

Stories of the Young and the Old: Personal Continuity and Narrative Identity

Kate C. McLean
University of Toronto

This study examined narrative identity in 2 groups of participants who were younger (ages ranging from late adolescence through young adulthood) and older (over the age of 65 years). Participants completed an extensive interview in which they reported three self-defining memories. Interviews were coded for several characteristics of autobiographical reasoning: self–event connections representing self-stability or self-change, event–event connections, reflective processing, and thematic coherence. Results showed that the older and younger groups were not different in terms of the frequencies of self–event connections or the levels of reflective processing. However, in comparison with the younger group, the older group had more thematic coherence and more stories representing stability, whereas the younger group had more stories representing change. Gender differences also emerged, suggesting that females may have an advantage in the development of narrative identity. Results are discussed in terms of the different ways to represent narrative identity at 2 ends of the life span.

Keywords: identity, narrative, autobiographical memory, adolescence, aging

Identity development takes center stage during adolescence and young adulthood; accordingly, this is where much of the research on identity has taken place. Life-span theories, however, consider self-development relevant across ages (e.g., Sneed & Whitbourne, 2001, 2005; Staudinger, 2001). In particular, theories that conceptualize identity as a narrative life story suggest that identity is indeed formed in adolescence and young adulthood but is also revised throughout the life course as new experiences are integrated into one's understanding of self (Cohler, 1993; Habermas & Bluck, 2000; Kroger, 2000; McAdams, 1993). Few studies examining narrative identity, however, have examined age differences in older samples, particularly in comparison with younger groups, which was the focus of the current study. Specifically, markers of autobiographical reasoning were examined in relation to age and gender in a sample of late adolescents and young adults and in a sample of adults over the age of 65 years.

Identity Development Across the Life Span

The major task of identity development is the integration of various aspects of the self, either over domains (e.g., Harter, 1999)

Kate C. McLean, Department of Psychology, University of Toronto, Mississauga, Ontario, Canada.

I thank Nida Ali, Silvia Fernandes, Numrah Irfan, Sybil Ngan, Sana Rizvi, Laina Smith, and Asma Teebi for data collection, transcription, and coding, as well as Elizabeth Olszewska for coordinating data collection for the older subject pool. Monisha Pasupathi, Lewis Jones, and Marc Fournier provided important insights, conversations, and critiques concerning the data and the manuscript. This study was supported by a Connaught Start-Up Award from the University of Toronto.

Correspondence concerning this article should be addressed to Kate C. McLean, who is now at Department of Psychology, MS-9089, Western Washington University, 516 High Street, Bellingham, WA 98225-9089. E-mail: Kate.McLean@wwu.edu

or over time (e.g., Fivush, 2001; McAdams, 1993; Pasupathi & Mansour, 2006). This study was focused on the latter type of integration strategy, in which identity development is viewed as the construction of a sense of personal continuity between one's past and present through the creation of a life story (e.g., McAdams, 1993). Maintaining a sense of personal continuity is crucial to psychological adaptation throughout the life course, as studies have shown that a lack of personal continuity can result in suicide in the worst cases (e.g., Chandler, Lalonde, Sokol, & Hallett, 2003) and is also the hallmark of some forms of psychopathology, particularly some personality disorders (Weston & Heim, 2003).

Integration across time involves incorporating experiences into one's identity, which can be done in two basic ways: one can integrate experiences by perceiving a change and revising one's identity, or one can integrate experiences by perceiving stability and confirming one's preexisting identity. Perceptions of both stability and change serve to develop a sense of personal continuity because one must refer to the existing self in either process. It is important to note that narrative is the means through which we integrate experience to explain how we have remained the same or changed (e.g., Bruner, 1986; Pasupathi & Mansour, 2006).

To better specify how one engages in narrative processes that serve to develop and maintain personal continuity, I turn to what Habermas and Bluck (2000) termed *autobiographical reasoning*, which they argue is the mechanism through which narrative identity, or the life story, develops. This process is self-reflective, as people think or talk about their pasts to form links between the past and the self to understand who they are and to create a life story (see also McLean, Pasupathi, & Pals, 2007).

The reflective process of autobiographical reasoning takes time; that is, developing an understanding of links between the past and the self takes distance and perspective. Theoretically, adolescence is when individuals begin to engage in autobiographical reasoning processes due to cognitive development and the social press to

define the self (Erikson, 1968; Habermas & Bluck, 2000; McLean, Breen, & Fournier, 2007). However, autobiographical reasoning should not cease at the end of adolescence but should continue to develop across the life course.

