception of Clout. Thus, whether the memory being disclosed was positive or negative did not have an impact on the level of Volume, Insight, Authenticity, or Analytical thinking among the narratives. However, positive AM Clout was significantly higher compared to Negative AM Clout. These findings indicate that individuals tend to disclose personal information in a similar manner regardless of the information they are sharing with others. The Disclosure Decision Model posits that the depth and breadth of disclosure are dependent on the evaluation of subjective utility and risk of disclosure (Omarzu, 2000). Given that participants were provided with the same prompt and contingency of sharing personal experiences, it is possible that they viewed the risk of disclosure as relatively equal across valence in this study, which resulted in similar narrative facet outcomes for both positive and negative AMs. However, given that Clout captures the level of confidence in the narrative, it is not surprising that participants felt more tentativeness discussing their negative AMs as compared to positive AMs.

Conversely, the results revealed that personality (i.e., Extraversion, Openness, and Agreeableness from Big-5) differed depending on the reporter. To assess personality in children, the use of multiple informants is a beneficial strategy to garner various perspectives. While research has found that parent-youth concordance for externalizing disorders is generally low, and even lower concordance for internalizing disorders (Ooi et al., 2017), limited research has examined agreement of non-clinical traits, such parent-youth ratings of children's personalities.

The findings in the present study using BFQ, Parent version (Barbaranelli et al., 2003) and children's ratings of their own personality using the PPTQ (Mackiewicz & Ciecuch, 2016) revealed low concordance as each of the three personality variables were significantly different based on the reporter, showing that parents' report of a child's personality was evaluated to be different from a child's own understanding of their personality. It is unknown if the lack of concordance is because one report is more accurate than another. Therefore, the hypotheses examining personality were tested separately for the BFQ (parent-rated personality) and the PPTQ (child-rated personality).

In the first aim of the study, the relationships between personality and narrative facets were analyzed, in which *hypotheses 1* and *2* were partially supported. Specifically, children who reported a higher level of Agreeableness (PPTQ-Agreeableness) had lower narrative Volumes and lower levels of Insight as predicted. Previous research looking at general disclosure in adults found that more agreeable individuals disclose less overall and tend to be conservative in their disclosures, showing less insight in their narratives (Caci et al., 2019), which is consistent with the current findings. Moreover, children who were more extraverted had lower levels of Insight (in connection to PPTQ-Extraversion) and had higher levels of Clout for positive AM disclosures (in connection to BFQ-Extraversion). In the past, those who were more extraverted were found to engage greater in the social function of AMs, which includes disclosure of memories to facilitate communication and understanding with others (Bluck, 2003). While those who were extraverted (according to both parent and child reports) in this study did not have greater narrative Volume as predicted, they were more confident (per parent report) and insightful (per child report) in their disclosures. These significant findings are in line with past research in which extraverted individuals have found conversations about AMs to be enjoyable (Rubin &

Siegler, 2004). Interestingly, while Authenticity was predicted to be related to all personality variables, only a significant positive relationship emerged with Openness (BFQ-Openness). Given that those high on Openness reflect/act more on inner experiences and AMs (Rasmussen & Berntsen, 2010), it is not surprising to see this positive correlation with Authenticity, which indicates a more personal and disclosing narrative. However, it was unexpected that a negative relationship emerged between Insight and the child's ratings on Openness (PPTQ-Openness) since it conflicts with past findings (Rasmussen & Berntsen, 2010).

In the second aim of the study, the relationships between temperament (i.e., Anxiety, Sadness, Inhibitory control, and Shyness) and narrative facets were analyzed. *Hypothesis 3* was partially supported as no significant correlations were found between Sadness (TMCQ-Sadness) and narrative facets, but several were found with Anxiety (SCARED). Given that the sample was from the general public, the overall low level of Sadness may not have allowed for differences in narrative disclosures to be identified. On the other hand, those who were more socially anxious disclosed less (lower Volume), which is consistent with previous findings (Heinrichs & Hoffman, 2001; Morgan, 2010). Also, it was expected that those who were more anxious would have lower levels of Insight, but this relationship was not significant. Rather, more anxious participants had greater levels of Analytical thinking, which was initially predicted but in the opposite direction. Past research has found that anxious individuals attend more to threatening information (Morgan, 2010, Hallford et al., 2019) and thus are less likely to show Analytical thinking (i.e., logical and hierarchal). However, it is possible that participants showed analytical thinking towards the experiences they shared, even if the information shared was largely negative in nature.

