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Affective change greater for unpleasant than pleasant events in autobiographical memory of children and adults: A retrospective study

Leslie Rollins*, Jeffrey A. Gibbons, Elizabeth B. Cloude

Christopher Newport University, Department of Psychology, Christopher Newport University, Newport News, VA 23606, USA

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ABSTRACT

Research on autobiographical memory in adults shows affect associated with unpleasant events fades faster than affect associated with pleasant events, a phenomenon referred to as the fading affect bias (FAB; Walker et al., 2003). To investigate developmental differences in the intensity of emotion associated with autobiographical memories, 8–12-year-old children and adults retrospectively recalled and provided initial and current affect ratings for pleasant and unpleasant events experienced over the past year. Children and adults demonstrated the FAB, and the magnitude of the FAB was similar between age groups. Additionally, pleasant events that were frequently discussed with other individuals demonstrated low affective fading. Further, participants with low dispositional affect reported low affective fading of unpleasant events. Because the FAB is argued to support coping and positive perceptions of the self and the future, it is advantageous that this effect is observed by middle childhood.

1. Introduction

Autobiographical memory influences present and future behavior, conceptualizations of the self, and psychological well-being (e.g., Fivush & Sales, 2006; Sales & Fivush, 2005). Research on autobiographical memory in adults has shown affect associated with unpleasant events to fade faster than affect associated with pleasant events, a phenomenon referred to as the fading affect bias (FAB; Walker, Skowronski, Gibbons, Vogl, & Thompson, 2003). Little is currently known about how the emotional intensity of children's autobiographical memories changes over time. Thus, the primary goal of the current study was to assess whether children would also demonstrate the FAB. This area of research is important because a) it expands current knowledge about autobiographical memory processes in children and b) it examines whether the FAB, which is argued to support psychological coping as well as positive perceptions of the self and the future in adults, can be extended to children (Walker & Skowronski, 2009).

Autobiographical memory changes substantially during childhood (for review see Bauer, 2007). Children's autobiographical memory narratives increase in length, completeness, coherence, and elaborateness with age (Ackil, Van Abbema, & Bauer, 2003; Bauer et al., 2005; Fivush & Haden, 1997; Peterson, 2011; Reese et al., 2011; Van Abbema & Bauer, 2005). Further, age-related improvements are also present in children's ability to recollect contextual details associated with events, such as where and when events occurred (e.g., Bauer et al., 2012; Pathman, Doydum, & Bauer, 2013; Pathman, Larkina, Burch, & Bauer, 2013; Peterson, 2011). Bauer and Larkina (2014a) recently argued that improved memory for contextual details enhances the autobiographical quality of children's memories and may partially explain the cessation of childhood amnesia (i.e., the relative lack of memories for

* Corresponding author.
E-mail address: leslie.rollins@cnu.edu (L. Rollins).

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events that occur during early childhood). Of particular relevance to the current work are studies suggesting that with age children a) include more references to emotions and b) refer to a wider variety of emotions (Adams, Kuebli, Boyle, & Fivush, 1995).

Emotion is an integral component of experience that impacts memory encoding, consolidation, and retrieval (LaBar & Cabeza, 2006). Children demonstrate enhanced memory for emotional content from stories (Davidson, Luo, & Burden, 2001) as well as arousing and aversive pictures (Cordon, Melinder, Goodman, & Edelstein, 2013). Further, research suggests that cognitive reappraisal and emotional reminiscing can impact children's memory for emotional information (Leventon & Bauer, 2016; Van Bergen & Salmon, 2010). Cognitive reappraisal of negative stimuli reduced recognition memory and memory-related electrophysiological responses in 8-year-old girls (Leventon & Bauer, 2016), whereas emotional reminiscing, relative to non-emotional reminiscing, improved 3- to 6-year-olds' memory for both emotional and non-emotional aspects of a visit to the zoo (Van Bergen & Salmon, 2010).

