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The Role of Autonomy, Attachment, and Co-Construction in Early Adolescent Meaning Making

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The primary goal of this study was to examine the impact of autonomy, maternal co-construction, and attachment representations on early adolescents' meaning making. Meaning making is important for positive coping and developing a sense of self. Among 51 low-risk early adolescents, a high rate of unresolved (38%) and a low rate of secure (4%) attachment representations occurred. In the present sample, the amount of new information that a mother contributed to the conversation (i.e., elaborations) was found to significantly differentiate those adolescents who were judged to have made meaning from those who did not make meaning. Otherwise, autonomy and both adolescent and maternal attachment did not significantly contribute to meaning making. Whereas these results provide preliminary evidence for some role of maternal co-construction in early adolescent meaning making, discussion will also suggest further investigation into the function of autonomy, attachment, and other forms of co-construction in contributing to the emergence of meaning making over time.

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The Role of Autonomy, Attachment, and Co-Construction in Early Adolescent Meaning Making

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The ability to make sense of a meaningful event is an important skill for both successfully coping with negative events (Folkman, 1997; Park, 2010) and, more indirectly, for developing a clearer sense of identity (Gillies & Neimeyer, 2006; McLean & Pratt, 2006). A unique identity is a hallmark of independence in the adolescent developmental period, which is characterized by striving for autonomy and clearer sense of self. Identity development is an important task as it is associated with positive psychological health indicators such as the ability to engage in intimate relationships, have psychological flexibility, and self-esteem (Marcia, 1987); whereas less developmentally advanced identity status is associated with anxiety and poor relationships (Marcia, Waterman, Matteson, Archer, & Orlofsky, 1993). Adolescence is a critical time to develop such skills as adolescents are actively developing their autonomy and beginning to think independently about their personal experiences (Steinberg & Silverberg, 1986). Broadly, as adolescents build their autonomy they are preparing for the adult world by testing the problem-solving skills learned earlier. Further, development of both identity and autonomy are integral to a successful transition to adulthood (Côté, 2009). Narrative theories of identity focus on one's own life story (e.g. McAdams, 1993), and adolescence is rife with significant moments that may be remembered as self-defining memories (Rubin, Rahhal, & Poon, 1998). As adolescents make the transition to adulthood, they continue to use their parents as a touchstone to process their experiences (McLean & Jennings, 2012) and maintain a sense of safety (Allen & Manning, 2007). As such, the meaning making process may be co-constructed with their parents (McLean & Mansfield, 2011) through discussion about these topics. As adolescents recount self-defining memories, parents may play a direct role in influencing their child's meaning making process. This may be done through the ways in which they discuss the topic with the adolescent

such as asking questions, elaborating on the event details, or evincing talk about the emotional content of the event. Further, according to attachment theory, self-defining memories—like all life events—are interpreted through the lens of individual's *internal working model* of close relationships impacting their expectations for how the world works (Bowlby, 1973). Thus, we can see the meaning making process as being influenced by a combination of individual (autonomy, attachment) and interpersonal (co-construction) factors. However, the links between these individual concepts are not yet well defined in the literature. Better understanding these links may help researchers and clinicians understand the importance of meaning making within self-defining memories. Further, this research would clarify the trajectories and implications for adolescents with different attachment representations at varying stages of autonomy development. As a first step towards understanding early adolescent meaning making, this study seeks to explore and understand how adolescents' autonomy, use of co-construction, and attachment representation may lead to meaning making. This is an important process which could have implications related to not only adolescents' identity development, but also the ability to successfully navigate difficult experiences in the future.

Self-Defining Memories and Meaning Making

Self-defining memories are memories that are significant to one's own life story and are important for identity development (Blagov & Singer, 2004; McLean, 2005; McLean & Thorne, 2003; Thorne, 2000; Thorne & McLean, 2002, 2003; Thorne, McLean, & Lawrence, 2004). For example, meaning making of past struggles combined with sharing insights gained has been linked to positive self-regard (Debats, Drost, & Hansen, 1995). Further, Singer & Blagov (2004) have proposed that meaning-making allows memory to affect identity by creating a positive feedback loop that provides cognitive, affective, and motivational salience to that self-defining

memory while reinforcing related individual goals. Adolescence is a critical time to examine meaning making because it is rife with salient life events that may trigger this feedback loop. It is a time when many of one's first major achievements happen (e.g. making the varsity team, academic awards), when notable romantic relationships occur, and when bigger ethical and personal decisions are made (e.g. the choice to try drugs or alcohol). Further, it is a developmental time when individuals are actively thinking about who they are and who they want to be, which is inherent in the choices made around these life events. Adolescents are in a liminal stage between childhood and adulthood, when they are beginning to make decisions for their future (e.g. to go to college, to have a job) and the meaning that they attach to their experiences at that time are often tied to strong emotions and can be embedded within their lasting identity.

While some self-defining memories may be traumatic in nature, many may reflect normative stage-salient experiences. McLean and Pratt (2006) organized the content of adolescent self-defining memories into four broad categories: relationship, achievement, autonomy, and mortality. Relationship events focused on an interpersonal encounter, with an emphasis on relational concerns, such as falling in love. Achievement events emphasized attempts at mastering individual's goals, such as getting into college, or excelling in a domain such as athletics or work. Autonomy events emphasized becoming independent from others such as a separation from one's family of origin or peers. Mortality events emphasized one's own or another's mortality, including stories about accidents, death, or near death experiences (McLean & Pratt, 2006).

These events are marked as significant for the adolescent, in part, because of the meaning that is made. In a study of older adolescents, McLean and Thorne (2003) identified two different

levels of meaning in their research: lessons learned and insights gained. Lessons are specific conclusions that are often behaviorally driven and are applied only to similar kinds of events or parallel situations. For instance, the lesson "I shouldn't throw eggs at houses" lacks a broader context personally and/or situationally. Alternatively, one can gain insight, which is meaning that contains personal relevance or a broader context of the event. It extends beyond the immediate consequences (McLean & Thorne, 2003), so that the specific rule (e.g., don't throw eggs) is generalized into greater meaning (e.g., I understand why it is important to respect others' property). Gaining insight is considered a more sophisticated level of meaning than lesson learning. Additionally, McLean and Pratt (2006) included a third intermediary category, "vague meaning," which hints at having gained insight, but it is not specifically articulated, for example concepts of understanding more about oneself and what is important to one's self-identity (e.g., "I understand more about me—that I am the kind of person who cares about others"). Vague meaning is more sophisticated than lesson learning, but not as explicit as insights, thus placing meaning making on a continuum, rather than into categories.

There is some evidence that an individual's ability to construct these types of meaning from self-defining memories is influenced by development. In a high school student sample (M = 17.4 years), more sophisticated meaning (i.e., gaining insight) was associated with greater maturity in identity (McLean & Pratt, 2006). In a sample of college student ranging from 16-27 years old, McLean (2005) found that lessons were more commonly derived from self-defining memories at younger ages. This finding is consistent with the adult cross-sectional work conducted by Pratt et al., which showed that meaning increased in complexity across the life span (Pratt, et al., 1999). These findings all suggest that meaning making follows a developmental path. At younger and more immature stages, individuals are more likely to learn

lessons that involve drawing more narrow conclusions about oneself and the world, while at older or more advanced developmental stages, one may be more likely to gain insights that involve more complex and elaborated meaning (McLean, 2005). However, notably this developmental trajectory has yet to be explored in early adolescence. This study was designed in part to fill this significant gap in the literature – to understand *both* the topics of early adolescents significant memories and the meaning that is made.

Autonomy and Meaning Making

It is important to explore other co-occurring developmental factors that may influence the path towards meaning making. The ability to articulate meaning making by having gained insight or learned lessons may be influenced by the adolescents' experience with explanation and reasoning. Academically, adolescents are frequently asked to display and hone this ability in their schoolwork. Thus, this ability to reason may reflect their competence in these academic skills. Alternatively, this ability to reason and explain the consequences of an event may reflect the development of independent thought and action that is at the core of autonomy development.

Independent thought is a primary characteristic of autonomy and is hypothesized to be a key element for meaning making. A major developmental task in adolescence, the construct of autonomy includes both emotional autonomy (i.e., relying on the self or peers for emotional support) (Steinberg & Silverberg, 1986), and behavioral autonomy (independent decision making and enaction) (Smetana, Campione Barr, & Daddis, 2004). Developing autonomy in adolescence involves exhibiting behaviors that differentiate the adolescent from other people, for instance, displaying independent thought and self-determination in social interaction (Allen & Hauser, 1996). Given the salience of autonomy development during adolescence, it is not surprising that McLean and Pratt (2006) found that autonomy is a frequent theme in self-defining

memory narratives. Increasing autonomy, therefore, may also be a mechanism that facilitates both the independent thoughts and behaviors that lead to making meaning from self-defining memories. Specifically, more autonomy should contribute to gaining more insight from self-defining memories.

Autonomy development, however, must also come with the important skill of relatedness in order to have a positive developmental trajectory (Allen, Hauser, Eickholt, Bell, & O'Connor, 1994). When considering the importance of autonomy in adolescent meaning making, McLean and Pratt (2006) proposed that the development of autonomy and connectedness might be key elements for life story development. This parallels the constructs of autonomy and relatedness such that it emphasizes that good autonomy development is done in conjunction with maintaining the relationship with caregivers (Allen et al., 1994). This parallel suggests that there may be a connection between meaning made through self-defining memories and autonomy/relatedness development.

As a salient socio-emotional indicator, autonomy development may influence the meaning that adolescents are able to make out of their experiences. Adolescents' independent thinking—a skill necessary for exhibiting autonomy—is evident as adolescents use reason in an argument and may also be useful for making meaning. Additionally, adolescents with more developed autonomy *and relatedness* may be able to gain more insights from their experiences not only due to their individual exploration of their meaningful event, but also due to the ability to use their parents as a base from which to more broadly explore this experience. Further, maintaining relatedness while expressing autonomy may allow adolescents a safer emotional space to gain insight from their self-defining memories. Thus, individual differences in

autonomy may be important influences that differentiate some adolescents' meaning making from others.

Co-Construction with Parents

Throughout adolescence, parents retain an important role in adolescents' lives. Although other relationships such as friendships and romantic partnerships increase during this time (Berndt, 1982; Hartup, 1993), parental influence remains strong. As such, parents may impact the process by which adolescents make meaning from their experiences. A possible mechanism through which this may occur is co-construction—meaning to discuss a past event together. Previous research has indicated that individuals come to make meaning by understanding and evaluating their experiences in the present (Bruner, 1987; Fivush, Haden, & Reese, 1996; Gergen, 1994). This suggests that part of individuals' purpose in discussing memories with others is to gain meaning and greater understanding of these events.

Adolescence could thus be characterized as a period in development during which youth begin to test out the skill of making meaning from events. This idea is supported indirectly in a large area of developmental research. Children learn to narrate their past experiences through reminiscing with adults (for reviews see Fivush et al., 2006; Nelson & Fivush, 2004). While both younger and older youth share their experiences with others, younger adolescents are more likely to tell their parents their stories than older adolescents who are more likely to share their experiences with peers (McLean, 2005). Scaffolding in the co-construction of a memory reflects a parent's approach such as elaborating or explaining the events (Fivush, et al., 2006). McLean and Mansfield (2011) found that age and gender moderated the amount of scaffolding mothers provided in co-constructing memories, such that younger adolescents, and boys regardless of age (11-18 years), received more scaffolding from their mothers in discussions of past personally

important or emotionally salient events. For older adolescents, they received less scaffolding as mothers disagreed more with the adolescents' recall or interpretation of the event. McLean and Mansfield (2011) suggest that those who may have less experience sharing memories receive more scaffolding by their mothers. These findings hint at a developmental trend for parents to help early adolescents co-construct the memory in order to help them make sense of it, while older adolescents are more likely to seek this meaning making co-construction from their peers. However, as children become adolescents, they may still need some scaffolding of meaning by adults to help in understanding experiences.

The way in which parents help co-construct these events may also be an important factor to consider. Parents who are sensitive to their child's developmental stage may be able to appropriately support more autonomous adolescents' development of their own narratives and co-construct the narrative in such a way that adolescents are able to make more connections and deeper meaning from their life events. Alternatively, parents who are less sensitive may be too intrusive thereby interfering with autonomous adolescents ability to make personally relevant meaning. Parents who dismiss discussions of meaningful events and therefore do not do enough to scaffold the conversation may deny less autonomous adolescent the space to draw the connections necessary to make deeper meaning. Co-construction research with younger children demonstrated that at age 7.5, children who were securely attached in infancy had mothers who were able to co-construct discussions that were mutual, fluent, coherent, emotionally open, and were able to strike the balance between organizing the conversation and allowing the child to contribute. In contrast, children who were classified as insecure in infancy had mothers who were more disengaged or overwhelming in their attempts to guide a conversation with the child (Gini, Oppenheim, & Sagi-Schwartz, 2007). While a plethora of research demonstrates that

sensitivity is a key contributor to attachment security (see Belsky & Pasco Fearon, 2008 for a review), this may also be an important factor in adolescence for how parents help to co-construct these salient memories and allow youth to make deeper meaning from important events.

Other elements of the co-construction of conversation such as turn-taking, staying on-topic, tone, offering ideas, and supporting statements may also be important in helping adolescents to relate and make meaning of their experiences. For example, Sales, Fivush, and Peterson (2003) found that parental reminiscing style was correlated with preschool aged children's recall for both positive and negative events such that parents with an elaborative style had children who reported more new information during the conversations. This kind of style may be key for meaning making as it allows for more opportunity to discuss and evaluate the event. Investigating the elements of co-constructing that parents' use may be key to understanding the role of parents in co-construction and adolescent meaning making. To date, the influence of parental co-construction on early adolescent meaningful event topics has not been examined. Studying these potential links is an additional aim of the present study.

The Role of Attachment

As emotionally salient experiences, self-defining memories would be expected to activate the attachment system. Attachment theory suggests that individuals' attachment systems and resulting internal working models guide expectations of their interactions with the world and others in it. This working model therefore serves as a lens through which to view experiences. Attachment theory suggests that representations influence both which experiences and information are attended to, and the ways in which this information is interpreted. In this manner, adolescents' attachment status might impact the events the adolescent believes are important and thus determine which events become self-defining memories. For instance,

adolescents who have a dismissing attachment may avoid negative affect and interpersonal topics, and will instead choose to discuss more self-focused and achievement-oriented events. Alternatively, adolescents who are preoccupied may focus more on interpersonal events. As such, the content of self-defining memories may be a reflection of the adolescent's attachment representation and internal working model for events that are both salient and meaningful. Further, attachment representations may impact how the adolescent interprets the event emotionally. The emotional tone used when the adolescent speaks about the event itself may be influenced by their attachment. To date, the influence of attachment representations on adolescent self-defining memory topics has not been examined. Studying these potential links is an additional aim of the present study.

During the earliest phases of development, attachment appears to organize behavior. Bowlby (1988) described attachment as an organized behavioral system that is activated when one is threatened, and in infancy attachment functions to increase proximity to a caregiver in order to alleviate experienced stress. Across development, children are able to internalize their attachment experiences allowing them to form an internalized mental representation of self and others which functions in a similar way to actual proximity to soothe and regulate emotions. This internal working model then provides, in times of stress, a cognitive context that allows one to regulate emotion, engage in active coping, and self-soothe (Bowlby, 1988). In adolescence, Allen and Miga (2010) suggest that attachment representations are an indicator of emotion regulation, thus shifting the focus from exclusively reflecting the relationship of attachment figures to a reflection of an adolescent's ability to handle emotionally salient experiences.

Adolescents' attachment representations may also influence the meaning they make from their experiences and their approach to co-constructing the narrative with their parent.

Adolescents with secure attachment representation are most likely to have an internal working model that include expectations of safety and care, as well as good emotion regulation skills; thus, they may have both the psychological and emotional space to make the most insights from memories. Secure adolescents may be more mutually engaged in the co-construction of a memory with their parent. Due to the expectation that the parent is a secure base from which the adolescent can explore potential meaning in their events, adolescents may feel more willing to proffer less-developed ideas that their parent may expand upon. Through this exchange, the parent can help lead the adolescent to deeper, more advanced meaning of their self-defining memory.

Insecure adolescents may have internal working models that do not guarantee unconditional, unfailing support, and may struggle with emotion regulation, thus they may struggle to make deeper meaning from their life events. In previous research with adults, Shaver and Mikulincer (2002) found that when making meaning of an event anxiously attached adults often reach out to others and discuss the situation at length (e.g., ruminatively) arriving at many lessons that they could have learned from the situation. Preoccupied adolescents may use a similar tactic thus arriving at lesson learning from their meaningful memories, but not gaining much insight. Additionally, they may co-construct their narratives with their parents using more elaborations and explanations of the event as an effort to keep their parents' attention owing to an expectation that their parent might disengage or leave. Dismissing adolescents may respond similarly to the meaningful event discussion as they do to the Adult Attachment Interview, by not sharing emotionally charged memories or alternatively offering scant details in order to avoid acknowledging the potentially painful salience of relationships (George, West, & Pettem, 1997). This would lead the adolescent to articulate very little or no meaning at all. Research to date has

yet to examine the impact of adolescent's attachment status on the co-construction of a memory, or their ability to make meaning from a self-defining memory. The present study seeks to explore these links.