Of course, with age one has had more time to reflect on the past, but there are also motivational explanations for why autobiographical reasoning continues to develop in adulthood. Concerns with life review should prompt autobiographical reasoning, which is particularly adaptive for older adults (Erikson & Erikson, 1997; Wong & Watt, 1991). Further, older adults are motivated toward experiencing and savoring emotional experience (e.g., Carstensen, 1993), and autobiographical reasoning might sustain such a motive (Pasupathi & Mansour, 2006). Below I review the research that has shown that autobiographical reasoning processes do indeed increase across the life span, but first I note that autobiographical reasoning was proposed as an overarching term for the process of life story development, and there are many forms that autobiographical reasoning can take. First, one can vary in the amount or complexity of such reasoning. Second, one may or may not have a “product” of that reasoning. In the present study, I examined the complexity of such reasoning, as well as potential products of it, by examining in-depth interviews that elicited three self-defining memories.

Self–Event Connections

One of the most basic manifestations of autobiographical reasoning is the creation of connections between experience and the self (Pasupathi & Mansour, 2006; Pasupathi, Mansour, & Brubaker, in press), and although one’s ability to make connections between the self and the events one has experienced begins in adolescence, there is an increasing likelihood that one will make self–event connections across the life span, at least until the age of 60 years (Habermas & Paha, 2001; McLean et al., 2007; Pasupathi & Mansour, 2006). Prior studies (i.e., Habermas & Paha, 2001; Pasupathi & Mansour, 2006), however, have been unable to comprehensively test for content differences in these connections due to restricted power (cf., McLean et al., 2007). In the present study, I was able to conduct content analyses, which focused on whether connections were about personal change or personal stability. That is, do people report their self–event connections in terms of changes in the self or in terms of explanations of who they have always been?

Pasupathi, Mansour, and Brubaker (in press) suggested that stability, or self-explanatory connections, serve to bolster one’s self-concept, which may be more common in older adults. Indeed, a wealth of research in other fields has suggested that older adults have a preference for personal consistency in comparison with younger adults (e.g., Brown, Asher, & Cialdini, 2005). Further, Cohler (1993) suggested that the manner in which time and memory are used to construct the self changes for older adults as they near the end of life. Specifically, the need for a coherent and consistent story about the self becomes more important as the end of the story draws near (Cohler, 1993). Indeed, research has shown that older adults tend to assimilate change rather than to accommodate it (e.g., Sneed & Whitbourne, 2001; Troll & Skaff, 1997), perhaps to preserve self-continuity. Thus, even though older adults may be experiencing change, they were predicted to narrate the self in terms of self-explanatory connections in order to preserve a

sense of self-continuity, which may be particularly important in late life.

In contrast, younger people were predicted to narrate the self in terms of change for three reasons. First, Arnett (2000) has called emerging adulthood (the period from 18 to 25 years of age) an “age of instability” due to the focus on identity exploration, feelings of uncertainty, and even the frequency of residential moves. Second, constructing a change connection suggests that one is looking to the future, because narrating self-change demands at least partial thought of how that change will affect the future (Pasupathi et al., in press). Thus, for the younger person who is looking forward to what he or she might become, integrating the past might function to provide a more fluid sense of self that is open to new possibilities of development. Third, change connections might be particularly important to early life story development; as Pasupathi et al. (in press) suggested, change connections create new stories that have the potential to be integrated into the life story. Along these lines, it was also expected that for the younger group, more recently experienced events would be related to reporting change, as younger people are in the midst of transitions and are focused on narrating experience in terms of change.

Processing of Self–Event Connections

Beyond the type of self–event connection reported, the degree of reflective processing about these connections was also examined, which was defined as how much someone reported thinking about, talking about, or generally reflecting upon self–event connections. Some degree of processing is necessary to make a self–event connection in order to understand how the event is indeed connected to the self (e.g., McLean & Thorne, 2003; Pals, 2006; Pasupathi et al., in press). Because the younger group was expected to be in the midst of forming an identity, it was predicted that they would report higher processing scores. That is, the struggle of identity formation was expected to produce more efforts toward processing.

Event–Event Connections and Thematic Coherence

When Habermas and Bluck (2000) introduced the concept of autobiographical reasoning, they hypothesized that some aspects of such reasoning were more advanced than others. When early adolescents are beginning to think of themselves in a storied manner, processing and creating self–event connections should be the first manifestation of autobiographical reasoning. The next stage of life story development involves integrating the events that have been reflected upon in isolation into an entire life story, which is not expected to fully emerge until young adulthood at the very earliest (McAdams, 1993). In this study, event–event connections and thematic coherence were examined as markers of fully formed life stories, because both constructs involve understanding a larger story beyond singular events. Thus, it was expected that event–event connections and themes would be more common in the interviews from the older group than from the younger group.

Event–event connections involve drawing links between past events, rather than between events and the self, to create a more extended life story. Although no study has tested age differences in making explicit event–event connections, theoretically, event–

event connections are viewed as a more advanced form of autobiographical reasoning than self–event connections because they demand a greater perspective on one’s life to link disparate events together (Habermas & Bluck, 2000).