Event valence impacts autobiographical memory narratives of children and their parents. Parents provide more causal explanations and ask children more open-ended questions about unpleasant events (i.e., a trip to an emergency room) than pleasant events (Sales, Fivush, & Peterson, 2003). Further, parent-child conversations about a traumatic event (i.e., a tornado) are longer, more complete, more coherent, and include more references to internal states than recollections of a non-traumatic event (Ackil et al., 2003; Bauer et al., 2005). Similarly, children's own recollections of unpleasant events include more references to thoughts and emotions but fewer contextual details relative to their narratives for pleasant events (Fivush, Hazzard, Sales, Sarfati, & Brown, 2003). This research collectively suggests that children's autobiographical memories differ for pleasant and unpleasant events and that socialization within the parent-child dyad may influence these accounts. However, research with children has yet to examine how emotion associated with personally experienced events changes over time.

Research with adults has shown that affect associated with events typically fades over time and that the magnitude of affective fading is larger for unpleasant events than for pleasant events, an effect that has been deemed the FAB (Walker et al., 2003; Walker, Vogl, & Thompson, 1997). The FAB is argued to serve an adaptive function by supporting coping, a positive perception of the self, and optimism about the future (for review see Walker & Skowronski, 2009). The FAB occurs quickly, as early as 12 h following the event (Gibbons, Lee, & Walker, 2011), and it is influenced by factors directly related to memory for the event. For example, the magnitude of the FAB increases along with the retention interval (Gibbons et al., 2011; Ritchie et al., 2006; Ritchie, Skowronski, Hartnett, Wells, & Walker, 2009; Walker et al., 1997). The FAB is also larger when memories are frequently rehearsed socially (Skowronski, Gibbons, Vogl, & Walker, 2004). Lastly, the FAB is related to individual differences in affective states, such as dysphoria and dispositional affect (Ritchie et al., 2009; Walker et al., 2003). Adults who exhibit strong dysphoria and negative dispositional affect demonstrate small FABs (Ritchie et al., 2009; Walker et al., 2003).

Despite the breadth of research on autobiographical memory in children and the FAB in adults, research has yet to determine whether children demonstrate the FAB. This gap in the current literature on autobiographical memory processes in children is important due to the relevance of the FAB for psychological coping as well as positive perceptions of the self and the future (Walker & Skowronski, 2009). We elected to assess the FAB in 8- to 12-year-old children and young adults due to research suggesting 7 years of age is an "inflection point" in autobiographical memory development (Bauer & Larkina, 2014a; Wetzler and Sweeney, 1986). Forgetting rates as well as the complexity and completeness of autobiographical memory narratives become adult-like after 7 years of age (Larkina, 2014a, 2014b;). We hypothesized that adults would demonstrate the FAB, but the novelty of the study made it unclear whether children would also demonstrate the FAB and, if present, whether the magnitude of the FAB would differ between children and adults. We also assessed whether event age, social rehearsal, personal rehearsal, dispositional mood, and depressive symptomology predicted or moderated change in affect. Based on the literature, we expected event age, social rehearsal, and personal rehearsal to positively predict the FAB, whereas we expected dispositional mood and depressive symptomology to negatively predict the FAB.

2. Method

2.1. Participants

A total of 35 children (M = 10.39 years, range = 8.00–12.78; 21 females and 14 males) and 31 young adults (M = 21.1 years, range = 18.35–27.27, 24 females and 7 males) participated in the study. The majority of the participants were Caucasian and non-Hispanic. The University's Institutional Review Board approved all procedures prior to data collection. Child participants were recruited through community advertisements and adult participants were recruited from the University's student participant pool. For child participants, parental consent and child assent were collected prior to participation; adult participants provided consent. In compensation for their participation, child participants received a toy or a gift card to a local merchant and adult participants received course credit.

2.2. Materials and procedure

2.2.1. Autobiographical memory task

Consistent with previous research on the FAB in adults (e.g., Gibbons et al., 2013; Walker et al., 2003), participants retrospectively recalled pleasant and unpleasant autobiographical events that occurred over the past year. Although studies in adults typically require the participants to transcribe events, the present study utilized an interview procedure to make the task more child-appropriate. Participants briefly described three pleasant and three unpleasant events orally while being audio-recorded. Pleasant events were described as events that made the participant feel "happy, glad, cheerful, pleased, good, or hopeful" at the time of the