The prevalence rate of secure attachment in early adolescence remains unclear. A meta-analysis of four studies including late adolescents found that 56% of individuals were secure (van IJzendoorn & Bakermans-Kraneburg 1996). In studies of middle adolescents results indicate that rates of security are between 40-55% (Becker-Stoll, Fremmer-Bombik, Wartner, Zimmerman, & Grossman, 2008; Branstetter, Furman, & Cottrell, 2009). In other low-risk adolescent samples, notably high rates of dismissing attachment representations have been found; for example Furman and colleagues (Furman, Simon, Shaffer, & Bouchey, 2002) report 54% dismissing, and Branstetter and colleagues (2009) report 50% dismissing. When unresolved representations are included in in analyses, as in the present study, results included higher rates of unresolved representations and lower rates of security in adolescents (George, 2008; Wargo Aikins et al., 2009). Fully understanding rates of security across both high and low risk samples of adolescence, as well as how it may shift throughout the transitional developmental period of adolescence remains a gap to be explored in the literature.

Parental attachment status may also play a role in adolescent meaning making through its impact on co-construction. Fivush and Sales (2006) found that mothers who had an anxious attachment style were more engaged and explanatory in co-constructing the memory of their child's asthma attack with their child (age 9-12 years) than mothers who were less anxiously attached. For adolescents, this approach to co-construction might be too intrusive as they are developing their own ideas and autonomy and may wish to contribute more to the interaction. Additionally this approach may deny them the psychological space to allow for meaning making,

however this has yet to be examined in the literature. The present study seeks to explore if mothers' own attachment representation may influence her style of co-constructing the memory, and how she may scaffold the memory recalled with her adolescent.

While mothers' attachment representations may influence meaning making, these representations reflect more stable constructs of personality; however, there may be interpersonal qualities that fluctuate within the co-construction process. Warmth, for example, may be a construct that not only reflects the mother's temperament and interpersonal style, but also may be a more variable construct that depends upon the mother's mood and energy level. Maternal warmth is demonstrated through expressions of acceptance, affection and love, interest in children's activities and friends, and enthusiasm for children's endeavors and accomplishments (Amato, 1990; Rohner, 2004). Maternal warmth has been found to contribute to positive outcomes in children. Specifically in early adolescence, maternal warmth mediates the association between greater emotional security and fewer internalizing and externalizing problems (Alegre, Benson, & Perez-Escoda, 2014). Maternal warmth may complement attachment security through the direct expression of positive feelings towards the adolescent contributing to a safe environment whereby the adolescent may be able feel safe to explore his or her experiences and make meaning.

The Current Study

The present study seeks to establish the extent to which adolescents' autonomy and attachment representations, and parents' co-construction contribute to adolescent meaning making of self-defining memories. Meaning making is important for developing positive coping strategies and developing a sense of self (Folkman, 1997; Gillies & Neimeyer, 2006; McLean & Pratt, 2006; Park, 2010). Exploring this emerging skill will help to address a gap in the literature

that has, to date, focused mostly on later adolescence and adulthood. The extant literature suggests that these concepts may be related, but to date, few studies have demonstrated links. The analyses for this study will assess how the potentially interrelated—but unique—constructs of attachment, autonomy, and co-construction may come together to influence an adolescent's ability to make meaning from important life events. Thus, it is expected that these constructs function together as a process that gives way to allow for meaning making.

Specifically, the following hypotheses were examined:

1. Adolescents who exhibit more autonomy will be able to gain a higher level of meaning (i.e., insight) from their self-defining memory.
2. Mothers' ability to match the amount and kind of structure they provide in scaffolding the meaning making exercise to their adolescents' level of autonomy will influence adolescents' ability to make meaning. Specifically, adolescents low on autonomy may require more narrative structure and content from their mother such as elaborations, questions, and event explanation in order to gain insight. In contrast, adolescents higher in autonomy may require less maternal narrative structure and narrative content and may find high levels of these behaviors intrusive.
3. Adolescents' attachment representations will influence the content and affective tone of the experiences they discuss. Specifically, adolescents who are dismissing may avoid negative affect and interpersonal topics and thus will choose to discuss more achievement-oriented events while adolescents who are preoccupied may focus more on relationship events. Secure adolescents may be able to better regulate affect for all events and thus no specific topic is anticipated.

4. Adolescents' attachment representations may influence how they engage in the co-construction with their parents. Secure adolescents will have a more balanced contribution to the conversation with their mothers, demonstrating an equal contribution to both the narrative structure and content. Preoccupied adolescents may contribute more than their parents, whereas dismissing adolescents may contribute much less.
5. Adolescents' attachment representations will be related to the kind of meaning they make from their significant experiences. Adolescents with dismissing attachment representations will make the least sophisticated meaning (i.e., learn lessons); however adolescents who are preoccupied will likely make more sophisticated meaning (i.e., make some meaning). Secure adolescents will make the most sophisticated meaning (i.e., gain insight).
6. Maternal attachment representations will influence co-construction of the meaning making narratives. Specifically, mothers' attachment representations will both influence their ability to meet their children's needs so that they may make meaning within the discussion, as well as in scaffolding the selection of topics for the meaningful event. Mothers with dismissing attachment representations may have no strategy to offer their child, whereas preoccupied mothers will offer menu of topics to discuss. Alternatively, mothers with secure attachment representations will proffer strategies for coming up with a meaningful event and will guide the structure and content of the conversation in a mutual and reciprocal manner.

Method

Participants

Adolescents in this study included 51 youth (39 females) who participated in a laboratory based data collection with their mothers in the summer after their ninth grade year. Of these 51 adolescents, 39 were recruited from a short-term longitudinal school-based study in the northeastern United States beginning during their eighth grade year. Twelve participants were recruited as best friends of school-based participants and, therefore, did not participate in the school-based study.

Participants were enrolled in public schools in towns with a fairly homogenous middle-class socioeconomic status. The per capita income in these towns ranged from $35,087 - $77,974 (*M* = $58,465, *SD* = $16,036). The ethnic composition of the sample was 80% Caucasian, 15% Latino, 1% African American, and 4% from Mixed/Other ethnic backgrounds.

Across five schools, 626 eighth graders were invited to participate in the school-based study. Consent forms were returned by 62% of families (n = 388). Of these, 72% of parents gave consent for their child's participation (n = 281, 53% of the total population). Only students who obtained parental permission and provided assent participated in the larger study. Participation rates ranged from 27 - 72% in each of the five schools. Of the larger school-based sample, 59% (n = 165) of parents consented to be contacted for further participation in the lab-based portion of the study, 28% of whom (n = 46) accepted the invitation to participate in this data collection. Additionally, parents of 62 adolescents who had participated in a previous lab-based study as best friends of the participants were contacted; 23% (n = 14) accepted the invitation to participate in this data collection. Those individuals who initially consented to be contacted -- but were not scheduled -- did not participate due to scheduling conflicts, inability to be reached

by phone, and lack of interest. The initial estimated sample for the present study was further reduced owing to several factors: 6 participants were not administered the meaning making task due to a change in protocol, 1 dyad spoke in Spanish for the majority of the interaction, and 2 dyads had recording errors impeding coding. Therefore, the final sample consisted of 51 dyads, mother and adolescent.

The 51 target participants were compared to the larger sample of all students who participated across the five schools. Chi-square analyses showed that the sample differed significantly in gender (x^2 (1) = 7.74, $p < .01$), whereby the sample significantly overrepresented girls. No significant group differences emerged for a number of important indicators of adolescent well-being and adjustment including self-esteem, depression symptoms, withdrawal, popularity, friendship quality, or school engagement. However, compared to the larger sample, study participants were better liked ($t(736) = 2.32$, $p < .05$, $M = .49$, $SD = 1.16$) relative to the larger sample ($M = .00$, $SD = 1.00$).

Procedures

Participants included in this study visited the laboratory with their mothers during the summer after ninth grade and completed a number of videotaped independent and shared activities. Relevant to this study, adolescents and their mothers co-constructed a meaningful event the adolescent had experienced, engaged in a discussion of two relationship problems, and independently completed the Adult Attachment Projective Picture System.

The 39 adolescents who had participated in the school-based assessment during the spring of ninth grade had also completed a self-rating of behavioral autonomy during one of two 45-minute self-guided questionnaire completion sessions. In addition, the adolescents' teachers completed questionnaires regarding their school functioning and academic performance.

Measures and Coding.

Meaningful event task. Adolescent-mother dyads were prompted to have a ten-minute interaction regarding a meaningful event in the child's life. A research assistant prompted the dyad to spend ten minutes describing a memory in detail that "explains who the adolescent is and how it [the memory] affected them." Adolescents' mothers were instructed that they could help their child to describe the event and the impact it had on their child (see Appendix A for prompt). All interactions were video recorded and subsequently transcribed.

Meaningful event content coding. Meaningful event content coding (see Appendix B) captures and organizes the types of events that adolescents found meaningful into broader categories. Based on McLean and Thorne's (2001) manuals for coding events in meaningful memories, the mutually-exclusive categories include: *life threatening event* (subcode: death or serious illness/injury to self, death or serious illness/injury to someone else, physical assault to self, life threatening event not classifiable), *recreation/exploration* (e.g. ,going on a trip) *relationship* (e.g., a fight with a friend) (subcode: conflict, intimacy, separation & closeness), and *achievement/mastery* (e.g., winning an award), *guilt/shame* (e.g., getting in trouble for drinking alcohol). An additional code for *autonomy/independence* was added to capture events that emphasized an adolescent's independence, for example staying home alone for the first time.

Undergraduate research assistants, blind to the hypotheses of the study, were trained by this author. Transcripts were coded after watching the video interaction. Twenty-five percent of the transcripts were double-coded. Discrepancies were resolved through conferencing—a process of discussing coders' rationale for differences in codes while consulting the manual to reach

agreement. Inter-rater reliability was calculated prior to collapsing codes. Cohen's kappa > .75 indicated substantial levels of coder agreement (Landis & Koch, 1977).

Narrative length. Adolescent narrative length was calculated by tallying word counts of on-topic statements by the adolescent.

Content valence coding for meaningful events. Coders assessed the valence (positive or negative) of the event in two ways: first, a typical evaluation of an event (coder-rated valence) and second, as interpreted by the participants (observed valence). To assess coder-rated valence, coders indicated how the general population would likely judge the topic of the event. For example, if the topic were a grandparent's death, the event would be classified as a negative event because a typical instance of this event would be considered negative, regardless of the participant's potentially positive or mixed evaluation (e.g., "it was really a blessing that she didn't have to suffer"). This method is based on similar coding used in the UCLA Life-Stress Interview (Hammen, 1991). Alternatively, for observed valence, coders noted the valence with which the dyad spoke of the topic as positive, negative, or both (e.g., "It was a blessing that she died" would be considered positive). Kappa=.82 and.71 for the typical evaluation of an event, and for the rating of the participants' interpretation, respectively.

Level of meaning. Based on the work of McLean and Thorne (2001), event narratives were also coded for their level of meaning (see Appendix C). Coders were trained to identify whether the narrative included (0) *no meaning*, (1) *lesson learning,* (2) *some meaning*, or (3) *gaining insight*. *Lesson learning* is defined as a reference to having learned a tangible and specific lesson from the memory that has implications for subsequent behavior in similar situations. *Some meaning* is slightly more sophisticated than lesson learning but is not as explicit as insights, generally referring to a lesson learned about the self. *Gaining insight* is coded if the

adolescent infers an explicit meaning from the event that applies to broader understanding of themselves or the world. Much of the literature using this coding system has only incorporated the constructs of lesson learning and gaining insight, and thus coding for either presence or absence. However, McLean and Pratt (2006) used the above detailed system that allows for the intermediary step of *some meaning* (labeled *vague meaning* in their study). The intermediary code was used as this study's participants consist of a younger adolescent population who may not fully gain insight with their memories, but still may have achieved more than just lesson learning. For transcripts that showed evidence of multiple levels of meaning making, the highest level was used for that individual. Inter-rater reliability was calculated using the intraclass correlation coefficient (*ICC* □□.79)

Co-construction. (See Appendix D.) The goal of co-construction coding is to gain an understanding for the elements through which the mother and child co-construct a conversation. In the meaningful event task described above, mothers were instructed that they may both help their adolescent describe a meaningful memory and elaborate the impact it had on them. Two approaches were taken to understand the co-construction; first coders watched the taped interaction and coded how the mother supports the child in deriving the topic to discuss. Each interaction was coded for the presence or absence of the following: offering a menu of topics, offering a strategy to come up with a topic, offering one topic to discuss, no strategy, other strategy. A single interaction could have more than one strategy. Coder agreement measured with Cohen's kappa ranged from kappa = .67 to 1.0.

Next, the coders used a co-construction coding system based on Fivush's (2006) coding system used with mother-child dyads discussing stressful events and updated for adolescent conversations based on McLean and Mansfield's (2011) paper, as well as consultation with Kate

McLean (personal conversation, 2014) to examine each utterance—or complete thought—in detail. Utterances are most often complete sentences; however, rules of grammar do not need to apply, and thus an utterance can also be a fragment or part of a run-on sentence. Fivush's coding system codes each utterance in three ways: narrative structure, narrative content, and if it is "on topic." Narrative structure refers to the conversational function of the utterance (e.g., elaboration, confirmation, question). For narrative content, each utterance is coded for whether it refers to the description of the event itself, explanation of the event, or the emotional aspects of the event. To reflect developmental differences of adolescent-mother discussions, Fivush's original codes for narrative structure that reflected more child-like conversation were collapsed into one category (i.e., repetitions of previous statements and prompts to remember). Total scores for each element of narrative content and structure were calculated separately for the adolescent and mother. Lastly, each utterance was coded for whether it was attempting to get on topic (i.e., discussing the most meaningful memory), was on topic, or was off topic.

Twenty-five percent of the total number of transcripts were double-coded to ensure inter-rater reliability. Discrepancies were resolved through conferencing. Inter-rater reliability was calculated using the intraclass correlation coefficient for each element of co-construction (*ICCs* □□.70 - .99).

Global scaffolding coding. (See Appendix E.) In order to account for a global sense of the tone and process of the mother-teen interactions, dyads were rated on 4 global dimensions. Coders watched the tape and scored the interaction on a 1-5 scale based on a global sense of the following indicators: (1) How much does the mother *need* to direct the discussion in order to keep the adolescent on task? (1 = Multiple and repeated attempts are needed to return teen to task; 5 = Teen remains on task and does not need redirection); (2) How *effectively* does the

mother attempt to return to discussion or try and keep them on track? This scale reflects the mother changing her strategy to keep adolescent on track if necessary and is not the sheer number of attempts (1 = Mother is ineffective. Mother does not engage teen through a successful strategy or sensitively respond to their needs; 5 = Mother is effective. Appropriate and effective efforts to engage in memory discussion); (3) How much does the mother *lead* the conversation? (1 = Adolescent leads the conversation; 5 = Mother intrusively guides the conversation disallowing the adolescent to contribute much); and finally, (4) How *warm and connected* does the mother appear throughout the conversation? (1 = Cold and distant; 5 = Very warm and connected). Intraclass correlation coefficients ranged from .80 to .96.

Autonomy and relatedness coding. Adolescent–mother dyads engaged in an observational task designed to tap their promoting and undermining of autonomy and relatedness. Specifically, each dyad participated in a twenty-minute conversation during which they were asked to discuss two problems in their relationship. Prior to this task, the adolescent and their mother had independently selected a topic to discuss. The dyads were instructed to talk about both topics. If they had not switched topics at the ten-minute mark, a research assistant would knock on the door to indicate that the participants should switch topics. The interactions were videotaped, transcribed and coded using the Autonomy and Relatedness Coding System (Allen, Hauser, Bell, McElhaney, Tate, & Insabella, 1998). Both transcriptions and videotapes were used for coding.

The Autonomy and Relatedness Coding System codes adolescent-mother interactions on the dyadic level and examines for language promoting or undermining autonomy and relatedness in the discussion. The system considers both the intensity and frequency of each utterance. The coding system yields scores for each adolescent and mother separately on three scales:

promoting autonomy and relatedness, undermining autonomy, and undermining relatedness. For the present study, only the promoting autonomy and relatedness scale, and the subscale of stated reasons was used.

The promoting autonomy and relatedness scale includes four codes: stated reasons; confident assertiveness; validating; and engaged interaction. Stated reasons include statements that would advance the participant's argument such as "It is hard to ignore my sister because she bothers me." Confident assertiveness is coded based on the ability of the participant to maintain their position throughout the discussion and present their argument directly without qualifiers or hesitation. For example, an adolescent who repeats the phrase "I want more allowance" throughout the conversation without pause or qualifiers would score high on confident assertiveness. When scoring for "validating" comments, the coder is looking for statements of reacting positively to the other member of the dyad. This can include agreeing directly, laughing at a joke, or giving a compliment. For example, "you are right, you do help out a lot around the house" is a validating comment. Engagement in the interaction is scored by noting both body language (e.g., eye-contact, nodding), as well as statements that reflect an attempt to understand what the other person is saying.