Thematic coherence is the general theme of one’s life story. Examples include “Life is difficult,” “I have been lucky,” “People cannot be trusted,” “Family is of the utmost importance.” No studies to date have examined age differences in thematic coherence. The method used in this study elicited three different self-defining memories, and thus it was possible that for those who have a life story theme, those three memories would be reported with more of a central theme or motif than would others. Thematic coherence may be the most advanced type of autobiographical reasoning, because one should have a fully formed life story in order to have a theme. If autobiographical reasoning increases across the life span, this processing should allow experience with integrating or pruning experiences from one’s life story, providing more opportunities for thematic coherence to manifest.

Gender

Even though age differences in autobiographical reasoning were the focus of this study, gender differences were also examined, although some analyses were exploratory because past research is somewhat contradictory. Research that has shown gender differences in autobiographical reasoning focuses mainly on the development of narrative skills in childhood. For example, in conversations about the past, parents are more likely to discuss emotions, particularly sadness, with daughters than with sons (see Fivush, Brotman, Buckner, & Goodman, 2000; Fivush & Buckner, 2000) and are more likely to elaborate on emotional states with daughters than with sons (e.g., Fivush, 1989). Further, over time, girls become more focused on orientation and evaluative components of narrative than do boys, particularly in narrating the psychological and emotional aspects of events (Haden, Haine, & Fivush, 1997). Thus, Fivush (1991) suggested that parents may work harder with their daughters to help resolve negative affect than with their sons, which may put daughters on a path toward developing a more elaborated self-concept, particularly in terms of emotional experiences (see also Fivush, Berlin, Sales, Mennuti-Washburn, & Cassidy, 2003).

These differences in parent–child conversations map on to some data on adult gender differences in autobiographical memory, such that women report their memories to be more personally revealing and longer than men report their own memories to be (Thompson, Skowronski, Larsen, & Betz, 1996), perhaps reflecting the childhood socialization toward more elaborated memories. Further, although theirs was not a study of autobiographical memory, Skultety and Whitbourne (2004) found that women engage in identity accommodation more often than men, and accommodation requires more cognitive effort and reflection (e.g., Block, 1982). Together, these results suggest that greater reflection and processing of the self is more common in women than in men.

Another area of research focused exclusively on autobiographical reasoning in late adolescents and adults has fairly consistently found a lack of gender differences in autobiographical reasoning. These studies have found no gender differences on meaning-making (McLean, 2005; McLean & Pratt, 2006; McLean & Thorne, 2003), growth themes or integrative memories (Bauer &

McAdams, 2004; Bauer, McAdams, & Sakeda, 2005), or the report of self–event connections (Pasupathi & Mansour, 2006). Further, gender differences did not emerge in self-report ratings of the vividness and significance of autobiographical memories (Rubin, Schulkind, & Rahhal, 1999).

These two areas of research differ on two important dimensions: age and a social versus an individual focus. The first set of studies focused mainly on conversations, examining how narrative understanding emerges with others, and the second set of studies examined internalized representations (usually written) of these experiences. Further, the conversation studies were conducted with very young children. In this study, I examined participants within the age ranges of the participants in the studies focused on the life story, but I used an interview format, which constitutes a social interaction. Thus, gender was examined, but no predictions were made, given contradictory past research.

Age \times Gender interactions were also examined on autobiographical reasoning processes and content, but in an exploratory fashion. Some research has found no such interactions predicting aspects of episodic memory, semantic memory, primary memory, and priming (e.g., Herlitz, Nilsson, & Backman, 1997), although this research comes from a cognitive-experimental method and is thus quite different in nature from the current study.

One reason to expect Age \times Gender interactions is due to the nature of the task in relation to cohort effects. The reflective and social nature of engaging in a self-defining memory interview may resonate, particularly with women and younger people, and may be particularly unnatural for older men. The older participants of this study were raised during a time of strict gender-role definition (i.e., they were children during the Great Depression or World War II). Indeed, James (2005) reported that the older the cohort, the more traditional the gender roles (see also Stewart & Healy, 1989). For example, those women who worked during World War II were encouraged to return to their homes at the end of the war (see James, 2005, for a discussion of day care policies). In contrast, the younger group was raised in an era in which views about gender were more fluid (e.g., Gergen, 1991). For the older cohort, the idea that women’s roles are more clearly focused on relational and emotional tasks suggests that older women, in comparison with older men, may be particularly inclined toward reflection and autobiographical reasoning in these interviews. Gender differences may not be as pronounced for the younger group, which has a more fluid understanding of gender roles.

Hypotheses

Thus, I predicted the following:

Hypothesis 1: The older group would be more likely to have explanatory connections, representing stability, than the younger group, who would be more likely to have change connections than the older group, and change connections would be associated with reporting more recent memories for the younger group.