Interestingly, Inhibitory control (TMCQ-Inhibitory control) did not result in any significant relationships with narrative facets (*hypothesis 4* not supported). According to the findings in this study, the ability to suppress cognitive processes did not impact the quality or quantity of AM disclosures. Previous work has shown that those with deficits in Inhibitory control have difficulties with attention shifting and disorganization (White et al., 2011), which was not reflected in the relationship between Inhibitory control and Analytical thinking as expected. However, it is possible that given the structure of this study, there was not much opportunity to act impulsively and that such behavior would not be easily recognized with the coded narrative facets. Finally, *hypothesis 5* was partially supported as participants who were shyer (TMCQ-Shyness) disclosed less (low Volume), which is similar to past findings (Rubin et al., 2009). Conversely, Shyness level did not relate to Insight, Clout, or Authenticity as predicted. It is possible that the low disclosure Volume among those who were shyer did not allow for the opportunity to examine quality differences in AM disclosure facets.

### **Limitations and Future Direction**

Despite the strengths of this present study, some limitations preclude stronger conclusions. First, this is a correlational study, and given the bidirectional relationships that exists between these various dispositional factors and AM disclosure facets, it is not possible to articulate the directionality of the relationships. Second, the order in which participants disclosed their positive AM and negative AM was not counterbalanced. Without randomization of the valenced AM disclosures, it is difficult to ascertain if the outcomes of the study would be different if this process was counterbalanced. Also, a neutral AM condition was not included in this study. A future study that includes positive, negative, and neutral AM disclosure conditions could be helpful to further understand the relationships that emerged in this initial study. Third,

the current study solely relied on self-report measures, which can be subject to bias due to influences such as social desirability (e.g., Krumpal, 2013). Given these limitations, a future study that includes more stringent design with counterbalanced conditions and more behavioral or clinician-rated measures could help to mitigate some of these limitations.

Another limitation is that this study included a Zoom portion that took approximately 30 minutes to complete. Given that this study included 8-10 year old children, the long time frame for this study could have resulted in attentional fatigue and impacted the quality of participation, particularly during the latter parts of the study. Moreover, parents were present in the room while the child participants were completing the Zoom portion of the study. In the future, a comparison of having parents in the vicinity of the child versus having the child participate independently could be examined to see if differences in disclosure/behavior emerge. Additionally, this study did not validate the accuracy of the AM disclosures. Future studies could examine dispositional traits as it relates to AM factuality to explore potential differences. Another suggestion for future direction is to examine the relationship between dispositional traits and AM facets among a sample of children who have experienced trauma. The high prevalence of abuse and low level of disclosure (London et al., 2007) encourages further investigation on this topic to ground theories that may guide the current understanding of factors that influence child maltreatment disclosure.

### **Conclusions and Potential Implications**

All in all, it appears that dispositional traits can serve as potential facilitators or obstacles to disclosures, and personality factors have a larger influence on AM disclosures than temperament factors. Based on the current findings, elevations in the Agreeableness trait is associated with a briefer and less detailed/explanatory style (potentially problematic), while Extraversion is associated with a more confident (potentially facilitative), but less insightful



disclosures (potentially problematic). Additionally, high Openness is indicative of a more personal disclosure style (potentially facilitative), but less insightful sharing (potentially problematic). Lastly, higher levels of Shyness and Anxiety, respectively, are more likely to result in briefer AM disclosures (potentially problematic); yet higher Anxiety is also associated with a more logical and hierarchical disclosure style (potentially facilitative).

Potential clinical implications could include adaptation in clinical work depending on the dispositional traits of the clients. For example, since those who are more agreeable, shy, and/or anxious tend to disclose less, therapists may need to spend more time rapport-building with certain individuals who possess these traits. The focus on therapeutic alliance may be particularly important for some personality types. Also, normalizing disclosing personal experiences by modeling this within appropriate professional bounds may be a potential avenue to help those with dispositional traits that tend to disclose less in quantity/quality. However, given that this study is the first of its kind, further replication is necessary before applying changes in a clinical setting in terms of approaches in therapy or clinical interviewing. Nonetheless, the current study is a first step to grounding theories to help lead to the consideration of refined clinical approaches among children as the role of dispositional traits and AM disclosure is further investigated.