This author was trained in Dr. Allen's Lab to reliability greater than .80 on the Autonomy and Relatedness Coding System. In turn, multiple coders were trained on this coding system by the author to reliability greater than .80. New coders practiced using the system by coding interactions from a study by Dr. Allen that had consensus codes previously established by the manual authors. The author and a team of two other coders coded all adolescent-mother interactions. The other coders were blind to study hypotheses. Twenty-five percent (n = 14) of the interactions were double coded and consensus scores were assigned. Twelve percent (n = 7)

of the interactions were coded by all of the coders, including the author, and consensus scores were obtained. The remaining tapes (n = 36) were coded by a single coder. The interclass correlation for the main scale of promoting autonomy is .77 and for the subscale of reasons is .92.

Self-reported autonomy, Mother-Father-Peer Scale. The Mother-Father-Peer Scale (MFP; Epstein, 1983) is a 78-item adolescent self-report measure to assess qualities of the adolescent's relationships with parents and peers. Relevant to this study, it assesses the perceived autonomy granted by each parent. Specifically, it evaluates the extent to which individuals believe their parent encouraged them to be autonomous, to have confidence in themselves, and to develop personal abilities. The items are rated on a five-point Likert scale, with higher ratings indicating more autonomy (Bernier, Larose, & Whipple, 2005). Construct validity, convergent validity, and internal consistency of the MFP are excellent (Epstein, 1983). Chronbach's alpha for this sample was .86.

Attachment representations. Both mother and adolescent attachment representations were measured using the Adult Attachment Projective Picture System (AAP; George, West, & Pettem, 2001). The AAP is composed of eight standard projective pictures. Participants' responses to the pictures are coded and attachment classifications are assigned based on both the content of the narrative response (e.g., story character's agency, connectedness, and synchrony) and presence or absence of markers of defensive processing. Participants are classified as either having a secure attachment representation or having one of three insecure representations (i.e., dismissing, preoccupied, or unresolved). Those classified as insecure-unresolved are also assigned a secondary classification.

Strong convergent validity has been found between the AAP and the Adult Attachment Interview (AAI). Empirical validation of the AAP is based on 193 individuals from both normative and at-risk samples. AAP-AAI convergence for secure vs. insecure classifications was 97% (kappa = .80, $p < .001$); convergence for the four major attachment groups was 92% (kappa = .89, $p < .001$) (George, et al., 2011). Test-retest reliability over a four-month period was established on a sub-sample of 69 participants resulting in 84% receiving the same classification (George, et al., 2011).

Adolescents' and their mothers' attachment representations were coded by two coders who received extensive training from Carol George, an author of the AAP, and have achieved reliability certification. Thirty-seven percent (n = 21) were double-coded for reliability purposes. Interrater agreement for the four major attachment groups was 86% (kappa = .81, $p < .001$). Differences in coding were resolved through conferencing.

Teacher rating of academic performance. As a proxy for academic ability, a one-item score from the teacher's rating of the adolescent's attitudes and approaches to academic tasks was used for the sub-sample of participants who participated in both the mother-adolescent observational task and the larger school-based study. Teachers rated the students on a Likert scale of 1 to 5 with 1 being "not true" and 5 being "very true" for the item "performs well academically."

Results

Preliminary Analyses

Means and standard deviations for all autonomy and co-construction variables are presented in Table 1. The frequencies of attachment representation for both mothers and adolescents are presented Table 2. High rates of adolescent unresolved representations were

found (38%), while relatively low rates of secure representations were found (4%). Insecure classifications were divided between 36% dismissing and 21% preoccupied representations. Given the high rate of adolescent unresolved representations, secondary classifications were used in analyses for both mothers and adolescents to ensure the greatest power for hypotheses related to a specific classification. Secondary classifications were assigned to the adolescent unresolved representations resulting in 4% secure, 57% dismissing, and 38% preoccupied. The two adolescents with secure attachment representations were excluded from these analyses because they were so few in number. Descriptive information regarding the secure adolescents is provided in Appendix F.

The relationships between teachers' ratings of academic performance, narrative length and meaning making were examined to determine whether these variables should be controlled in further analyses. The bivariate correlations showed no significant relationship between teacher ratings of academic performance with either meaning making (n =39) (r = .05, p = .75), or narrative length (Full sample, N = 51) (r = .16, p = .33). Further, narrative length was not related to level of meaning (N =51) (r = .11, p = .47); thus, these variables were not entered into further models.

Correlations Between Autonomy and Meaning Making

While 24 adolescents made no meaning and two adolescents learned lessons, 19 gained some meaning and 6 had well-formed insights. Based upon this distribution of the type of meaning made, the codes were then collapsed into a dichotomous variable for analysis, reflecting meaning made (some meaning and gaining insight; n = 25) and no meaning made (no meaning and lesson learning; n = 26).

To examine whether adolescents who exhibit more autonomous reasoning are more likely to make meaning from their self-defining memory, point-biserial correlations were used to investigate the associations between meaning making and three indices of adolescent autonomy: observed autonomy and relatedness, adolescent ratings of autonomy, and observed reasons. The results indicated no significant associations between meaning making and observed adolescent autonomy (r = .13, p = .36,) adolescent reported autonomy (r = .16, p = .34), or observed reasons (r = .00, p = .99).

Autonomy and Co-Construction predicting Meaning Making

Logistic regression analyses were used to examine the relationship between elements of maternal co-construction, adolescent autonomy, and the meaning made. Prior to the analyses, all continuous predictors were centered to reduce multicollinearity (Aiken & West, 1991). In each model, one of the indicators of autonomy and either a score for narrative structure (i.e., a total count of utterances classified as elaboration, evaluation, or questions), narrative content (i.e., a total count of event, emotion, or explanation utterances), or global scaffolding (i.e., maternal effectiveness, or discussion lead) were entered. Finally, the product of autonomy/relatedness and the score for either narrative structure or content was entered.

Results of the logistic regression analyses indicated that mother's statements of explanation and all three measures of adolescent's autonomy (i.e., adolescent observed autonomy/relatedness, adolescent observed reasons, and adolescent report of autonomy), significantly differentiated those adolescents who were judged to have made meaning vs. those who did not make meaning (χ^2 (3) = 7.62, p = .05), (χ^2 (3) = 8.07, p < .05), (χ^2 (3) = 11.6, p < .01), respectively (see Table 3). For both observed adolescent autonomy/relatedness and observed adolescent reasons, 12 of 25 adolescents who made meaning (52% accurate) and 20 of

26 adolescents who did not make meaning were correctly classified (77% accurate). Overall 64.7% of the participants were correctly identified, exceeding the rate of classification that would be predicted by chance alone. For reported adolescent autonomy, 13 of 19 adolescents who made meaning (68% accurate) and 14 of 17 adolescents who did not make meaning were correctly classified (82% accurate). Overall 75% of the participants were correctly identified, exceeding the rate of classification that would be predicted by chance alone. Only mothers' statements of explanation contributed significantly to the goodness of fit model, suggesting that meaning making can be predicted by mothers' statements of explanation (Table 3). Notably, none of the autonomy and co-construction product terms were significant.

Logistic regressions were also performed for other potential predictors of meaning making; however, none were found to significantly impact the model. These analyses included measures of observed autonomy/relatedness, observed adolescents' reasons, and self-reported autonomy with indices of co-construction including elaborations, emotion-talk, event-talk, confirmations, negations, questions, type and number of strategies used to develop the topic. Additionally, global measures of the conversation including leading the discussion, and effectiveness of keeping the adolescent on topic were entered, and no significance was found.

Adolescent Attachment and the Meaningful Event Content

Due to the low frequency of occurrence in many of the specific event categories, these categories were collapsed into 3 broader categories: *self-focused events* (n = 34) (including: injury to self, recreation/exploration, achievement/mastery, autonomy), *interpersonal events* (n = 14) (death/injury to other, relationship event, guilt/shame), and *non*-events (n = 3). The designation of non-event reflects a transcript that did not contain an actual event as the dyad was

either off-topic or engaged in a conversation about the adolescent's character without discussing an event. Non-events were excluded from further analyses.

To examine if adolescents' attachment representation influences the content of the meaningful experiences they discuss, the Fisher's exact test was employed. This test was utilized due to small cell size violating the assumptions necessary for chi-square tests. Results demonstrated that there were no significant differences amongst dismissing or preoccupied adolescent attachment representations in the content of meaningful events discussed (Fisher's exact, $p = .36$). For counts of content of meaningful events by attachment representation, see Table 4. Similarly, the observed valence with which the dyad spoke about the topic (positively, negatively, or both) did not differ by adolescent attachment representation (Fisher's exact $p = .65$). The coder-assessed valence of the main topic was marginally significant (χ^2 (1) = 3.03 $p = .08$) with a medium effect size (Cohen's $d = .30$), suggesting that there is a trend towards a relationship between the valence of the topic and adolescent attachment representations, such that dismissing adolescents are more likely to talk about positively valenced events. For counts of observed and coder-rated valence by attachment, see Table 5. Additionally, Fisher's exact tests indicated that neither the valence, nor the topic of the event influenced whether the adolescent made meaning.

Co-Construction and Adolescent Attachment

T-tests were used to examine differences in use of co-construction elements among adolescents with dismissing and preoccupied attachment representations. No statistically significant difference between any adolescent or maternal co-construction elements for these two groups was seen (see Table 1 for means and standard deviations). To more specifically examine how adolescent attachment may influence the balance of contributing to the discussion via co-

construction, adolescent-mother standardized residuals scores for each element of co-construction were calculated and t-tests were used to examine group differences based on adolescent attachment. Results showed that there were no statistically significant differences for standardized residuals and adolescent attachment representation.

Adolescent Attachment and Meaning Making

Chi-square analysis was used to examine whether adolescents' preoccupied and dismissing attachment representations were related to the meaning made from their important experiences. There was no significant difference in the attachment representation and meaning made from the task (χ^2 (1) = .02 p = .57.).

Maternal Attachment and Co-construction

Next, the likelihood that mother's attachment representation influenced the method through which she scaffolded the topic for the meaning making discussion was examined. Again a Fisher's Exact Test was conducted due to the number of cells with fewer than 5 participants. No significant findings emerged for any of the scaffolding methods. See Table 6 for counts of maternal scaffolding of topic selection by maternal attachment representation.

T-tests were used to examine differences in use of co-construction elements among mother's attachment representations. No statistically significant difference between any maternal co-construction elements for these two groups was seen (see Table 1 for means and standard deviations).

Further, no significant findings emerged when examining how maternal attachment may influence the balance of contributing to the discussion via co-construction. T-tests were used to examine group differences of adolescent-mother standardized residuals scores based on maternal

attachment. Results showed that there were no statistically significant difference for standardized residuals and maternal attachment representation.

Maternal Warmth

A measure of global warmth and connectedness between mother and child was assessed during the self-defining memory task. Correlation analyses with measures of co-construction and autonomy were conducted. Maternal warmth and connectedness was associated with observed adolescent autonomy and relatedness ($r = .32$, $p < .05$) and self-reported autonomy ($r = .32$, $p < .05$) but not with observed reasons. For elements of co-construction, warmth was negatively associated with adolescent negations, ($r = -.33$, $p < .05$) indicating that the more connected they were, the fewer statements of adolescent disagreement.

T-tests revealed that there was no significant difference in warmth regarding those who made meaning and those who did not. Similarly, there was no difference in warmth regarding child or mother's attachment representations.

Discussion

This study builds upon the growing meaning making literature. By examining younger adolescents, through the use of a primarily observational and interview-based study design, the role of maternal co-construction, attachment, and autonomy in contributing to early adolescent meaning making were evaluated. The findings indicated that adolescent autonomy, attachment, and most elements of co-construction did not directly impact adolescent meaning making ability in this study, suggesting that further research may be needed to examine these links more comprehensively. Notably, however, results did show that mothers' statements of explanation predict meaning making indicating that within the context of co-construction, adolescents are able make some meaning.

It was hypothesized that a number of adolescent individual factors would influence their ability to make meaning of their self-defining memory. For instance, I hypothesized that adolescent attachment representation would drive the kind of meaning that adolescents would make, given the role of these representations in influencing attention to information, interpretation of experiences, ability to regulate emotion, and expectation of their mothers' availability to support them in their endeavors. Yet, adolescent representations were not associated with variations in meaning making. This may be in part because attachment in adolescence reflects emotion regulation skills (Allen & Miga, 2010), and the self-defining memories elicited in the task may not have provoked emotions that called for skillful regulation. Alternatively, the findings of this study suggest that the attachment framework may have come into play in the identification of salient events rather than in the process of searching for meaning within them. For instance, a trend emerged indicating that dismissing adolescents were more likely to discuss positive events. This suggests that dismissing adolescents may regulate their emotions by avoiding emotionally provocative topics and minimizing emotional expression. By discussing positive topics, adolescents may remain more regulated and less reliant upon their mothers for extended support.

Another way of thinking about attachment is as an internal working model. It was expected that self-defining memories would be emotionally salient and thus activate the internal working model in a similar way to the AAP and AAI (Crowell, Fraley, & Shaver, 2008; Hesse, 2008), and in turn, impact the ability of the adolescent to make meaning. Notably, however, not all of the memories discussed would have activated the internal working model owing to both the level of emotional salience of many topics, and the amount of time spent discussing the memory. Many of the adolescents spent a considerable portion of the interaction deciding upon a memory

to discuss and less time actually discussing it. Therefore, the brevity of the discussion may not have activated the internal working model. Alternatively, it is possible that the lack of attachment security amongst adolescents may have led to less meaning made. It was hypothesized that adolescents with secure attachment would have the highest likelihood of making meaning and gaining insights, because they are most likely to have an internal working model that include expectations of safety and care, as well as good emotion regulation skills; thus, they may have both the psychological and emotional space to make the most insights from memories. The low number of secure adolescents within the sample made it impossible to compare the secure versus insecure groups. Instead, using secondary classifications, data were analyzed. Null results demonstrated that there is no distinction amongst insecure adolescents in meaning making; therefore, to examine the role that attachment security may play in meaning making, this hypothesis may need to be explored in a sample with more secure adolescents.

Attachment is an organizational construct that reflects both emotion regulation development as well as many aspects of ongoing attachment relationships (Allen, 2008). Relationally, parents are still attachment figures in adolescence (Fraley & Davis, 1997) and adolescents do turn to parents in times of stress (Steinberg, 1990). The attachment "sensitivity hypothesis" suggests that a sensitive and prompt response to infants' attachment signal is the path to secure attachment (Van IJzendoorn & Sagi-Schwartz, 2008). This kind of response pattern was hypothesized to be carried forward in mother's co-construction through assessing and appropriately responding to the adolescent's need for help deciding on a self-defining memory, scaffolding meaning making from the memory, and staying on topic. It was expected that mothers' own representations of relationships might influence the topics they were able to discuss with their children, their ability to flexibly and sensitively meet their adolescents' needs

for support and scaffolding within the discussion, and the capacity to guide their adolescent toward greater meaning making regarding their salient event.

Contrary to previous research indicating that mothers who had an anxious attachment style were more engaged and explanatory in co-constructing their child's memory (age 9-12 years) than mothers who were less anxiously attached (Fivush & Sales, 2006), maternal attachment representations were not significantly associated with variations in co-construction. Further, maternal attachment representations were not significantly associated with meaning making either. This may be related to the aforementioned issues of time spent discussing the topic, and the varying levels of emotionality within the discussions. Alternatively, this lack of association could be related to other salient individual characteristics of the mother such as her own methods of problem solving (e.g., rumination or active coping). Future research may investigate mother's problem solving and coping styles to see if they influence or align with their co-construction. Conversely, salient individual characteristics of the adolescent may also warrant similar examination. Just as maternal characteristics my influence how she may co-construct the memory, adolescent individual characteristics may do so as well. While the present study examined adolescent attachment and autonomy, additional individual adolescent's characteristics that were not examined in the present study such as problem solving style, or psychopathology may also be considered in future research.

Adolescents' level of autonomy was not linked to meaning making either, although it was anticipated that adolescents who exhibit more autonomy would gain insight from their self-defining memories. Regardless of how autonomy was measured in this study (i.e., self-report or observation), no associations were found with meaning making. These findings suggest that the skills essential to autonomy do not appear to facilitate adolescents' ability to gain insight into

their self-defining memories. It is possible that adolescents with higher autonomy were less likely to share their most self-defining memory during the co-construction task. As adolescents become more independent, they are likely having more experiences that neither involve parents, nor are discussed with parents. Further, adolescents may no longer need their parents to help them co-construct and make sense of their self-defining memories. Instead, they may be relying more heavily on peers for this kind of support. More autonomous adolescents may also be thinking introspectively about their self-defining events. Choosing to share these thoughts with their parents reflects a number of adolescent-salient factors such as trust, independence, closeness with friends, or relatedness to parents. Additionally, unshared memories may involve rule breaking, and thus adolescents may fear consequences and therefore avoid discussing such events with parents. These factors may have resulted in a narrower scope of possible topics discussed in the present study. Future research might first assess early adolescent meaning making independently from their parents. Doing so would allow for a more direct comparison to McLean's studies (e.g., McLean, 2005; McLean & Pratt, 2006; McLean & Thorne, 2003) and would establish a baseline of early adolescent meaning making. This format may also add to the confidentiality necessary to access a broader array of adolescent self-defining memories. By first independently assessing adolescent meaning making, and then adding parents to the process in a follow-up session, researchers could measure both meaning making and the role of co-construction more effectively through observed differences.