Hypothesis 2: In comparison with the younger group, the older group would be more likely to have event–event connections and themes in their narratives.

Table 1
Means, Percentages, Standard Deviations, and Ranges for Relevant Variables by Age

Variable	Younger group		Older group	
	<i>M</i> (<i>SD</i>)	Range	<i>M</i> (<i>SD</i>)	Range
Age (years)	21.41 (4.76)	17–35	72.43 (4.72)	65–85
No. self-event cxns	3.74 (1.27)	1–7	3.96 (1.70)	1–8
% Change cxns ^a	.76 (.25)	0–1	.46 (.38)	0–1
% Explanatory cxns ^a	.19 (.21)	0–1	.52 (.40)	0–1
Level-of-processing scores	2.26 (.67)	1–5	2.14 (.72)	1–5
No. event-event cxns	.26 (.58)	0–3	.51 (.65)	0–2
Age at time of memory (years)	15.12 (4.23)	4–26.5	29.11 (12.14)	9–60.5

Note. cxns = connections.

^a Percentages do not add up to 100 because some connections were coded as reveal connections.

Exploratory analyses included gender differences and Age \times Gender interactions in autobiographical reasoning.

Method

Participants

Participants were recruited in three ways. The younger group was recruited either through the psychology subject pool at a public university in Southern Ontario, Canada, in which course credit was given for participation, or through snowballing methods in which undergraduate students in an advanced research methods class recruited participants who were not university students and who received no remuneration. The older adult sample was recruited from an older subject pool at this same public university in which all participants are paid for their time. This latter pool is fairly diverse, and its members are recruited through word of mouth and advertisements in the community. This pool is well maintained, and candidates for research participation are screened for health problems and cognitive decline upon entry into the pool and regularly thereafter. Participants for this study were recruited if they were in good cognitive and physical health and if they were able to write and understand English. Older adults received \$20 compensation, which is the standard compensation for the pool. Although participants received different kinds of compensation (or no compensation), compensation motivations do not appear to affect willingness to participate in research (Gribbin & Schaie, 1976). Educational or socioeconomic status was not available for participants.

The full sample consisted of 134 participants, with 49 participants in the older group ($n = 25$ male participants) and 85 participants in the younger group ($n = 42$ male participants). Mean ages and age ranges for the two groups are shown in Table 1. Self-reported ethnic/racial identities for the entire sample were as follows: White ($n = 40$); Canadian ($n = 29$), which could represent a variety of ethnicities; Southeast Asian ($n = 23$); East Asian ($n = 17$); West Asian ($n = 2$); African ($n = 6$); Arab ($n = 3$); Latino ($n = 1$); and Other ($n = 8$).

Procedure

All participants completed a self-defining memory interview, followed by several surveys not used in the present study (McLean

& Fournier, in press). Participants took between 1.5 and 2 hr to complete the entire assessment.

Tasks and Measures

Self-defining memory interview. For the purposes of the present study, Singer and Moffitt's (1991–1992) written survey for eliciting self-defining memories was adapted to an interview. Participants were given the definition of a self-defining memory, which is a memory that is vivid, emotional, highly memorable, personally important, at least 1 year old, and the kind of memory that powerfully conveys how one has come to be the person one currently is. Participants were asked to report three self-defining memories. After each memory was reported, participants were asked to report their age at the time of the memory and to elaborate on what the memory meant to their identity, as well as the reason for choosing it as self-defining. Participants were also asked several questions about whether or not they had told the memory previously, the answers to which were used for coding autobiographical reasoning (see McLean & Thorne, 2003). Because memory telling is believed to be part of the process of autobiographical reasoning (e.g., McLean, 2005; McLean et al., 2007; Pasupathi, 2001; Thorne, 2000; Thorne, McLean, & Lawrence, 2004), the inclusion of this part of the interview helped to elucidate how the person developed connections (e.g., through talking or thinking about them). Interviews were conducted by the author and six female undergraduate students of various racial/ethnic identities (e.g., White, Chinese, Middle Eastern, and Portuguese).¹ All interviewers were trained in the interview protocol, as well as to be respectful of participants' stories and to encourage participants' reflection on their lives.

Demographics. Before filling out the inventories described below, participants completed a demographics questionnaire that included self-reports of age, ethnicity, gender, and health, the latter of which was assessed by way of a 5-point scale, with 5 indicating *excellent health* and 1 indicating *poor health* (see Gutman, Stark, Donald, & Beattie, 2001, for a discussion of the adequacy of self-report health items).

¹ Interviewer effects were tested and ruled out.