**Table 1**

*Hypotheses (1-5) of the study are broken down into dispositional factors, AM facets, direction of relationship, and if the relationship is a facilitator or an obstacle to disclosure.*

Dispositional factors	AM facet	Relationship (facilitator/obstacle)
<i>H1</i> : Agreeableness	Narrative volume, insight, and authenticity	Negative (obstacle)
<i>H2</i> : Extraversion, Openness	Narrative volume, authenticity, and clout	Positive (facilitator)
<i>H3</i> : Anxiety, Sadness	Narrative volume, insight, and analytical thinking	Negative (obstacle)
<i>H4</i> : Inhibitory control	Narrative volume Analytical thinking and authenticity	Negative (obstacle) Positive (facilitator)
<i>H5</i> : Shyness	Narrative volume, insight, clout, and authenticity	Negative (obstacle)

**Table 2***Characteristics of the sample and scores on measures (n = 54).*

		Frequency (%)
Demographics of child	Age	$M = 9.11 (SD = .82)$
	Female	29 (53.7%)
	Caucasian	30 (55.6%)
	African American	10 (18.5%)
	Asian American	2 (3.7%)
	Hispanic/Latinx	9 (16.7%)
	Other	2 (3.7%)
	2 <sup>nd</sup> grader	7 (12.7%)
	3 <sup>rd</sup> grader	9 (16.4%)
	4 <sup>th</sup> grader	27 (49.1%)
5 <sup>th</sup> grader	12 (21.8%)	
		Mean (SD)
PPTQ	Extraversion	2.34 (0.43)
	Openness	2.03 (0.43)
	Agreeableness	2.45 (0.46)
BFQ	Extraversion	3.94 (0.51)
	Openness	5.85 (0.57)
	Agreeableness	4.03 (0.63)
SCARED	Social anxiety	4.76 (3.68)
TMCQ	Inhibitory control	3.63 (0.61)
	Shyness	2.69 (0.82)
	Sadness	2.75 (0.64)

*Note.* PPTQ = Personality Traits Questionnaire for Children (Mackiewicz & Ciecuch, 2016). BFQ = Big Five Questionnaire for Children, Parent version (Barbaranelli et al., 2003). SCARED = Screen for Child Anxiety Related Disorders, Parent version (Birmaher et al., 1997). TMCQ = Temperament in Middle Childhood Questionnaire, Parent version ((Simonds et al., 2007).

**Table 3**

*Correlations Statistics for Child Rated Personality (PPTQ) and Parent Rated Personality (BFQ) with Narrative Facets.*

	Positive Clout	Negative Clout	Volume	Analytical Thinking	Authenticity	Insight
PPTQ-Extraversion	.195	.184	.032	-.149	-.242	<b>-.281*</b>
BFQ- Extraversion	<b>.268*</b>	.165	.163	-.136	-.173	-.206
PPTQ- Openness	.028	-.016	.020	-.145	-.094	<b>-.295*</b>
BFQ- Openness	-.126	-.135	-.127	.025	<b>.294*</b>	.091
PPTQ- Agreeableness	.089	-.080	<b>-.313*</b>	-.015	-.126	<b>-.446**</b>
BFQ- Agreeableness	.007	.092	-.066	.089	.049	-.228

*Note.* PPTQ = Personality Traits Questionnaire for Children (Mackiewicz & Ciecuch, 2016). BFQ = Big Five Questionnaire for Children, Parent version (Barbaranelli et al., 2003). Positive Clout is from positive AM narrative, while Negative Clout is from negative AM narrative.

\* $p < .05$ , \*\* $p < .01$ .

**Table 4***Correlations Statistics for Temperament Variables with Narrative Facets.*

	Positive Clout	Negative Clout	Volume	Analytical Thinking	Authenticity	Insight
SCARED (anxiety)	.065	-.061	<b>-.348**</b>	<b>.313*</b>	-.058	.063
TMCQ- Inhibitory control	-.232	-.068	-.060	-.119	.264	-.078
TMCQ- Sadness	.148	-.095	-.010	.075	-.077	-.049
TMCQ- Shyness	.025	-.091	<b>-.338*</b>	.122	.000	.081

*Note.* SCARED = Screen for Child Anxiety Related Disorders, Parent version (Birmaher et al., 1997). TMCQ = Temperament in Middle Childhood Questionnaire, Parent version (Simonds et al., 2007). Positive Clout is from positive AM narrative, while Negative Clout is from negative AM narrative.

\* $p < .05$ , \*\* $p < .01$ .

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