The match between adolescent autonomy and maternal co-construction processes did not shape adolescent meaning making either. It was hypothesized that matching how the mother co-constructs the self-defining memory to adolescent's autonomy would be fundamental to meaning making such that the higher the adolescent autonomy the less co-construction would be useful to

make meaning, and the lower the autonomy the higher the need for co-construction to make meaning. However, the findings did not support this conclusion. It is possible that the adaptation of the amount of co-construction in response to autonomy is not as flexible a construct as hypothesized. For example, mothers may have a style of interacting with their child that is not dependent on the level of autonomy. This may be due to a lack of sensitivity to their adolescent's autonomy. Alternatively, mothers' variation in how they accommodate for autonomy may not be detectable by the present measure of co-construction (i.e., counts of conversational elements).

Lastly, the study may have incorrectly assumed that adolescents' demonstrated autonomy is constant throughout differing tasks, and that mothers would therefore attend to them accordingly. The adolescents; thinking, decision-making, and approaches to the self-defining memory task may not have highlighted their autonomy skills. Thus, mothers would not vary their co-construction in terms of autonomy because the adolescent is not employing their autonomy-based skills.

Whereas the individual factors did not influence meaning making, it is noteworthy that variations in patterns of meaning making did emerge. In the present sample, about half of the adolescents gained some meaning from their self-defining memories, whereas only two adolescents learned lessons, and about half had no evidence of making meaning at all. While marked, this pattern is inconsistent with previous research in which lessons were more common at younger ages and meaning became more complex over the course of the lifespan (McLean, 2005; Pratt, Norris, Arnold, & Filyer, 1999).

Much of the sample made *some meaning* from their self-defining memory, where *some meaning* is operationalized as self-explanations that are neither future-oriented nor applicable to a broader context as they are in *gaining insight*. Yet, when placed on a continuum, *some meaning*

is more advanced than learning lessons. These findings may indicate that within the context of co-construction, adolescents are able to do more than just learn lessons—that is, they are able to make *some meaning*. Results show that mothers' statements of explanation—whereby the mother explains or interprets the event for her adolescent—predict meaning making. Notably, *adolescent* statements of explanation—that is, when the adolescent explained why the event happened—were the element of co-construction most likely to be coded as meaning making. Therefore, explanatory statements from mothers may be instrumental in cueing adolescents to make meaning. Interestingly, no other elements of co-construction—such as questions or elaborations on details of the event—predicted meaning making.

This suggests that early adolescents may use parents to explain and interpret events for them, thus perhaps parents make meaning for them and adolescents subsequently adopts this meaning as their own. This finding hints that early adolescents may indeed need their parents to help them make some meaning of their self-defining memories. Data in this study did not allow for analyses that examined the sequence of parent and adolescent statements and therefore in order to truly tease this apart, future analysis should study the order of the explanatory statements. If adolescents are indeed adopting their parents' interpretations as their own and are unable to generate it independently, this may be further indication of a developmental path for this skill. Additionally, it would be particularly important to assess early adolescent meaning making independently from a co-constructed discussion in order to understand what abilities adolescents have to make meaning on their own. If, however, adolescents are drawing these conclusions on their own and parents statements of explanation are re-emphasizing or expanding on them, it may provide some understanding into the strong ability of early adolescents' ability to make meaning at younger ages as well as provide insight into the timing and trajectory of

meaning making ability. Such research has implications for how parents can support their adolescent to appropriately make meaning. Potentially, mothers' use of explanatory statements model meaning making approaches or alternatively re-emphasize the explanatory statements and meaning making work in which the adolescents are already engaged.

It is also possible that mother's co-construction and scaffolding of the adolescent's ideas lead to a personally relevant understanding of themselves (i.e., some meaning) due to demands of the task. The task for the present study was not explicit about making meaning, but rather was explicit about explaining a self-defining memory. The operationalization of *some meaning* aligns well with a self-defining memory task, as the task pulls for more personal revelations. For example, adolescents in the study might conclude that "playing soccer really taught me that I am a dedicated person." These statements were coded as *some meaning* and were very much aligned with the task of "help[ing] to explain a part of who you are" as described in the self-defining memory task. Soccer may have also taught this individual to be on time, run faster, or to be part of a team, however these lessons were less relevant to the discussion. Thus, the task instructions may have evinced a larger proportion of some meaning rather than lesson learning.

The established mother-child relationship dynamic, independent from co-construction process, is also important to consider. This dynamic is a pattern of behavior and expectations that may be specific to the individual parent-child dyad. This pattern may be influenced by attachment, but it is not necessarily driven by it. For example, regardless of attachment, some mothers may be in the habit of doing things *for* their child. Because this dynamic exists, it is not necessarily indicative of whether or not the child *can* make meaning, but whether or not they do it within a conversation with their mother. Other patterns of behavior may be influenced by the interaction of the dynamic and the task. Individual factors may also play a role within these

dynamics. Warmth was assessed in an effort to account for such a factor; however, results indicated that it did not play a role in meaning making. Individual stress or psychopathology may also influence relationship dynamics. Mothers who are anxious, for example, may be more sensitive to the pressure to complete the task and may be more likely to do more for the adolescent which the adolescent, in turn, allows because it is part of their relational dynamic. Alternatively, anxious mothers may potentially avoid upsetting topics and thus may indulge their child's efforts to avoid the task and engage in tangential discussions. It is important to acknowledge these unique dyadic factors that may be present. Future research may endeavor to account for more of these individual factors by specifically assessing for personality and psychopathology factors that may influence co-construction. Additionally, future studies may seek out these differences to compare how varying types of personality styles or psychopathology may influence co-construction, e.g. comparing co-constructed meaning making of children with parents who are diagnosed with anxiety, depression, or other disorders.

While co-constructing the topic may have led to half of the study's adolescents making some meaning, it may have played a role in the other half of the sample not making meaning at all. Co-construction may have confounded the assessment of both adolescents' choice of a self-defining memory as well as their meaning making ability. For example, the adolescents may have chosen to discuss a topic familiar to their parents (e.g., achievements, injuries, recreation/sports), thus excluding more powerful events outside of their parents' knowledge (e.g., substance use, or a first kiss). Topics that are more familiar to their parents may be focused on the adolescent, rather than the adolescent's relationship with others, thus these self-focused events may lead them to discuss the meaning in a way that was coded as *some meaning* or *no meaning*, rather than *gaining insight* or *learning lessons*. The study design valued and sought to

capture some of this dyadic process by which adolescents, with the support of their mothers, may make meaning of their self-defining memories, however the design may have introduced a potential trade-off in results, such that these topics may not have been conducive to gaining insight or learning lessons. Alternatively, it is possible that some adolescents may not have experienced self-defining memories that would warrant such reflection. As a result, these adolescents and parents co-constructed a self-defining memory that was more artificial than genuinely meaningful, thus leading to making no meaning.

It is important to consider if not making meaning is adaptive in some way. In Park and Folkman's (1997) model of global and situational meaning, the authors propose that meaning making is not always beneficial because, for some individuals, this kind of thinking may be a vehicle towards rumination rather than adaptive coping through meaning. In memories involving trauma and transgressions, Lilgendhal, McLean, and Mansfield (2013) found that healthy meaning making (i.e. self-growth versus view as a damaged or bad self) depended on certain personality constructs such as neuroticism and beliefs about whether personality can change. In the present sample, 33% of the self-defining memories were coded as having a negative valence. Thus, for youth in the present study, making meaning of negative events may not be positive, and in turn, not making meaning may have been adaptive. For early adolescents, it is possible that cognitive development may be an additional moderating factor to not only gaining insight itself, but also gaining insight in an adaptive way.

Developmentally, it was surprising to see that few of the early adolescents were learning lessons as a form of meaning. Such a result may suggest that the study is not fully capturing the meaning making experience for adolescents. Park (2010) argues that measuring meaning making as is done by this study does not account for *attempts* to make meaning. The measurement of

meaning making in this and other studies (e.g., McLean & Mansfield, 2011; McLean & Pratt, 2006; McLean & Thorne, 2003) examine static indicators of meaning made, rather than examining meaning as an on-going process. It may be prudent to consider ways to account for the meaning making *process* particularly during earlier stages of development. Doing so would illuminate both the adolescents' engagement in the process and their potential for further development of meaning making skills. As this task may have been the first time that these adolescents were reflecting on self-defining memories, it is possible that this conversation may have sparked nascent attempts at meaning making that could be more fully developed later, but would not necessarily emerge within the scope of the task. Thus, it may be important to further explore the process of meaning making, rather than simply meaning made. Moreover, exploring the process and early attempts at meaning making may be particularly appropriate as it applies a more developmental approach. One way to measure the process of meaning making would be to examine the adolescent's narrative of their experience with an emphasis on looking for statements of new uncertainty, ambivalence, or attempts at thinking about the event. For example, counting statements such as "I don't know, I guess [this event] was important" as evidence that the adolescent is moving towards thinking about the event in a new way, even if they do not arrive at any kind of meaning.

Although this study has many strengths—notably the observational and interview-based design, as well as multiple reporters—it is limited by a number of factors. First, the sample size may not have allowed for the power or variance necessary to see significant results in some analyses. Additionally, while most of the codes for co-construction had strong coder reliably, some of them were marginally reliable (ICC = .70). While this is within an acceptable range, it is possible that inconsistent coding added more error to the data leading to fewer significant

results than hypothesized. Within the sample itself, the lack of ethnic and gender diversity limited the ability to examine how these factors may have impacted the results. In previous research, boys and girls differ in co-construction such that boys receive more scaffolding from parents (McLean & Mansfield, 2011). These differences may have been present in the sample but could not be examined. Differences in ethnicity may also play an important role. The impact of autonomy on adolescent development varies in the context of risk such that for high-risk families, maternal undermining autonomy was positively linked with mother-adolescent relationship quality, and adolescent autonomy is linked with negative indices of social functioning (Boykin McElhaney & Allen, 2001). As risk is often confounded with ethnicity and SES, it is plausible that maternal warmth's association with adolescent autonomy might differ. Future research should consider a larger sample size with a more gender, ethnically and socially diverse sample so that these important questions might be tested.

The results of this study add descriptive information to the literature regarding what early adolescents and their parents consider self-defining memories. Further, the results suggest that adolescents may still be using their parents to make meaning from their experiences. The pattern of meaning making within early adolescence does not wholly align with previous research and suggests that complex meaning may not have a linear developmental trajectory. Further, this pattern of meaning making may be influenced by both the type of event discussed and whether it is discussed independently or co-constructed with significant adults such as one's mother. Future research is needed to investigate the nuances of these findings, where this study serves as an initial foray into the realm of early adolescent meaning making in the context of a dyadic relationship.

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Table 1

Means and Standard Deviations

	All Adolescents	All Mothers	Preoccupied Adolescents; Mothers' Co-Construction	Dismissing Adolescents; Mothers' Co-Construction
Element of Co-Construction				
Elaboration	28.10 (12.56)	17.27 (10.81)	18.50 (11.88)	16.3 (10.48)
Explanation	1.75 (2.23)	1.90 (2.71)	1.67 (1.91)	2.22 (3.33)
Emotion	2.61 (2.74)	1.80 (2.03)	2.06 (2.61)	1.26 (1.43)
Event	23.92 (11.92)	22.27 (11.70)	24.39 (11.70)	21.89 (12.24)
Repetitions	1.25 (1.44)	1.22 (1.59)	1.17 (1.58)	1.22 (1.76)
Questions	4.10 (3.86)	14.10 (8.22)	16.72 (9.13)	12.70 (7.26)
Confirmations	5.40 (4.6)	3.18 (3.08)	3.39 (2.85)	3.04 (3.50)
Negations	1.06 (1.57)	.63 (.94)	.78 (1.06)	.56 (.93)
On-Topic	45.24 (18.27)	45.49 (18.41)	48.89 (18.97)	43.11 (17.66)
Global Scaffolding				
Maternal Effectiveness		3.34 (1.15)		
Discussion Lead		2.92 (1.14)		
Measure of Adolescent Autonomy				
Observed Autonomy & Relatedness	8.19 (2.23)			
Observed Reasons/Points	1.94 (.63)			
Confidence	2.55 (.81)			
Self-Report Autonomy	3.77 (.53)			
Strategy for Scaffolding of Co-Construction				
Number of Strategies		1.24 (.43)		
Offer Menu		.04 (.20)		
Offer a Strategy		.53 (.50)		
Offer One Suggestion		.29 (.46)		
Other		.37 (.49)		

Table 2

Distribution of Attachment Representation Classifications from Adult Attachment Projective Picture System

	Primary Attachment Classifications			
	Secure	Dismissing	Preoccupied	Unresolved
Adolescents	2 (4%)	17 (36%)	10 (21%)	18 (38%)
Mothers[1]	9 (26%)	7 (20%)	5 (14%)	14 (40%)
	Secondary Attachment Classifications			
	Secure	Dismissing	Preoccupied	
Adolescents	2 (4%)	27 (57%)	18 (38%)	
Mothers	11 (31%)	14 (40%)	10 (29%)	

[1] Missing data for 16 mothers resulted in a sample of 35 dyads for this analysis.

Table 3

Logistic Regression Analyses for Predicting Adolescent Meaning Making from Autonomy and Mothers' Explanation Statements

	Observed Autonomy/Relatedness					Observed Reasons					Autonomy Self-Report				
	Wald χ^2	B	SE	OR	95% Confidence interval	Wald χ^2	B	SE	OR	95% Confidence interval	Wald χ^2	B	SE	OR	95% Confidence interval
Observed Autonomy/ Relatedness[1]	.01	-.02	.16	.98	.72 – 1.34										
Observed Reasons[2]						.01	.06	.58	1.06	.34 - 3.32					
Autonomy Self-Report[3]											.07	-.32	1.23	.80	.07 – 8.12
Mothers' Explanations	3.75*	.45	.23	1.57	.99 – 2.49	3.78*	.37	.19	1.44	1.00 - 2.08	4.57*	.71	.33	2.04	1.06 – 3.92
Autonomy Measure X Explanations	.26	-.06	.11	.95	.77 – 1.17	.53	.36	.49	1.43	.55 - 3.74	.74	-.78	.91	.46	.08 – 2.73

Notes: [1]Overall model, χ^2 (3) = 7.62, p = .05. The overall correct classification for this logistic regression was 64.7%. *p = .05.
[2]Overall model, χ^2 (3) = 8.07, p < .05. The overall correct classification for this logistic regression was 64.7%. *p < .05.
[3]Overall model, χ^2 (3) = 11.6, p < .01. The overall correct classification for this logistic regression was 75%. *p < .05.

Table 4

Counts of Meaningful Event Content

	Dismissing	Preoccupied
Self-focused	18 (40%)	14 (31%)
Interpersonal	7 (16%)	4 (9%)
Non-Event	2 (4%)	0 (0%)

Note: Coder-rated valence was only assessed as either positive or negative

Table 5

Counts of Observed Topic Valence and Coder-Rated Topic Valence

	Dismissing			Preoccupied		
Type of Valence	Positive	Negative	Both	Positive	Negative	Both
Coder-assessed valence	20 (47%)	5 (12%)	--*	9 (21%)	9 (21%)	--*
Observed Valence	15 (35%)	4 (9%)	6 (14%)	10 (23%)	6 (14%)	2 (5%)

Note: *Coder-rated valence was only assessed as either positive or negative

Table 6

Counts of Maternal Scaffolding of Meaningful Event Topic Selection by Mothers' Attachment Representations

	Secure	Dismissing	Preoccupied
Offer Menu	2 (4%)	0 (0%)	0 (0%)
Offer a Strategy	7 (16%)	8 (18%)	3 (7%)
Offer One Suggestion	5 (11%)	4 (9%)	5 (11%)
Other	4 (9%)	2 (4%)	5 (11%)

Appendix A

Prompt for Meaningful Event Task

I want you [adolescent] to think of an important experience from the past, which helps to explain a part of who you are. This memory can be from any period of your life. It should be a memory of a specific event in your life that you remember clearly and that still feels important to you even as you think about it now. It may be a memory that is positive, negative, or both in how it makes you feel – but it is likely that it leads to a strong feeling. I want you to pick a memory that you have thought about many times and that feels familiar to you.

Imagine that you have just met someone you like very much and are going for a long walk together. You really want the other person to get to know the "real you." You want to provide as much detail as possible so as to help your imagined friend understand your experience and how it has affected you. Think for a moment about who you are and try to come up with an experience and how it has affected you. Think for a moment about who you are and try to come up with an experience that represents an important part of yourself.

You (parent's name) can help (child's name) to describe this event and its impact on (child's name).

You may want to talk about where you were, whom you were with, what happened, how you and others reacted, as well as any other details that seem important to you both. Make sure to include enough details that will help an imagined friend see and feel as you did, (adolescent's name). You'll have about ten minutes to complete this task.

Appendix B

Manual for Coding Events in ”Meaningful Event” Memories

Based on the manuals by
Avril Thorne & Kate McLean
University of California, Santa Cruz
August, 2001

Adapted by Amanda LeTard
July 2013

Overview: Types of Events in Self-Defining Memories
Original event categories were developed by sorting a sample of 600 written self-defining memory narratives. About 80% of the narratives came from white college students (ages 18-22); about 5% came from older adults (ages 40-88).

The event categories reflect the primary concern that is emphasized in the narrative. The categories were developed to be **mutually exclusive**; each narrative is coded into only one category. Of course some narratives reflect multiple concerns, but so far we have found few of these (see the "not classifiable" category).