Narrative Coding

All interviews were transcribed verbatim and coded by a team of three to four raters. The coding process entailed that each coder scored an interview protocol in private and then met with the other coders to discuss the codes for each interview. When there was disagreement, all coders used the interviews and coding manual to reach consensus on the final code. Reliability was then conducted for each code with a new rater who was blind to the hypotheses of the study. Reliability was acceptable for all codes; kappas and intraclass correlations are reported below for each code.

Self–Event Connections

Coders identified self–event connections when a participant reported any kind of connection between one of the three self-defining memories and the self. Then each connection was coded on a series of characteristics described below (see Table 2 for examples). Sixty connections were used for reliability analysis.

Type of connection. Each self–event connection was coded on one of three mutually exclusive categories: explanatory, change, or reveal (overall $\kappa = .76$), the latter of which was not used in the present study because it was reported at a low base rate, similar to findings from past studies (Pasupathi & Mansour, 2006; Pasupathi et al., in press). *Explanatory* refers to a connection that explains a stable aspect of the self (e.g., “This event shows what a nice person I am”; $\kappa = .85$). *Change* refers to a connection that caused some kind of change (e.g., “I became more independent”; $\kappa = .85$).

Processing. Each self–event connection was coded for the degree of processing on a 5-point scale, with 5 indicating the highest levels of processing and 1 indicating the lowest levels of processing ($r = .85$). High levels of processing were reflected by someone thinking about or reflecting upon the event to make a connection. Evidence included phrases or words such as “thought about, analyzed,” and “reflected upon.” Low processing was reflected by the absence of reflective words or phrases or in state-

ments such as, “I don’t know why I thought of that; it just came to me” or “I never really thought much about it.”

Event–Event Connections

Event–event connections were defined as explicit connections between events. These connections focused on how one event led to another or how events shared a common topic (e.g., of being shy). Thus, these are not connections between the self and events but are connections between different events that one has experienced. Event–event connections were coded as the number present or absent for the interview, and reliability was acceptable in 25 cases ($\kappa = .76$).

Theme

Themes were emphasized by the reporter as being important to the self. For example, simply reporting three relationship memories would not be coded as a theme unless the participant repeatedly emphasized the importance of relationships to one’s life. Examples include the impact of war, overcoming obstacles, personal independence, or relational themes. Each interview was coded for the presence of absence of a theme, and 25 cases were coded for reliability ($\kappa = .83$).

Results

Descriptive Statistics

As can be seen in Table 1, participants reported three to four self–event connections over the course of the interview and fewer than one event–event connection. Processing scores fell slightly below the midpoint of the scale. Most self–event connections were about change, followed by those about explanation. The mean age of participants at the time of their reported memories was 29 years for the older adults and 15 years for the younger group.

Table 2
Narrative Examples

Narrative type	Example
Self-event connection	“I learned a lot in that period because it was um, uh, I learned that I could enjoy life again.”
Event-event connection	“Sometimes you blame someone for accidents and I think I blamed my husband. . . . Eventually, we were divorced.” (Events are accident with son and divorce with husband.)
Change connection	“It sort of helped me become a more open person to new ideas and. . . more willing to try new things.”
Explanatory connection	“I don’t think I understand it any differently. . . . At my age I think we know who we are and what we are.”
High level of processing	“You live and learn. . . I learned a lot from that experience. . . I, learned a lot in that, I don’t know if this is what you mean by defining, but I learned a lot in that period because it was um, uh, I learned.”
Low level of processing	“I don’t know. I don’t know if it really means anything to my identity. Umm, hmm, I don’t know.”

Table 3
Intercorrelations of Narrative Variables for Each Age Group

Variable	1	2	3	4	5
1. No. self-event cxns	—				
2. No. event-event cxns	(.20) (-.02)	—			
3. No. explanatory cxns	(.17) (-.33*)	(.08) (-.09)	—		
4. No. change cxns	(-.30**)(.25)	(-.03) (.15)	(-.82**)(-.90***)	—	
5. Level of processing	(-.09) (.22)	(.15) (.38**)	(-.32**)(-.36*)	(.20) (.44**)	—

Note. Values in first sets of parentheses are for the younger sample; values in the second sets of parentheses are for the older sample. cxns = connections. * $p < .05$. ** $p < .01$. *** $p < .001$.

To examine racial/ethnic group differences, participants were grouped into four categories: Asian ($n = 41$), White ($n = 40$), Canadian ($n = 29$), and Other ($n = 22$). There were no main effects of race/ethnicity on the main variables of interest, and there were also no interactions with age and gender. Further, older ($M = 4.14$) and younger ($M = 4.06$) adults did not differ on self-reported health, $t(132) = -0.73, ns$.

Central Analyses

For all relevant analyses, proportions of self–event connections were used (e.g., the number of change connections divided by the total number of connections per person). This was done to avoid confounds with irrelevant variables, such as interview length.