Event type	**Primary concern**	**Sub-category and code**
Life-Threatening Event (LTE)	basic safety; mortality	**11**. Death or serious illness or injury of someone else **12**. Serious accident or illness of self **13**. Physical assault to oneself **19**. LTE not classifiable
Recreation / Exploration	exploration, fun	**2**
Relationship	interpersonal relationship	**31** Conflict **32** Intimacy **33** Separation **39** N/A
Achievement / Mastery	effortful mastery; goal attainment	**4**
Guilt/shame	doing right vs. wrong	**5**
Autonomy	**Independence, doing something for the first time**	**6**
Event not classifiable		**99**

CODING PROCEDURE:

1. Print out a coding sheet
2. Watch tape with transcript
3. Note the topic(s) that the adolescent and parent bring up
4. Note who suggests the topic and what line of the transcript it appears
5. Write a brief summary of the topic selected
6. Determine the appropriate event type

** You are coding the MAIN event. Ideally, this is made clear because this is the event for which the adolescent may *make meaning* and chooses to talk about for his event.

Many topics may be suggested and dismissed. This topic is the one that both sparks discussion and, likely attempts at meaning making are made.

EVENT TYPES: DEFINITIONS AND EXAMPLES

1. LIFE-THREATENING EVENT

Examples: deaths, accidents, assaults, severe episodes of physical or mental illness.

Events in which issues of life and death, or physical well-being, structure the narrative, so that the narrative is built around the life-threatening event. Mortality concerns may not be emphasized, but if the description of the event indicates the plausibility of severe physical injury or death , the event qualifies as life-threatening. The event may involve risk to oneself, or the death or injury of someone else. If emotions are mentioned, the emotions are usually fear (for events threatening oneself) or sadness (in response to someone's death).

In classifying narratives into event categories, it is important to imagine what the event would have felt like. Would it have been scary, given the situations and the age of the person? In the following narrative, the reporter seems to have been very terrified, even though as adults, we know that the event should not have been scary. We therefore coded this event as an LTE. (in the "accident" category).

> [Age 6]: My family (mom, dad, brother) and I were at the Grand Canyon with our neighbors. I was running and I fell and I was by myself and I went crying to my mom, she left me with my dad to go find band-aids, because I had scraped my knee really badly. So I was sitting next to my dad and I saw these huge butterflies flying around and I asked my dad why they were so big and he said because they were man eating butterflies and they could smell my blood, and they wanted to eat me. So I ran again screaming trying to get away from them. I could hear my dad laughing.

In the following narrative, the reference to "intense love for my parents" would suggest that the narrative concerns a relationship event; however, because the story is built around the event of her father's surgery, the narrative should be coded as a life-threatening event:

> I have a vivid memory of seeing my father in a S.F. hospital recovery room after bypass heart surgery in the early 1980's. I walked into the room with my mother. I remember many emotions all at once: Relief that he was alive, shocked and afraid that he looked so near death, and intense love for my parents.

Please code each life-threatening events into one of the following subcategories, or "LTE types". With the exception of the first category, all of the LTE types center on events that threaten oneself rather than another person.

Life-Theatening Event Subtypes:

11. Death or serious illness/injury of someone else (person or animal)

Examples: Death of a family member, friend suffers from AIDS, friend seriously injured in car accident, suicide of a rock star (Kurt Cobain)

Sample narratives:

> "My friend Juan killed himself with a gunshot through the heart. I remember getting the phone call that he had died, my hands went numb and all I could hear was my heart beating like mad."
>
> "My mom, brother, and I were in Salt Lake City and we were crossing the street when a car came flying through the red into the intersection. It slammed on its brakes but it was too late. My brother was struck, full force and thrown across the pavement. The car just sped off. My mom and I ran to him, he was still breathing, called 911. He was in the hospital for six weeks, three broken ribs, a fractured leg bone, and bruises everywhere."

12. Serious accidents or illnesses (to oneself)

Events in which one's own physical well-being is at risk, although others may also be at risk.

Examples: car wrecks, near-drownings, serious biking accidents, severe physical or mental illness, serious surgeries, suicide attempts, severe anxiety attacks with somatic symptoms.

Sample narratives:

> [Car accident]: It was the first day of Christmas break. My friend and I were driving to get breakfast. We were going down a hill when a deer ran out. My friend lost control of the car and we spun out of control until we rolled three times."
>
> [Near-drowning]: When I was 15 I played High School water polo. Everyday after practices we had to cover the pool with these heavy blue tarps which helped to keep the pool heated. One night in late fall I was pulling the last tarp. Everyone else had already got out of the pool. I had to make sure one of the tarps was properly attached to the wall.
> To do this I needed to swim under one of the tarps that was already secured. A friend pulled back a corner of the tarp so that I'd have a little opening to come out at. Just as I dove under the water and began to swim the lights in the pool went out. Because it was dark out anyways and the pool was completely covered it was pitch black under water. I panicked and tried to pop up for air, but when I surfaced there was a heavy tarp over me.
> I began swimming underwater feeling for the opening. I began to run out of air, so I pushed with all my might and managed to lift the tarp a little. This created an air pocket where I could breath. I had to stay there treading water alone in the dark until my friend could get the lifeguards to turn the light back on. It was a painfully terrifying experience."

13. Physical assaults (to oneself).

Events in which physical aggression is directed at oneself (also possibly others), or could plausibly be

felt to be directed at oneself. Perpetrator is usually a parent or peer. Narrative is organized around the aggression and its consequences, which might ultimately be positive or negative. Childhood events involving aggression may seem less severe, but if narrative explicitly refers to feelng afraid, or crying in the face of aggression, the narrative can probably be classified into this category.

Sample narratives:

> [Getting beaten up]: In the 9th grade I was eating lunch with my friends when all of a sudden 6 guys entered the building. They began to randomly beat people up, starting with me.
>
> [Domestic violence]: When I was 5, I remember my parents fighting, something about money and a trip to Hawaii. Heard something rip in the kitchen and mom got in the car and drove away. Dad came down the hall very angry and kicked the wall hard and made a hole. I was five and Jenny was two and we cried so hard. Dad hugged both of us and went to the garage and got something to fix the wall. He came in and fixed it and we stopped crying. I remember being lost and terrified.
> *[Presumably, the kids were terrified when dad came down the hall; they presumably did not know what he was going to do next]*.

Marginal case, but counted as an assault:

> [Thrown in the water, crying]: When I was 10, we had rented a boat and skis to go water-skiing and we got to the lake and had everything set up, but me and my sisters didn't want to get into the water because it was too cold. My dad got angry since we all wanted to go in the beginning and now we were backing out. So my dad picks me up and threw me in the water crying and made me put on the skis and learn how to waterski. All the time I was mad, but I learned how to ski and I ended up loving it. This image pops up when I think about my dad and it makes me laugh because I was so pissed that I wouldn't admit that I had fun while I was out there. Even though my dad knew since we ended up buying a boat and everything later on. It makes me think how my parents pushed me to try different things and I appreciate that a lot because I think it made me a more complete person.
> *At the moment of being thrown in the water, the reporter seemed to have been terrified. The event is now viewed as a growth experience, but at the moment, it was not considered to be one.*

Marginal case, but counted as an assault:

> [Tickled to the point of sobbing:] When I was growing up, my uncle was always present in our family functions, and still is. He could be considered a "jokester". He loved to tickle my sister and I. It was fun until the time he pinned me down and left me with no control of the situation, tickling me, ignoring my pleas to let me up. Then it wasn't funny, but scary (that I had a lack of control over the situation) and I was sobbing. Nobody really understood my feelings and looked down upon me for being a baby about the ordeal.
> *[Tickling may not seem life-threatening, but the fear and sobbing due to the tickling seemed sufficient to code as a n assault. Note that we did not code as a sexual assault because reporter did not define it as such]*.

19. LTE not classifiable: life-threatening event does not fit into any of the above

categories.

2. RECREATION / EXPLORATION

Examples: riding a cow, a lively cake fight, being mischievous for the fun of it, running naked in a field of flowers; a lovely hiking trip, shooting a gun, discovering the pleasures of reading, catching a fish, breaking a toe en route to Hawaii; first time stoned; sneaking into a concert, experiencing skydiving or bungee jumping, experiencing an unexpected spiritual moment, or peak experience.

Narratives center on recreational activities, such as hobbies, parties, dances, traveling, vacationing, or sports.

Emphasis is on recreation, play, or exploration, rather than achievement striving, or concerns for safety, or concerns about relationships. If an attempt at recreation is obstructed, can also count as a recreational event so long as the obstruction is not life-threatening (see Hawaii example, below).

Spiritual moments that are framed as moments <u>in themselves</u>, and not framed as a decision to redirect one's life, count as recreation/exploration, not as achievement.

Note: If serious injury or fear for safety dominates the narrative, code as life-threatening event.
Sample narrative:

> [Graduation party:] Last day of school we all had our graduation party at a fraternity house at UC Berkeley. Everyone was drunk, happy, dancing. It was so much fun and I won't ever forget it. everyone got along, no grudges!
>
> [Obstructed trip to Hawaii]: I walked out of my front door and somehow managed to step on the outer left side of my left foot. I fell, but got up and limped inside. I had just turned 18 and was 1 day away from going to a concert, and 3 days away from going on a trip to Maui (a B-day gift from mom). My mom said "You didn't go and break your foot right before our trip did you?" Of course within minutes I was hysterical and I knew that I would have to go to Maui on crutches.
> *Note: Do not code as life-threatening event. The primary concern is not the broken foot, but the impingement on enjoyment of the vacation.*
>
> [Sneaking in to a Dave Mathews concert]: We had to trek through bushes to find a hole in a fence. Eventually we found it, then we hopped a fence, crossed a stream where somehow only one foot got soaking wet, then we hopped another fence on which I got caught and ripped a whole in my pants, then we hiked up a hill and eventually reached the last fence. Ted and Al jumped over-I followed and got in just as a security guard came. I ran and hid. We lost Sue and Andy -but they got in later and found us.
> *Note: Do not code as guilt/shame (no such emphasis); do not code as relationship (focus is on the advernture, not on relationships, which are not the focus of this marrative; fun and mischief is the focus).*
>
> [Great horned owl] I was on a trail below my house (parents) taking an enjoyable walk alone. While passing a tree which my family and I always call "the big oak tree" I suddenly jerked my head upward—meeting eyes with this owl. My immediate reaction was one of amazement and then appreciation. It eyes were locked with mine—an intense gaze that is hared to describe. A raw, honest, soulful feeling emanated from the owl's eyes. There was nothing fake or misleading in its eyes and that was what was so refreshing but also alien. I felt lucky, and I wanted to tell someone about it.

> [Spiritual moment] I was 13. We were in a McDonald's on the way to a work project in Mexico. Ben and I sat with an old lady (Anne) to read her comics while we breakfast. She talked to us about what we were doing, she spoke of being lonely and eating in McDonald's just to see the people. She then said that she wanted to tell us her wisdom because she had no children to pass it on to. She said that people will laugh at you and criticize you, they will put you down and hurt you but you have to smile because your smile is your armor and that's what Jesus did. We all cried.
>
> [Peak experience] I was hiking in New Mexico for 2 weeks with a large group of my friends. One night I walked out alone on the edge of a large mesa and stared over a huge rocky valley for what seemed like hours. While I was there I gained a new appreciation for nature and began to wonder about my creation. I never believed in religion after that experience.

3. RELATIONSHIP EVENT

If there are multiple relationships in a narrative, code for the most emotionally pressing relationship for the reporter. For example, if the narrative is about walking with a friend and meeting a stranger who changes the reporter's life, code for the stranger relationship, not the friend with whom the reporter was walking.

Event Content:
Event content is coded mainly from the event narrative, and is coded based on the content at the time of the event (not after thoughts or subsequent events).

There are four categories for event content: conflict, intimacy, separation, and not applicable.

Conflict should be coded in every narrative for presence or absence.

After the coder has decided whether or not conflict is present in the narrative, the coder can look further for evidence of intimacy or separation.
Note that if the narrative does not fit into the categories of conflict, intimacy, or separation, not applicable (n/a) is used. However, the n/a category should be used sparingly.

31 Conflict:
Conflict involves fights, arguments, disagreements, disappointment with someone, or events in which characters have conflicting goals or needs. Conflict may also involve differences in opinions or perceptions on the same topic that cause discomfort to the characters. Thus the category does not require fierce anger or aggression.

Conflict events are those in which the person is clearly made uncomfortable by the event reported. Note that the conflict can be resolved on a positive note, but it can only be coded as conflict if the main point of the event is conflict.

The conflict may involve people other than the reporter, e.g. the reporter may be a bystander to a fight or conflict. (Note that the reporter cannot be a bystander for the intimacy or separation categories; these events must involve the reporter.) Also note that the conflict involves a relationship. While the category is *not* intended to capture individual internal conflict, a *relationship* can cause internal

conflict. In order to be coded as conflict, the event must involve interpersonal conflict.

Examples of conflict:

> 1) I was kinda the leader of my group of friends at school, which there was about 30. One of them, Meg had problems. She loved to fight and whine and complain. It was usually my job to sedate her. Lucky me. One day I just couldn't take it, I wanted her to see how destructive she was being. I talked to her and asked her to stop hurting others. It escalated into a big fight and ended when she turned on the tear ducts. She sulked and was comforted by others. I stalked off, confused and mad. Found the confining bathroom and let my own tear ducts fall.
> We [boyfriend] were talking about friends and I told him about how I had to take care of everyone. I guess when I told it, it was a sympathy getter, but it really bogged me how I didn't have anyone to lean on. And now I do.

(This is coded as conflict because of the clear discomfort and disagreement between the reporter and Meg. This is not coded as separation because there is no discussion of emotional separation. "Stalking off" is a physical separation, but the point of the narrative is the conflict, not the physical separation of going to the bathroom. This is not struggling with an intimate relationship. She is struggling with a conflicting relationship.

> 2) We had just moved to Salinas and my father away in Korea (army) had just been restationed after Vietnam. My father was due to return home soon, after years of being gone. When he returned he wasn't very close to any of us. My parent's argued a lot. And so my mom tells me, I asked my mom "why doesn't dad love me anymore". Shortly after my parents were divorced.
> It mostly related to my sisters because after my parents were divorced my sisters messed up their lives badly (i.e., drugs, friends, stealing, running away). So this affected me and my mom badly.

(This is coded as conflict due to the discomfort caused by the relationship with the reporter's father. Arguing is a clue to conflict. This is not coded as separation, because there is no discussion about the reporter's father leaving or any emotional separation away from the father. Rather the discussion of the father is relegated to arguing and disappointment. This is also not coded as intimacy because there is no discussion of a struggling with beginnings or endings of relationships, or important, personal communication.)

32 Intimacy:

Intimacy involves experiences of warm, close, communicative interactions with others (McAdams, 1988). However, this category includes positive and negative events. Someone can be struggling with intimacy in a relationship that has failed, or in a relationship in which one is working to achieve intimacy. Intimacy relates to the reporter's own relationships. Intimacy is not relevant to relationships in which the reporter is not a focal participant. Note that intimacy can be with friends, family members, or romantic partners.

This category subsumes beginnings *and* endings of relationships, as well as intimacy within relationships.

Again, if there is conflict within the event but it leads to intimacy, it should be coded as intimacy, with

conflict coded as present. If the relationship ends with conflict but the bulk of the event is about the relationship and time spent in it, it should be coded as intimacy. If there is only conflict in discussion of a relationship ending, it should not be coded as intimacy, but coded as conflict present.

Examples of Intimacy:

1) The first year my brother was at college, I went to visit him a few times in the dorms. Despite out nearness in age, we were not very close—although on good terms. We went to dinner and then watched a movie in his room. After the movie we started talking and the subject of our parents came up. My parents are wonderful caring people, but at that time we were not on good terms and I did not feel any closer to them than I did to my brother. I remember my usually quiet and good-natured brother getting so angry at me and telling me how unfair I was to them. I told him that he did not understand, that my actions towards my parents had nothing to do with them. At that point I broke down sobbing and told him everything he stared at me in disbelief. That was the first time I ever really talked to my brother.
We were [best friend/roommate] walking around downtown, talking about our families—I told him that I felt I was just beginning to be able to talk to my family, that I also had trouble communicating, now I kept things inside, etc. I told this story to illustrate a landmark in my life—letting someone close to me inside and how happy it made me to finally know I could talk to my brother despite our differences. I think he (my friend) just looked at me and smiled. I smiled back—I think we both knew that my telling of the story meant I was ready to let him in.

(Intimacy achieved through personal self-disclosure. Conflict present.)

2) My boyfriend and I fell asleep together one night at my house. We were curled up facing each other I fell asleep looking at his face. I had a dream that night where I was falling. One of those dreams where you sort of jerk awake. Well I jerked and woke up and he did too. I looked into his eyes and I knew that we were having the same dream. We immediately hugged each other and we both knew what had just happened simply by looking in each others eyes. Then we just sort of fell asleep.
My best friend and I were talking one day and I told her about it without going into much detail, I couldn't really tell her how I felt about it. But just describing it to her was enough. She knew how special it was to me. I had never been that close to a boy before where we shared the same dreams. I have told a few people since, but only because of amazement. I don't really expect them to understand what it really meant to me.