Intercorrelations of Narrative Variables

As can be seen in Table 3, the relations between narrative variables differed to some extent by age group. The younger group showed a negative relation between the frequency of self–event connections and change connections, while the older group showed a negative relation between the frequency of self–event connections and explanatory connections. For both groups, there was a negative relation between explanatory connections and processing, and for the older group there was a positive relation between change connections and processing. Further, for the older group, but not for the younger group, making more event–event connections and change connections was related to greater processing scores. For both groups, making more explanatory connections was related to making fewer change connections, although this is likely related to the mutually exclusive coding system.

Age and Gender: Change, Stability, and Coherence

A general linear model was used to test for main effects of age and gender and Age \times Gender interactions on the dependent variables: frequency of self–event and event–event connections, percentages of change and explanatory connections, and mean processing scores. Bonferroni corrections were used such that the alpha level was adjusted by dividing the typical alpha level by the number of dependent variables ($.05/5 = .01$) to preserve the family probability value at .05 and to protect against Type 1 error; thus, a Bonferroni-corrected alpha level of .01 was used.

Frequency of self–event connections. There were no main effects of age or gender on the frequency of self–event connections, nor were there any Age \times Gender interactions.

Explanatory connections. As expected, a main effect of age was found for the percentage of explanatory connections, $F(1) = 46.69, p < .000$, partial $\eta^2 = .26$, such that younger participants ($M = 0.19$) made fewer of these kinds of connections than did older participants ($M = .52$). A main effect of gender was found for the percentage of explanatory connections, $F(1) = 21.75, p < .000$, partial $\eta^2 = .14$, such that female participants ($M = .24$) made fewer of these kinds of connections than did male participants ($M = .47$). A significant Age \times Gender interaction was found for explanatory connections, $F(1) = 12.20, p < .000$, partial $\eta^2 = .09$. Male and female participants in the younger group reported similar levels of explanatory connections, and although both male and female older participants reported more explanatory connections than did male and female participants in the younger group, the older male participants reported even more (see Figure 1).

Change connections. As expected, a main effect of age was found for the percentage of change connections, $F(1) = 31.85, p < .000$, partial $\eta^2 = .20$, such that younger participants ($M = .76$) made more of these kinds of connections than did older participants ($M = .47$). A main effect of gender was found for the percentage of change connections, $F(1) = 12.91, p < .000$, partial $\eta^2 = .09$, such that female participants ($M = .71$) made more of these kinds of connections than did male participants ($M = .52$). A significant Age \times Gender interaction was found for change connections. Male and female participants in the younger group reported similar levels of change connections, but older male participants reported fewer change connections than the younger group and than older female participants, $F(1) = 12.77, p < .000$, partial $\eta^2 = .09$ (see Figure 2). Finally, as expected, those in the younger group with memories from more recent ages were more likely to have change connections, $r(85) = .35, p < .001$.²

Processing. Unexpectedly, there was no effect of age on processing scores.³ A main effect of gender was found for processing,

² There were no relations between age at the time of the memory and the autobiographical reasoning variables for the older group. In terms of main effects of age and gender, not surprisingly, a main effect of age was found for age at the time of the memory, $F(1) = 76.43, p < .000$, such that the younger group had earlier memories ($M = 15.37$) than did the older group ($M = 29.12$). There were no main effects of gender or Gender \times Age interactions for age at the time of the memory.

³ Within-group correlations for each age group were run to determine whether there was a linear relation between age and the proportion of kinds of connections or the mean levels of processing. No significant correlations between age and these dimensions emerged in the younger or in the older group.

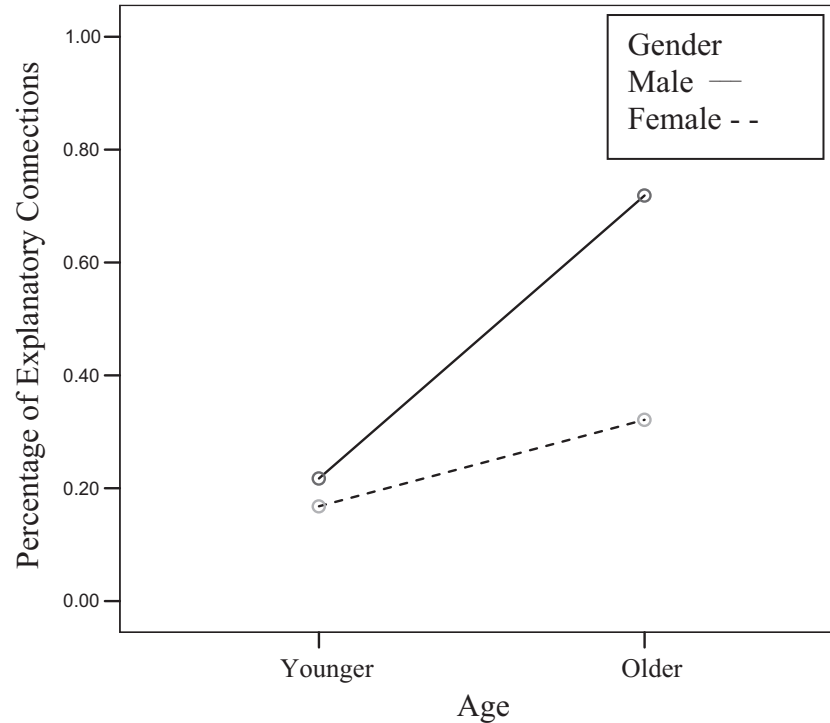


Figure 1. Age × Gender interaction for explanation connections.