(Experiencing intimacy. No conflict present.)

***33 Separation**:*

Separation involves events in which the reporter moves away from an emotionally significant other in the event, or events in which a significant other person moves away from the reporter. Separation can be physical or emotional, and can occur for positive or negative reasons. Typically separation is from emotionally important others and/or well established relationships. Note that separation can be from friends, family members, or romantic partners.
Separation events may also involve conflict; if so, code for separation and conflict.

Note than one can return after a separation (e.g., moving away from home to be independent, but later returning). That is, the separation does not have to be final. Separation also includes struggling with a

separation even if it has not yet been completed.

Separation should be differentiated from intimacy. One may feel close or intimate with others upon, or due to, a separation. However, if the main point of the narrative is about the separation, it should be coded as such.

Examples of Separation:

1) I used to have a great relationship with my parents, until I was 16 years old. At that time, I decided that I wanted to be social, have friends, and most importantly fun! this was very different from my brothers, so the only way my parents knew how to deal was to punish me in order to keep me at home all the time. They started grounding me for every little reason. For example, twice I was one minute late for my curfew and was grounded for 4 days. One day, at the beginning of a particularly long stretch of being grounded, my boyfriend called and half jokingly suggested that we run away. After a bit of convincing I left the yard tools that I had been working with outside and left. I remember being scared and sad and thrilled at the same time. We were gone for a week, during which time I hardly slept or ate. I remember being afraid of going home and wishing that I had never left, even though at the time I felt the situation was unbearable. When I finally came home it was because my boyfriend decided (even though he had convinced me) he was only "playing", and because we had bused up all my savings. Also, my parents found us and said they were going to call the police and report my car stolen.
I remember being in the car and talking about my parents. Now I get along with them wonderfully, which I think was what our discussion was about. Then suddenly I remember that for a while, our relationship had been down right horrible. I mentioned that I had once run away, and really wanted to talk about it, but my friend seemed uninterested, so I changed the subject period. I think the reason I really wanted to tell my friend was because I feel like the only part of my that people know now is the part that is successful and together, and I wanted her to know the experiences I had had to make me this way.

(Attempted physical separation and return. Note that although the reporter mentions that she now gets along with her parents, the point of the narrative is the attempted separation. Therefore, this is not coded as intimacy, but separation. Conflict present)

2) It was the first day of kindergarten. I had remembered driving by the school before and my mom telling me that that was where I'd be soon. The school seemed so vast and forbidding. On the first day, I clung to my mother like a virus. I would not let go of her. Eventually all the other mothers and fathers left and the children sat tentatively listening to a story. I still would not let go. Eventually she left and I had so much fun I didn't want to leave. The next day there was a picture of me in the paper by a reporter who was taking "first day" pictures for fillers. I think I was wearing plaid pants. I remember seeing the back of Alison Black's head as she listened to a story that day. She had short straight dark hair that curled under. I remember the intense discomfort and fear. Leaving my mom was like getting out of bed early in the morning.
The ways I specifically remember sharing it (never in this amount of detail) were in two different papers I wrote psych classes, one in high school and one in college. I tell this story because it represents who I was as a kid, contrasts who I am now, and that and other

stories describe the nature of my mother and my relationship.
(Physical separation. Note that although the reporter mentions having a great deal of fun, the point here is the separation. This is affirmed in his statement about remembering the intense discomfort and fear from his mother's departure. Conflict present.)

***39 Not applicable**:*
This category is used sparingly. If the coder cannot assign an event content of conflict, intimacy, or separation, the narrative is coded as not applicable.

Decision Tree for Relationship Event Content
Base order for Event Content:
1) Conflict—presence or absence.
2) Separation or intimacy.
Coder asks him/herself:
Is there any conflict?
--No. Code as not present, then code for intimacy or separation. If no intimacy or separation, code as not applicable.
--Yes. Code as present, then code for intimacy or separation.
--Is there intimacy?
--Yes, code as intimacy (if there is no separation).
--No, is there any separation?—yes, code as separation (if there is no intimacy).
Note that the coder must choose between intimacy and separation. If both are present, choose the category that best fits the narrative.

4. ACHIEVEMENT EVENT

Examples: winning a competition, learning to ride a bicycle or drive a car, passing, failing, or struggling with an important exam; getting into college, reclaiming one's ethnic heritage by climbing the Great Wall of China; laborious but not life-threatening childbirth; embracing a new religion or deciding to live a life of spirituality, mastering the urge to eat (control over body); struggling to be popular; finally getting one's braces off; realizing one wants to have children; pledging a sorority; establishing a new life when the family immigrated

Events that emphasize one's own or group/family effortful attempts at mastery or accomplishment with regard to physical, material, social, or spiritual goals, regardless of the outcome. Event must involve effortful striving to achieve a goal, skill, or direction in life (vocational or spiritual).

Commitment to a new way of life counts as an achievement event.

Sample narratives:

> [Baseball triumph] Baseball field. If we win this game, we go to state championships. Team relies on me. I pitch real good and get taken for pinch hitter in last inning with coach not realizing I would not be able to pitch final inning. Pitcher after me give up game losing grand slam and everybody's hating it. Everybody had lots of praise for me and I felt really happy about my performance but really sorry for our coach. It was both one of the highest and one of the most humble moments of my life.

> [Committing myself to Christ]: I was at my mom's work family conference in Northern California. It was during the time of the highschool/college group meeting and we were given some time for reflection. It was during this conference that I started to feel a conviction that I needed to change things in my life and while I was sitting on some grass looking out onto the ocean I recommitted my life to Christ and God.
>
> ["After 14 years dance training I decided to quit"] I was a professional dancer and I hated it. I went to my instructor's condo with my boyfriend because my family would not support me in my decision. I told my instructor (who was battling cancer) that I was extremely unhappy and I could not go on in this business. I was crying consumed with feelings of guilt and relief. She was surprisingly understanding and I felt like a free person for the first time without the trappings of the complex dynamics of a dance studio (e.g. eating, dressing, acting…)
>
> [Getting into college]: I had just gotten my mail, jumped in my car drove to my boyfriend's house. I was already late to meet him and his parents who had just flown into town. I ran in the door in tears screaming "I got accepted, I got accepted." Everyone was really happy for me. I felt so proud and could tell my boyfriend was really happy for me.

Compare above narrative with this one, which counts as a relationship, not achievement event, because the focus is on the mom, not the admission to college.

> [My selfish mom]: I was at work talking on the phone to my mom telling her I wanted to go to UC Santa Cruz. she revoked her offer of paying for school because she didn't want me to go to UCSC. So I told her to have a nice life and hung up on her. I was terribly shaken up. I called my boyfriend to tell him about my mom and how she wasn't going to help with school anymore. I remember how mad and upset I was about the whole thing. My boyfriend's reaction was expected. He was not surprised at the continuously selfish act of my mother.
>
> [Mastery of body]: I was on a scale in my dad's girlfriend's bathroom and the red numbers came up 98 lbs. I was 5'5 and I had decided to take control of my life through not eating. When I saw that I was almost triple digits, I decided I would never let myself weigh over 100 lbs. I would stop eating and never grow up, get fat, develop. All of my stubbornness was resolved to a goal for the next few years I played sports I ate a powerbar every few days I wouldn't pass out and I said I was never hungry. I was so good—nobody ever had any idea. The red numbers on the scale decided how I was going to live my life for the next two years—in fear of being fat. I never wanted to grow up I thought if I was skinny I could be a child forever.
>
> [Deciding to become a performer]: I was performing in a production of "Fiddler on the Roof" at Woodminister Ampitheater, a semi-professional theater in Oakland. We were performing one night. It's an outdoor theater and it was cold as the fog had come in already. We were doing the song "Anaterka" about leaving our home in the time of war. I was really emotional. I started sobbing because I was so thoroughly upset with the situation, the loss, the pain. Once I stepped offstage I realized there were other actors looking at me. One gave me a hug and asked if I was okay. He was concerned. I

> realized then that theater is what I wanted to do because it lets me connect with people in a powerful way. I loved the thrill of performance and I emotion I draw out of others. [Deciding to become a writer]: My first relationship was one with a girl named Trinity. Through the course of our times, she sparked inside of me a writing style I never hope to lose. She had folders and folders of writings, of short stories, poems, haikus, screenplays. I had never seen so many writings in one place before, and I was quite enthralled. Naturally, it rubbed off onto me, this inspiration, and ever since then I have aspired to be a writer equal to her.
>
> Getting a sense of direction, literally!] I was in the back seat of the family car with my mom driving. We were on our way home from kindergarten. I was laying down and looking out the window at the clouds and the trees. I suddenly felt understanding of a greater world than my own. I knew direction, and remembered the road to school and which way home was. I felt greater understanding.

This one is a tough call. We decided to code as achievement event because the focus is on adjusting to going off to college. Seems like a peak experience [recreation], but the moment is strived for. Not a relationship memory because leaving dad is not prominently featured, nor is a relationship with a particular friend]:

> I remember quite vividly my first hours here at UCSC. My stepdad dropped me off at the East Field house with all my backpacking and college supplies. We hugged, said goodbye, and he drove off. I was totally alone. I knew no one. I was about to start college, and the sun was high in the sky on a beautiful Santa Cruz day. Eventually some other students waiting for Wilderness Orientation to begin, like myself, began arriving or coming back from downtown. I met my first college friends and we walked around campus, went downtown for some food, then came back up to campus and slept under the stars on a pleasantly chilly Santa Cruz night. It was a wonderful time. I remember feeling alive, ecstatic, hopeful, glad to be alive. I felt in tune with the universe like I was where I was supposed to be. I had no worries.

5. Guilt/Shame; Doing right vs. wrong

Examples: Guilt about getting pregnant, about lying, about hurting someone. Deciding not to steal something, or stealing something and feeling remorse. Making a moral or ethical decision to do the right thing in the present, or on future occasions.

Events in which the issue of one's doing right or wrong is emphasized more so than any of the prior concerns; there is an explicit contrast between what one feels is right vs. wrong. Narrative may explicitly uses the term “guilt,“ "shame," or "ashamed,” or in some way clearly convey remorse for one's own actions. Alternately, the narrative may emphasize having chosen to do the right thing, when one could have done the wrong thing. The focus in the narrative is on one's own responsibility for having done right or wrong. Sometimes the reporter resolves to be a better person as a result. The offense may not seem severe to the coder, but the reporter's perspective should be the basis on which the narrative is coded. Note: Embarrassment is usually too mild an emotion to count in this category (see unclassified events). Childhood pranks in which guilt or shame is not emphasized also do not count in this category, because the issue of morality is not central (such events might count as recreation, or relationship).

Sample narratives:

> [The abortion]: One year age over Thanksgiving break I got pregnant by a guy who I had been seeing for a year and a half. Upon finding out I was not only scared but I was shocked because that was the only time in my life I had ever had unprotected sex. I had always been the responsible, caring friend that took someone else to get tested and gave them a mild lecture on protecting themselves. I was devastated and ashamed and basically became an emotional mess for about six weeks (I had an abortion that x-mas break). My boyfriend freaked out and basically ditched me, and I was afraid of telling my family because I didn't want them to worry about me. Also, I felt like this was something I had done on my own and I needed to take responsibility for my actions instead of leaning on my parents. My close friends were great. They took care of me and supported me 100%. I still am trying to figure out why this happened to me and how exactly it changed me. I do know that this experience has given me strength and made me more aware of my actions.

[The above narrative might seem to be about her relationship--with boyfriend, parents, close friends--or about a life-threatening event--death of the fetus. However, the narrative emphasizes her shame and personal responsibility. One clue that the narrative is not about relationships is that so many relationships are mentioned -- the event is really about her own struggles with herself, with learning to take responsibility for her actions.]

> [Lying on a resume]: I once lied about my qualifications on a resume. I said that I had a B driver license when I didn't. I didn't think it would matter. The place of employment even asked me if my license was current and I said it was. The interesting memory bit is the part about when they wanted me to use the license and I had to admit to not actually having one. I was really scared and figured they would fire me immediately (which they should have done perhaps). I was so embarrassed as I had never lied about anything before. It was the most humiliating experience of my life. I didn't lose my job facing my co-worker was really tough. By not having this license I really screwed up the things at work. Telling the truth was terrifying. I tell a lot of folks about this event and this memory because I learned a lot from it. I don't lie anymore ever. I am really honest about why I don't lie too. I feel pretty worthless when I tell the story. It was really lame thing to do.

> [Flipping the bird]: When I was 7 I had one older brother and my neighbors had two boys as well. Being the youngest (and female) I was always trying to win their approval. One day we were playing handball against the house and the UPS truck pulled up. Since it didn't have any windows in back we figured the driver couldn't see behind him (we didn't know about rear view mirrors then). Anyways, they all dared me to flip him the bird. I remember getting that adrenaline rush, the one you get when you're just about to do something your not supposed to. I flipped him off and ran away giggling. All of a sudden the drivers side door opened and the UPS guy got out. The hairs on my back bristled as he walked over toward me. I was so scared. He never told my mom but for months after, every time he pulled in our driveway I hid…After this happened I told my two best friends at school. I told them because I was really ashamed of what I had done and I wanted to know if they thought I would be in any permanent trouble. (When you're a kid you worry about doing jail time for stuff like this).

> [Hitting sister with a rock]: At my old house, we had a big yard and a lot of it was fields. My dad kept having us mow the field and clean it up so we could have a bigger yard-expanding the yard. In order to mow the field, we had to go through and pick out rocks and he had us just throw them in a sticker patch on the property to get them out of the way since we weren't doing anything with the sticker bushes. Well, one day I was going around throwing the rocks into the pile and my little sister was outside too bugging me. I told her to go away so I would finish doing the rocks and she wouldn't go away. Of course me with my big mouth I told her to go away or I wouldn't be responsible, if the rocks hit her. She didn't listen and without even trying, I ended up throwing a rock that landed right on top of her head and she had to get stitches. It made me feel really guilty and people didn't believe that I really didn't mean to hit her. My friends usually respond with disbelief and laughter
>
> *[May not seem like a capital offense, but the reporter says she felt guilty]*.

> [Unwarranted aggression]: All of us were out in front of the school. I was sitting down when my former friend said something to me, I got up. We started pushing each other. I pushed my former friend and his new friend while my friend watched. I don't even know what I was thinking. It was like I was watching myself act stupid and I couldn't do anything. I'm not a violent person. The whole thing made me sick. This really was a self-defining moment. It changed my life. I never want anything like that to happen again. A whole bunch of other incidents led up to this occurrence. I see my prior faults and I've tried to become a better person.

[Doesn't explicitly use the term 'guilt' or 'shame,' but resolves to be a better person; feels remorse.]

> [Returning money that was not one's own]: For as long as I can remember my father has participated in the local Farmer's Market, which I too attend frequently. On one such occasion I found a $20 bill on the ground between our stand and that of our neighbors (closer to ours). I was thrilled. My mom said I could keep it. My dad told me it was probably our neighbor's but had been blown off the table. He left the decision up to me as to what I did with the money. After hours of contemplation (about 1 1/2 to 2) of what I could do with that much money I decided to give it to the farmer. I felt better that way. He was quite impressed and gave me a bag full of peaches (my personal favorite). To this day I have a fairly personal friendship with that farmer.

Tough call: The following narrative refers to his family feeling shamed," but the event centers on his failure at achievement.

> I was in the university when I received my first "F." my strongest subject is math. I placed into a higher division class and was excited. But the class hit me extremely hard and I failed it. Nobody knows about it except for the proper officials, I can not show it to anyone in my family because it would shame them.

6. Autonomy Event

Examples: driving to school alone for the first time, doing something without help, making a choice by him/herself, leaving for boarding school.

Autonomy events are characteristic of the adolescent's independence. This can include doing

something on his/her own for the first time. The event itself must focus on the adolescent's independent actions, especially actions that had been previously done with the help of someone else.

> [*walking home alone for first time*] When I first started walking home from school by myself I was a little scared. But, eventually, I saw that other kids were doing it and I made friends and now we walk home everyday. I feel like that is an important event because it is where I made friends, and we can just hang out. I didn't want to do it—I wanted my mom to drive me, but now I know that I can do it on my own and it is fun to do things without parents around.

The event centers on being independent from parents, even though he is more connected with friends.

99. EVENT UNCLASSIFIABLE. Narrative does not fit well into any of the event categories.

Recreation? Relationship? 108.3

> I was at softball practice after school on the baseball. One of the girls hit a ball over a chain wire fence that faced a major street near the school. I ran to get the ball and started climbing over the fence. I fell but the foot slipped and my shirt got caught on the top of the fence. I fell but the front of my shirt was hooked. I ended up hanging with my bare chest (I was only 11 and did not yet require a bra) facing the street. I couldn't get down by myself and eventually a couple of my teammates had to come and unhook me. I was so embarrassed I wanted to die.

Recreation? Relationship? Achievement? 113.3

> [Befriending animals]. Age 5: I was camping with my family and was feeding a deer by hand and my other had had food in it. A chipmonk came and started eating out of the other hand. My mom took a picture. I was very content and pleased with myself for being calm, patient, and making friends. ..The only people I've told is probably those who saw the picture, or have commented that I've got a knack with animals.

Recreation? Life-threatening event? 114.3

> "Fell asleep at the wheel": When I was 16, my best friend and I drove to Mexico without telling our parents. I drove all the way home while my friend was asleep. I fell asleep at the wheel. The next thing I remember was pulling my friend out of the car and throwing our sleeping bags onto the lawn of a truck stop where we both fell asleep. I don't remember driving to the truck stop.

Guilt/Shame? Relationship? 133.2

> ["I farted in my fourth grade class—my most embarrassing moment", involved classmates.]
>
> I was in my fourth grade class, we were taking a test so the room was silent. I farted and was embarrassment because I was sitting next to a boy I had a crush on Ryan Perry. Everyone was looking around wondering who did it cause it was so loud. I wanted to shrink into my seat. So people laughed.

Early memories tend to be difficult to code into events: too cryptic. Not coded as an LTE, because narrative does not indicate possibility of severe injury . 105.1

> When I was 4, we were making sugar cookies when the neighbor came to the door. She told my mother the house was on fire and we had to leave. I had bought two pairs

of socks the day before with my grandmother, and I asked my mom to let me take them with me. We went outside and watched the neighbor's house burn. ….We [boyfriend and acquaintance] were talking about remembering childhood. They both said they could not remember far back, maybe only to 10 years old. I was telling them all the things I remembered from being in pre-school. They were surprised I remembered so much, and mostly random things.

Early memory: exploration? Relationship? 167.1

[age 5: "typing in great room"]: I spent a lot of time at my grandparents' when I was very small. My grandmother had a desk set up in their seemingly vast living room. On it was a vintage typewriter. I coveted my time at that typewriter. I could not read or write, but everything I typed, anything on that paper was intensely significant to me. I remember looking at the page I had "written" feeling such pride in my accomplishment, presiding at the "helm" over this immense room, typing up important documents. I felt self-sufficient and creative. My grandmother used these times to dissertate philosophically about life. She played a pivotal role in facilitating this proudly creative time. …When I was 24, I told my therapist this memory during a session as I was explaining the dynamics of my father's family. And that while my relationship with my father was predominately negative, this frequent time with my Nana shone nostalgically amidst the gloom. This was last year. my therapist expressed his relief/delight that I had had such a potent and positive experience. I felt proud for my creativity and grateful to my grandmother it made me miss her deeply.

Relationship? Lack of all relationships is emphasized. 223.3

I remember coming to Santa Cruz with my car filled with everything I owned packed and unpacked everything from my car to my apartment. I was the only one there. I had never moved in my life. I live in the same house all of my life. It was scary to be in an unfamiliar place that I had to call my home. It was so empty even with all of my things. I cried myself to sleep driven by fear and anxiety. It was so scary to be in a new place.

Early memory: Recreation? Relationship? 306.3

On my 4th birthday party I received as a present a small, stuffed Papa smurf doll. I was so happy with my gift that I ran outside to play with my neighbors. Usually, my birthday party included only family members and family friends. My neighborhood friends recognized my relatives, especially my uncle, who always had a serious and somewhat scary expression on his face. At that time, my uncle worked in a department regarding national security. He often carried a gun, as it was part of his duties. The particular event occurred as I was playing with the other children. Out of pride, I began to brag about my uncle and how he carries a gun. I got everyone's attention. Everyone begged me to see my uncle's gun. I knew that my uncle would not let me handle his gun, so I led my friends to the front door of our apartment, which was surrounded by glass rectangles. Through which the inside of the apartment could be seen. I remember crowding around one the rectangles and peering through at my uncle and the bulge of the gun on his side. I felt proud having an uncle in such a dangerous employment.

APPENDIX C

Manual for Coding Meaning Making in Self-Defining Memories

Adapted from Kate C. McLean & Avril Thorne's 2001 Manual
by Amanda LeTard
University of Connecticut
July 2013

Difference in the manuals:

- Changed to reflect transcripts, rather than written narratives
- Changed to reflect the reporter = adolescent rather than parent.
- Developmental and Co-Construction considerations
- Examples pulled from McLean & Pratt (2006)

Ground Rules For Coding Meaning

1) Meaning making (lesson learning and gaining insight) must be coded from the adolescent's perspective. For example, if the adolescent's friend learns a lesson from the event in the narrative, that is not coded as lesson learning because the *reporter* did not learn the lesson. Further if the **parent** reports learning something ABOUT the adolescent, that is also not coded.
    a. If the adolescent is *pressured* (e.g. through rhetorical questions) to acknowledge meaning, it can only receive a score of some meaning
2) The coder should create a caption for the coded event i.e. the "Main topic"
    a. This is a brief description of what the event was
3) The two kinds of meaning making are **mutually exclusive**. That is, the coder must choose whether the meaning reported is lesson learning or gaining insight. (Gaining insight is considered higher order to lesson learning; if s narrative includes a lesson as well as an insight, insight is coded, rather than lesson)

Meaning:

Meaning refers to what the reporter **gleans, learns, or understands** from the event.

There are four categories for meaning: lesson learning, some meaning, gaining insight, and not applicable. For a narrative coded as not applicable, no meaning is drawn from the event.

Co-Construction & Meaning Making

1. The adolescent must agree (nodding or verbal or by contributing to the conversation), that this topic is selected
2. Even if the **parent** does not agree, if the adolescent articulates lesson/meaning, it counts.
3. The adolescent must contribute something or acknowledge/agree on the insight/lesson; however, the parent may articulate it
4. Multiple topics: Some dyads might cycle through a number of topics. As mentioned in the instructions, insight gaining is a higher level than lesson learning, so code the highest level of meaning.

Developmental Considerations

1. A lot of vagueness with the children articulating what they learned/gained –Some is ok, but there has to be *something* there that indicates a reflecting back on the experience and taking something away from it. Be sure to highlight the line where you find meaning in the transcript.

1. *Lesson Learning:*

Lesson learning involves learning a specific lesson from the event. For example, a son learns not to throw eggs at mom. [If the son drew a more general meaning from the event, e.g., that he had an anger management problem, that counts as insight rather than lesson learned].

Lessons learned usually pertain to behavior, interactional rules, or norms, e.g., "Always wear a seat belt," "Don't talk back to parents," "Don't do drugs," "Don't run wild."

The lesson can be positive or negative. The term "lesson" may not be explicitly used; instead, terms such as "mistake" may signal that something was learned from the event. The lesson should be clear

enough that the coder can verbalize what the lesson was.

The lesson may not sit well with the adolescent, or may not be fully elaborated. Also, the adolescent may not have resolved the meaning of the lesson.

Lesson learning is lower order to gaining insight. If the narratives includes a lesson learned as well as an insight gained, the meaning should be coded as insight.

Examples of Lesson Learned:

1) "For some reason, I was quite annoyed with my older brother, Travis, and one day I gave him this note saying I didn't think he took me seriously. I guess he was pretty upset by this and that night he suggested we take a ride. He parked his truck in the parking lot of my hometown's community college and started talking, first about what he thought of me and how he did take me seriously. Then he told me how messed up his life had been the year before and how drugs had nearly ended his life. This really upset me, and I was crying so hard I could barely speak. I couldn't believe how stupid he had been, and how close I had come to losing him. I'm not sure what effect this has had on me, but I do have my brother's experience as an example to me of what not to do."

The clue to lesson learned here is that she has her brother's experience as an example of what not to do. She has learned something from his mistake, but does not elaborate to other parts of her life. This appears to be a lesson about behavior regarding drugs, and nothing else.

2) "On the night of my friend Katie's 16th birthday/costume party, she had the girls spend the night at her house. At around midnight, the plan was to go to this park and hang around. However, Katie got really mad at her boyfriend and decided to just go to bed instead. But the five of us girls were still wide awake, so we drove over to Denny's instead. After spending an hour or so there, we drove past Taco Bell, and we saw a group of guys piled in a car. We pulled over to talk to them and while we were "flirting" with one guy, another remarked to his friend "Yeah! We're gonna get laid tonight!" Us girls were pretty alarmed by that, so we drove away as quick as possible. We were all wide awake and giggly after that, so we went back to Katie's and woke her up to tell her what happened. It was pretty funny. Now when my friends and I talk about this, we laugh how it was the most daring thing we had done so far, and how stupid we were I think we learned a good lesson, and we have lots of fun still remembering it and telling our friends about it. Most of the people we tell agree that we're pretty dumb."
(The lesson here concerns not running wild; it relates to a specific behavior.)

2. *Gaining Insight:*

Gaining insight is coded when the reporter gleans insight from the event **that applies to greater areas of the reporter's life**, not just to a specific behavior. There is often some kind of transformation--emotional or psychological or relational--for the reporter. Narratives coded for gaining insight must really convince the coder that there is new insight for the adolescent. Insight must be explicit.

Insight must reach to the future or to areas outside of the self. The coder feels that the insight has made a great impact on the reporter.

Examples of Gaining Insight:

1) I love my family. I believe it very important to stay deeply connected with your roots-were you came from. It can always be a sanction for which you can safely visit and stay, although it is not always super easy. My stepmother and dad have taught me so much in these past 4 years it is frightening. This again is a string of memories I have in my head summed up onto this paper. My parents have helped shape myself into a better understanding of the universe and world around me. I remember this one night xmas eve this year (98/99) we (my stepmother and myself) had gotten into an argument because I forgot to turn the lights off in my room and she was complaining about electric costs. I had just gotten back from college,(free living in my head-carefree) and was not too aware. The fight broke out verbally super loud when she told me to fuck off and go back to school. I called her a dirty smelly bitch, and it just went on and on. We finally stopped as my dad stepped in and laid down the law. We talked that night hours and hours on end. She had always deemed herself perfect and that night she was disproved. To make a very long story short we came to a way better understanding of how each of us perceives the world , and how we function and live about our lives. It was awesome. I told my friend on the way back to school (college) in his truck. He was so utterly surprised that she had even done this he almost felt sorry for me. It told him it was cool because I learned never to tamper with other people. And other people shouldn't tamper with you (i.e., don't try to change other people's lives). All of these events have led me to discover about myself and live to my parents understanding. I have become more aware and conscious. They have taught me how to work the universe.
(The reporter's insight in this narrative comes from the discussion of gaining a better understanding of how the characters perceive the world, and the events leading to a self-discovery about how he and his parents understand the world. This meaning reaches beyond the immediate event to other's perspectives and a self-discovery.)

2) I was painting a huge picture of Santa Claus with my dad that he had cut out and we were going to put on the roof. I just remember how wonderful it felt to be spending time with just him and I was so happy and content. It was one of my happiest memories from childhood. The real shaping of it didn't happen until about two years ago. My dad was talking to me and remembering painting with me and he laughed to remember how stoned he was that day. I was so incredibly shocked. I had known he used to do all sorts of drugs, but I never thought he did them after I was born. It really made me go through and re-look at my memories and see how there's so many things behind a situation that you never see. **Things are not always as they seem.** I told my mom about it and she was just surprised as hell to know that I didn't know about his drug use.
(The reporter's insight comes from her realization that many of her memories may not always be what they seem-applying the realization to greater areas of her life.)

3. Some meaning

This code may suit many of the identity cases. Here, the adolescent is learning something about himself, but it might not have a broader or deeper meaning. It is, instead, a level of self-discovery.

- **Situational**
- **May apply only to the individual**
- **Not future oriented.**

A score of 2 given to narratives with some meaning. These narratives contained meanings that were slightly more sophisticated than lessons but were not as explicit as insights.
EXAMPLE "The event gave me motivation to learn more about medicine as a career and learn much

more about myself and my desires in life. I also had to learn to see my own value outside of academics."
EXAMPLE: "My parents divorced. I realized that they love me."
If participant said WILL ALWAYS *love me, it would apply to different situations and is future oriented and thus coded as an insight.*

4. *Meaning Not Applicable:*

Apply "meaning not applicable" to narratives in which the coder feels the adolescent has neither gained insight nor learned a lesson; that is, the reporter does not make an effort to explain the meaning of the event.

On the coding sheet, select why N/A is appropriate choice.

No meaningful event agreed upon: parent and child discuss potential meaningful events; however, no one event seems to satisfy the dyad.

No meaningful events discussed: Dyad does not complete or properly understand the task. Discusses other topics, but not a meaningful event.

Meaningful event discussed, but no lessons or insights articulated: Dyad discusses a targeted event, however no lessons or insights are mentioned or satisfy the criteria.

Other: If no other category seems appropriate, describe why N/A was selected.

Examples in which meaning is not made of the event:
1) It was a hot summer night the summer after my freshman year of high school. I had a major crush on this really popular junior but I never thought I stood a chance. His friends called me up and invited me and my friends to go out with them to a party. We agreed! We all drove in 2-3 cars up to a remote spot in the mountains. We arrived at about 5 PM to set up the BBQ. I was amazed by this place. It was an old fire lookout station on top of a mountain. There was a 360 view and we could even see the ocean. We all sat around a fire and talked waiting for the sun to set. We ate our food but I was really thirsty. The guy (Joe) who I had a crush on offered to walk me over to get a drink. While we were separated from everyone he leaned over and kissed me. It was such a shock! Him and I totally bonded that night underneath the stars with a campfire and friends for company. Eventually we got together. I told one of my friends who wasn't with us that night. I was so excited and I had to get it out of my system. I told her the day after. She was jealous but happy for me. I was completely in another world.
(There is no reflection beyond this event in terms of how it relates to the reporter's actions, feelings, or development.)

2) My father was dumping my brother, sister and I off at elementary school. As we were about to exit the car and head up the giant steps into school, I remember my father explaining to us that he might not see us for a while. He went on to say that my mother was upset with him and that he wouldn't be at home for a couple days. He was crying. I don't remember all the words clearly but I remember that he seemed to be searching for what to say and perhaps pacing himself so that he could control his emotions. That was the first time I've seen my father cry. I don't recall what my brother and sister were doing, I don't remember looking at them. I primarily recall confusion at seeing my dad so visibly shaken and upset. My parents divorced when I was six. It was and still is not pretty.
(This narrative focuses on event description that is action-oriented, and the reporter does not reflect on the influence the event has had on her.)

Scoring

A score of 0 given to narratives with no meaning reported.

A score of 1 given to narratives with a lesson reported. (lessons were defined as meanings that were often behavioral and did not extend the meaning beyond the original recalled event.

EXAMPLE: "I also worked temporarily at a law firm and realized that I did not want to practice law, but wanted to deal with some aspect of the law." *This participant indicated thought and behavioral action taken, but without complex reasoning.*

When I told my boyfriend that I loved him over 2 years ago. We were in a park after having a terrific day (previous day) at Niagara Falls. I asked him if yesterday could have been better. He said no, and I said yes, if I had only told him what I have been thinking and feeling (that I loved him). I was scared to have those words leave my mouth; never been in love before. Wasn't sure what it felt like, what to expect when it was said. Knew that those three words could never be taken back. My boyfriend said he loved me too. We have been together for over 2 1/2 years with plans for marriage *This narrative shows no explicit efforts toward making meaning of the relationship or herself within the relationship.*

A score of 2 given to narratives with some meaning. These narratives contained meanings that were slightly more sophisticated than lessons but were not as explicit as insights.

EXAMPLE "The event gave me motivation to learn more about medicine as a career and learn much more about myself and my desires in life. I also had to learn to see my own value outside of academics."

A score of 3 given to narratives with insights, which were defined as meanings that extend beyond the specific event to explicit transformations in one's understanding of oneself, the world, or relationships.

EXAMPLE" "That event led me to choose a career in teaching. I had been planning on law school, but changed my mind. I have started my first job and I love it! Every day is different. I know that I can make a difference by helping each student to see the value of themselves. That boy gave me confidence and I am returning that confidence to others."

At the end of this summer, I left Canada for Scotland in order to pursue teaching education. This is something that I had planned on for a long time and was very sure about. I had been away from home before, but never as far away as another country. Although I only half completed the length of my time here, I have learned a great deal about myself that I didn't really see before. I have certainly proved that I am very independent. I had previously doubted this about myself. It felt rather fulfilling to feel such independence. I had the occasional doubt prior to coming here that it would be difficult, but little doubt exists in my mind now. *In this autonomy story, Madeline has reflected on an experience that changed her in an explicit way. She has a new feeling of independence and appears to have found a path in life after exploring herself and her options, a sign of a well-developed life story and movement toward an achieved identity.*

EVENT AND MEANING CODING SHEET

List all topics that were SUGGESTED, Who suggested them, (and why they were dismissed, if clear) *To do this, highlight topics as you read/hear about them in the video.*

*Topic 1*_____*line____ M A*
*Topic 2*_____*line____ M A*
*Topic 3*_____*line____ M A*
*Topic 4*_____*line____ M A*
*Topic 5*_____*line____ M A*
*Topic 6*_____*line____ M A*

How does mom support the child in coming up with event (Circle)?

Offers menu **Offers Strategy**

Offers ONE solution **Other (describe briefly)**

Description of MAIN topic (the topic discussed most as meaningful)_____

Who suggested the topic: (circle) **MOM** **ADOLESCENT**
When? (include line number) _____

(circle) **POSITIVE** or **NEGATIVE** event (for the average person, is this a generally positive or negative event? NOT how the person necessarily interpreted it.)
Did the adolescent speak of this topic with **POSITIVE or NEGATIVE** valence or **Both**

Circle the best option code below.