$F(1) = 8.53, p < .004$, partial $\eta^2 = .06$, such that female participants ($M = 2.38$) scored higher than did male participants ($M = 2.02$). There were no Age × Gender interactions for processing.

Event–event connections. As expected, a main effect of age was found for the number of event–event connections, $F(1) = 13.00, p < .023$, partial $\eta^2 = .04$, such that younger participants ($M = .26$) made fewer of these kinds of connections than did older participants ($M = .51$), although this result failed to reach significance using the more rigorous probability value. There were no gender effects or Age × Gender interactions on the frequency of event–event connections.

Thematic coherence. In terms of thematic coherence, as expected, the older group was more likely to report a theme than was the younger group, $\chi^2(1, N = 134) = 4.59, p < .05$. Female participants were also more likely to report a theme than were male participants, $\chi^2(1, N = 134) = 3.63, p < .05$.

Discussion

So when I came here it sort of helped me become a more open person to new ideas in our and like, more willing to try new things, so yeah, so that sort of shaped my personality, I guess. (Female participant, 18 years of age)

At my age I think we know who we are and what we are. (Female participant, 69 years of age)

These quotes reflect the different patterns of narration that older and younger individuals use as they narrate their personal stories. Although all humans experience change and transition, the results of this study suggest that the manner in which changes are integrated into the self differs by age. Indeed, this is the first study to

document age differences in several aspects of autobiographical reasoning in these groups. Specifically, older people were more likely than younger people to report thematic coherence, reflecting the general pattern of results that the older group had more fully formed and stable life stories than did the younger people, who were still in the process of constructing those stories and who focused more on change and transition. There were also similarities between groups, however, in terms of the frequency of self–event connections and reflective processing. Finally, gender differences emerged, suggesting that the narrative identities of men and women differ in some important aspects, although these results are qualified by some Age × Gender interactions.

Narrative Identity in Two Age Groups: Self-Stability and Change

Younger and older people appear to have different self-representations, with younger people constructing the self more in terms of change and older people constructing the self more in terms of stability. These representations of change may reflect expectations of society in which comments about how one has “grown up” or “matured” are common and complimentary. These results may also reflect the objective truth that young people often do experience a great deal of change in relationships, residential spaces, vocational and occupational experiences, and identity development (Arnett, 2000). Indeed, for the younger group, those with more recent memories were more likely to have change connections, suggesting that their more recent life events were still in flux.

Interestingly, older adults are also experiencing a great amount of objective change in terms of physical, cognitive, occupational,

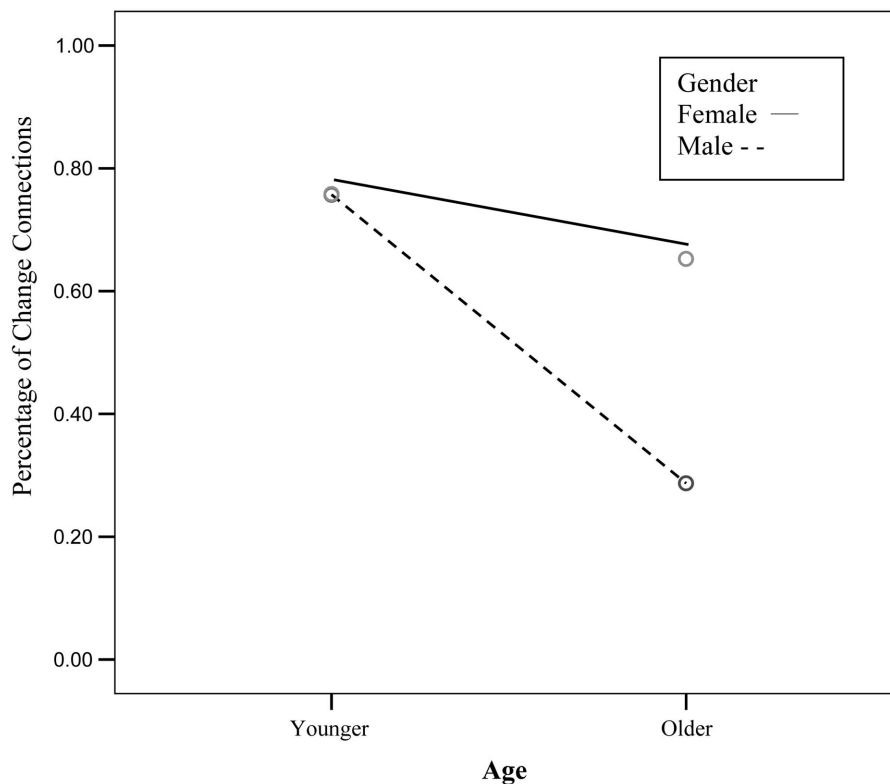


Figure 2. Age \times Gender interaction for change connections.