Event type	**Primary concern**	**Sub-category and code**
Life-Threatening Event (LTE)	basic safety; mortality	**11**. Death or serious illness or injury of someone else **12**. Serious accident or illness of self **13**. Physical assault to oneself **19**. LTE not classifiable
Recreation / Exploration	exploration, fun	**2**
Relationship	interpersonal relationship	**31** Conflict **32** Intimacy **33** Separation **39** N/A
Achievement / Mastery	effortful mastery; goal attainment	**4**
Guilt/shame	doing right vs. wrong	**5**
twentAutonomy	Independence, doing something alone	**6**
Event not classifiable		**99**

If any N/A or Not Classifiable codes assigned, please explain briefly:

Level Of Meaning _____
0 = No Meaning
1 = Lesson(s) learned
2 = Some Meaning
3 = Well-formed Insight

Write how many instances of meaning making below and list the line numbers.

Insight(s): _____ lines _____

Some Meaning(s): _____ lines _____

Lesson(s) Learned: _____ lines _____

No meaning was made _____ (Circle reason below)

No meaningful event agreed upon No meaningful events discussed

Meaningful event discussed, but no lessons or insights articulated Other (describe)

APPENDIX D

Coding Manual for Mother-Child Meaningful Event Conversations

This is a mutually exclusive and exhaustive hierarchical coding scheme in which each SPEAKING TURN is coded into 2 categories.

Speaking turns are labeled (e.g., Parent 1: xyz ; Child 1: xyz)

General Rules

Each ***turn*** is first coded for conversational function/structure
Each ***turn*** is then further coded for whether it refers to the event itself, an explanation of the event, or the emotional aspects of the event.
Emotional aspects of the event are further coded for what aspect of the emotional experience they focus on.

Each turn may have MORE THAN ONE function or structure.

Code only the **on-topic conversation turns.**
Off-topic turns are indicated and then indented.
Be sure to COUNT the turns that are both on and off topic for each member.

- Participants may be off topic at the beginning. Code getting on topic, but only if they are direct efforts to get on topic.

I. Narrative Structure / Function

- **Elaboration (ELAB)**– information that is new to the conversation, if it has been said by either participant before utterance is counted as a repetition. Rely on punctuation to separate elaborations.
  Elaborations are a metric of how detailed and richly textured the narrative is. Leading questions may also be coded as elaborations as they provide new information and are not genuinely setting up the other for an elaboration

- **Repetition (REP)**– information that has already been established in the conversation, regardless of who has provided the information. Cannot count a repetition that is following its' initial elaboration, also known as a false start. Repeated statements made back to back in one conversational turn are false starts.

- **Confirmation (CON)**– confirming other person's previous statement. Confirmations can be "mewing statements" (uh-huh, yeah) that indicate agreement or confirmation of what the teller is saying or statements of confirmation of support ("you're right.").
  Confirmation can be given by repeating the statement or with a yeah, yes etc. The confirmation may be part of a sentence, coding of negation and confirmations do not rely on punctuation
  Examples (utterance in bold would count as confirmation):
  Child: We went to the carnival
  Mother: **We went to the carnival!** What did we do there?

  Child: We went to the carnival
  Mother: **Yes**. What did we do there?

- **Negation (NEG)**– negating previous statement. Offering a contradictory opinion to the situation or disagreeing with the teller. The negation can be part of a sentence, coding of negation and confirmations do not rely on punctuation, as in the example below, the remaining part of the child's reply would count as an elaboration.

  Example (utterance in bold would count as negation)
  Mother: Do you remember when you were playing with Joe at the playground?
  Child: **No** it was just me and Sam.

(Confirmations and negations together can be collapsed into "evaluations;" see Fivush, 2006)

- **Contextual Statements**
  - **Move-along (MOVE)**: Move the conversation along: These statements make no demand on the teller, but just add to the conversation. That is, the teller is not required to respond. E.g. "That's an interesting question"
    Only code content type if it is clear.

  - **New interpretation (INTERP)**: These statements are not questions, but offer a different interpretation or perspective on the topic of discussion, which are not factual. Note that turns where the speaker ends a new interpretation with a yes/no question (e.g., "It affected your confidence, didn't it?") are coded as INTERP because there is new information, which trumps the questioning.

  - **Reiterations (REIT)**: Statements (not questions) that repeat what the speaker just said.

- **Question** – questioning. Decide what kind of question
  Memory Questions (MEMQ)
    a. Elaborations: asking to provide a *new piece of information*, including the "wh" questions (who, when, what, where). Includes "Tell me about it"
    b. Repetitions: An open-ended question that actually repeats what the teller just said (by exact content or gist), or the question asks the person to repeat what they just said, even if it only requires yes or no answer.

  Yes-No Questions (Y/N Q)
    c. Any question that is set up for a yes-no answer ("You love popcorn, don't you?"; "Was it hot there?"; "Were there lots of people or not so many?")

- **Getting on Topic (GoT)** – These are utterances in which the mother is trying to get the child to talk about the event, but the child has not yet provided any confirmations or new memory information. OR, when the child attempts to refocus him or herself.

  These are elements of recycling the prompt. Can also be found at the beginning of a transcript AS WELL AS when they have been off topic for a while and the prompt is mentioned again in an effort to have the child talk more.

  An effort to return to the topic must be demonstrated.
  When this is phrased as a question: code question type
  If mentions prompt or is unrelated to the <u>specific event already mentioned</u> code as non-event.

- **Placeholder (PH) -** This is used for utterances that do not fall into other categories, such as I don't know, huh?, what? you know, let's see, think real hard etc.
  - **For a place holder, you do not need to code Content*****

- **Incomplete Thought (INCOM)**: Sentences that are interrupted or do not finish, so that there is not enough information to code the content.
  Note, If a turn is interrupted and never finished (and is incoherent), code as incomplete. If the turn gets finished, code the whole response as one turn even though it was interrupted.
  - **For an incomplete thought, you do not need to code Content*****

II. Narrative Content

- **Event (EV):** The memory talk is about the event itself (e.g., "I rode my Jeep all around")
- **Emotion (EMO):** Use of emotion word or emotional behavior such as laughing, yelling, crying, trembling, hugging, kissing, etc. Also code references to fun, liking, favorite part or a good time as an emotion, or an attempt on the part of the mother to elicit the emotion from the child, Ex "How did you feel?"
- **Explanation (EXP)** is any utterance that explained the reasoning behind a course of action, or the cause and consequences of the event (e.g., "I didn't let you go to Ben's house because their dogs trigger your asthma"). Also included in this category was talk focused on strategies and/or consequences of specific actions, including coping strategies (e.g., "If you are having trouble breathing at school, tell your teacher").
- **Non-event (NON-EV)** These are statements that remain on task, but are not directly related to the event or the emotion, but continue with the discussion. They could be self-reflective "I am bad at this" or "Don't be silly, just say it"

Attribution/Cause/Resolution

Emotion talk is further coded into the following categories:

- **Attribution (ATT) –** Emotion talk that is attributed to either Parent, Other or Child, without explaining cause. The attribution is broken down in the following categories
  - **Parent/Child/Other** – Child supersedes other categories. In the following example the emotion is attributed to the child
    Mother: We were sad

- **Cause (CAU) –** statement about cause of emotion (Ex. "I was mad because daddy took my jeep"). This type of statement supersedes attribution. In the example given the child is attributing anger to themselves, but it would still be coded as cause because they are providing information as to why they felt the emotion. Look for key words such as: why, when, because, make. A statement such as "How does that make you feel with no preceding information is counted as attribution; however, a statement that does have preceding information that gives a clear causal relationship is cause. For example, "Remember when you ate candy yesterday. How did that make you feel?" Cause is broken down into the following categories

  - **Parent/Other/Object/Child**

  ***** Only need to make this distinction if the cause is given. For example, mom might say to child, "Why did you fuss?" although she is clearly discussing cause you can not determine if that cause if parent, object or other.
  Parent (PA) – If parent is cause of the emotion, supersedes other causes
  Other (OT) – If another person is the cause of the emotion
  Object (OBJ)- If an object or an event (such as a party or a dream) is the cause of the emotion

- **Resolution (RES) –** attempt to resolve emotional feelings (e.g., "But now you are not angry anymore are you?") or coping technique to deal with the emotion (e.g., "You could have cried but you didn't")

ON/OFF Topic

- **Off Topic (OFF) -** This is used to code sections where parent and child are no longer talking about event, in most cases they get distracted with something happening in the present or talking about another event**.**
  When the conversation veers off-topic (for any reason), **count the number of turns**, but do not code them. This includes beginning conversation about how to do the experiment, but not necessarily how they feel about the experiment (if it relates to the memory).

- **On Topic (ON)** – Someone proposes a topic and it is discussed. Start coding as on topic when child provides memory information (place holder does not count). If child has more than two utterances off topic convert coding back to getting on task until child offers memory information. Even if mother offers new information in between these utterances. In any case where the child has two consecutive off topic turns the coding goes back to getting on topic.

Totals from Parent-Child Co-Construction Coding

Function:

Elaboration:

Mom_____

Adolescent____

New Interpretation:

Mom_____

Adolescent____

Repetition:

Mom_____

Adolescent____

Reiterations:

Mom_____

Adolescent____

Confirmation:

Mom_____

Adolescent____

Memory Question:

Mom_____

Adolescent____

Negations:

Mom_____

Adolescent____

Yes/No Question:

Mom_____

Adolescent____

Move-Along:

Mom_____

Adolescent____

Getting on Topic:

Mom_____

Adolescent____

Placeholder:

Mom_____

Adolescent____

Incomplete thought

Mom_____

Adolescent____

Remember:

Mom_____

Adolescent____

Event/Emotion

Event:

Mom_____

Adolescent____

Explanation:

Mom_____

Adolescent____

Non-Event:

Mom_____

Adolescent____

Emotion:

Mom_____

Adolescent____

Attribution

Mom_____

Adolescent____

Cause

Mom_____

Adolescent____

Resolution:

Mom_____

Adolescent____

Off Topic (Turn count): Mom_____ Adol____

On Topic (Turn count)*:* Mom_____ Adol___

On Topic (Word Count)*:* Mom_____Adol _

Appendix E
Global Scaffolding Coding Sheet
Code on BOTH 3 point and 5 point scale.

How much does the parent NEED to direct the discussion in order to keep the adolescent on task? (This may be reflected in how frequently the teen strays from the topic at hand)

1		2		3
1	2	3	4	5
Multiple and repeated attempts are needed to return teen to task.	Teen needs much more redirection than most.	Teen may need some redirection.	Teen occasionally strays from task, but returns easily	Teen remains on topic and does not need any redirection.

The above descriptions might not be what *happens* but is what the adolescent needs. For example, the adolescent might *need* redirection, but not receive it from mom.

How **effectively** does parent attempt to return to discussion or try and keep them on track?
This scale reflects the parent changing their strategy to keep adolescent on track if necessary; it is not the sheer number of attempts.

1		2		3
1	2	3	4	5
Parent is ineffective. Parent does not engage teen through a successful strategy or sensitively respond to their needs.		Parent is moderately effective. Parent works to engage teen with some success. May change strategy if unsuccessful.		Parent is effective. Appropriate and effective efforts to engaged in memory discussion

How much does parent lead the conversation?

1		2		3
1	2	3	4	5
Teen leads conversation. Parent may ask a few questions, but generally lets the teen speak.	Teen mostly leads, but parent contributes. Parent asks some guiding questions and/or expands on what the teen has offered.	Parent and teen equally contribute and mutually guide conversation	Parent leads the conversation (e.g. decides topic, suggests what meaning exists, etc.) while child nods and does not suggest intrusiveness	Parent *intrusively* guides the conversation, disallowing the teen to contribute much

How warm and connected does mom appear throughout the conversation?

1		2		3
1	2	3	4	5
Cold and distant		Cordial and acquainted		Very warm and connected.

Appendix F

Descriptive Information for Secure Adolescents

	Secure Adolescent 1	Secure Adolescent 2
Gender	Female	Female
Mother Attachment	Secure	Secure
Content discussed	No Event discussed	Self –Focused Topic
Observed Topic Valence	No topic discussed	Dyad spoke positively about event
Coder-Rated Topic Valence	No topic discussed	Event was judged to be a typically negative experience
Meaning Made	No, no insight or lessons	Yes, Some meaning made
Elaboration (Utterance counts)	9	29
Explanation (Utterance counts)	0	1
Emotion (Utterance counts)	2	3
Event (Utterance counts)	10	19
Repetitions (Utterance counts)	1	1
Questions (Utterance counts)	0	21
Confirmations (Utterance counts)	3	1
Negations (Utterance counts)	0	1
On-Topic (Utterance counts)	14	54
Observed Adolescent Autonomy/Relatedness Tn Reasons/Points (0-4 scale)	7 = Total score of reasons (2), confidence (2), validating (1), engagement in interaction (2). Each scored on a 0 - 4 scale 2 = stated 2 briefly followed-up points	4.5 = Total score of reasons (1), confidence (2.5), validating (0), engagement in interaction (1.5). Each scored on a 0 - 4 scale. 1 = stated 4-5 simple points

Adolescent #1 is a female who was rated to have a secure attachment representation and who has a mother who also has a secure attachment representation. For the self-defining memory task, this adolescent did not discuss a self-defining memory. Their interaction contained mostly descriptions of general things, people, activities that were important to the participant; however, there was never a specific event discussed and thus no meaning made from the interaction.

> **Parent**: What do you like about show choir?
> **Adolescent**: I dunno, like, it's just wicked fun, like the singing and the dancing and like, I'm like friends with, like there's 36 girls in it and I'm like really really close with probably like 15 of them. I mean that's how I met Erin. Like it's just, it's just like everyone, I dunno it's just fun. And like, I dunno, that was like the best feeling in the world when I made it. Like…'cause like, I dunno like (17) and just the different themes that, like at the competitions everyone has different themes. And like, different outfits and
> **Parent**: And what about the plays?
> **Adolescent**: This, this The Fiddler on the Roof and Once on this Island were the best. They were fun. I don't, I dunno. They're not as fun as show choir, or jazz band because…and West Side Story, I already told you that I hated that.
> **Parent**: I thought you might choose not to do, if you do, um…
> **Adolescent**: If there's new management then I'm def, definitely doing it.
> **Parent**: If you do another, like, like an, like an, you know another involvement club.
> **Adolescent**: Yeah. I was thinking about doing peace jam.
> **Parent**: Do that instead of the musical.
> **Adolescent**: But a lot of people are doing that…it depends.

For the remainder of the interaction, very few (14) of the utterances were on-topic, and the conversation turned from the task at hand to discussing the process of participating in the study. For example:

> **Adolescent**: You know they're behind that mirror right there?
> **Parent**: Looking at us?
> **Adolescent**: Right? It's like a jail line up. You know how they do that? On Law and Order. How they can see us but we can't see them.
> **Parent**: Yeah, it's a one-sided mirror.

Overall, the parent guided the discussion and the dyad were perceived as warm and connected throughout the discussion by the coding team. The adolescent appeared to need the direction of the parent to scaffold and direct them back to the topic, but the parent was ineffective despite some efforts.

For the adolescent autonomy task, the adolescent and mother discussed two problems: the mother's desire for the child to read more; and the mother spending more time with the adolescent's brother. Throughout the discussion, the adolescent made 1-2 points and was able to briefly follow them up with more information to make a more solid case for her side of the argument. Her confidence throughout the discussion was more hesitant and tentative—although she maintained her position, she did so in a non-assertive way. She maintained relatedness by providing some indication of true validation and agreement with some enthusiasm or

encouragement. Her engagement, however, consisted of an adversarial attentiveness that implied that she was listening with the intent to argue or respond to the mother's points.

Adolescent #2 is a female who is rated to have a secure attachment representation and who has a mother who also has a secure attachment representation. For the self-defining memory task, this adolescent spoke positively about a self-focused topic which is typically experienced as a negative event (falling off a horse), and some meaning was made.

> **Parent**: Think about an experience in your life that would describe who you are. Something that you remember all the time.
> **Adolescent**: Something that I like to do?
> **Parent**: He said it could be positive, or negative
> **Adolescent**: Um…. What do I like? How about when I fell off the horse? Cause that like taught me like how I need to improve and to um, and I need to like, get over like, what happened to me, and learn to like trust that I won't get hurt.
> **Parent**: Alright, so it shows that you like horses.
> **Adolescent**: Yes
> **Parent**: and…
> **Adolescent**: that
> **Parent**: How did it feel when you were falling off?
> **Adolescent**: It hurt. But I learned that like sometimes bad things will happen but..
> **Parent**: but you're not afraid to…
> **Adolescent**: but now I'm not afraid to fall off because now I know that it doesn't really hurt when you fall off. I'm not gunna die.

Throughout the interaction, the dyad remained mostly on-topic with the adolescent leading the conversation. The adolescent did not stray from the topic very much, and when she did, the parent had some success in directing back to the topic. The coding team judged the dyad to be cordial and acquainted, but not particularly warm or cold.

For the adolescent autonomy task, the adolescent and mother discussed when the frequency that the adolescent "starts fights," as well as the adolescent getting mad when the Mom is mad at her. Throughout the discussion, the adolescent stated primarily simple points and did not follow them up with more information to make a more solid case for her side of the argument. Her confidence throughout the discussion was conveyed by consistently asserting her position but is still hesitant and tentative. Her relatedness during the interaction was not particularly strong. She did not evidence any moments of validation, while her engagement in the interaction was attentive, but resembled placating the mother while minimally hearing her position.