and relational transitions (e.g., Sneed & Whitbourne, 2005), yet their narratives focused on stability. This sense of stability may actually be quite adaptive at this life stage as older adults attempt to maintain a coherent and continuous sense of self in the threats of loss and life changes (Bluck & Habermas, 2001; Cohen, 1998).

Other results from this study are consistent with the picture of older adults as more stable and fully integrated in their self-representations. Older adults were more likely to have themes to their interviews, which may bolster story stability, as there is one main metaphor on which to hang one's singular stories. Although older adults were not statistically more likely to have more event-event connections than younger adults, the result was in the right direction, and the significance level constituted a trend ($p = .07$). The method of data collection may actually have limited the number of event-event connections, as three different memories were elicited. Methods that encourage or allow for more integration between events may indeed find that this trend is more substantial. It is also possible that the findings concerning event-event connections and thematic coherence could be related to cognitive decline, in that associative mechanisms are stronger in old age. Although the participant pool from which these participants were drawn has regular screenings for cognitive decline, this study did not control for such an effect.

Although there were some interesting age differences, there were also similarities, notably in terms of processing. It was predicted that the younger group would have higher processing scores than the older group because they are in the process of actively forming their life stories, yet the processing scores were

equivalent. The similarity between age groups in processing could signify that these two groups were engaged in similar kinds of processing or that similar mean levels of processing served different functions in these two groups. The younger group may have been increasing their processing as reflecting upon their life stories became more pressing, yet they had likely not yet reached the full height of reflective processing seen in midlife (Bauer et al., 2005; Labouvie-Vief, 2003; Pasupathi & Mansour, 2006). In contrast, it is possible that the older group was decreasing or leveling off in the amount of reflection and effort put into processing life stories (Labouvie-Vief, 2003; Pasupathi & Mansour, 2006). One reason that older adults may decline in reflective processing is because such processing has often been assumed to be a part of the process of directing the future (e.g., McLean & Pratt, 2006; McLean & Thorne, 2003; Pillemer, 1992), and older adults' goals have turned less toward directing the future and more toward living in the moment (Carstensen, Isaacowitz, & Charles, 1999). Indeed, Staudinger (2001) reported that younger and older people were equally likely to engage in life reflection, but younger people reported reflecting to better understand themselves or to solve a problem, whereas older people reported reflecting to integrate their lives (see also Webster, 1995). Of course, these motivational differences were not tested in this study, but this interpretation may be fruitful for future research endeavors.

One interesting age difference in processing was that for older adults, the more processing they engaged in, the more change connections they reported; this was not true for the younger group (see Table 3). This suggests that older adults may be getting more

“bang for their buck,” so to speak, such that processing results in making change connections at these ages. The younger group may not be as skilled or practiced at constructing these connections through reflective processing. That is, it may take time to learn to process and to experience the products of that processing.

Gender

Some intriguing gender differences emerged, as well as Age \times Gender interactions. Female participants, in comparison with male participants, were more likely to have a theme, to engage in more processing of connections, and to report more change and fewer explanatory connections. For change and explanatory connections, this was driven by age, with the major differences in change and explanatory connections being between older men and women. These differences may be due to basic gender differences in self-representation (e.g., Charles & Pasupathi, 2003) or possibly due to cohort differences in the rigidity of gender roles, as discussed earlier.

Regardless of age, however, female participants still reported more processing and more thematic coherence. On the face of it, these results suggest that women have better developed life stories than do men. This interpretation is in line with research on parent-child conversations about the past in which girls developed more elaborated narrative selves (e.g., Fivush, 1991). However, as mentioned previously, much of the past research on narrative development in older age groups has consistently found a lack of gender differences in different aspects of autobiographical reasoning (e.g., Bauer & McAdams, 2004; Bauer et al., 2005; McLean, 2005; McLean & Pratt, 2006; McLean & Thorne, 2003; Pasupathi & Mansour, 2006).

In interpreting these gender differences, it is important to keep two differences in mind between this study and prior studies. First, age appears to be a factor in at least some of these gender differences, and older age groups were not examined in all of the prior studies. Second, all of the previous studies cited here on life story memories used written measurements to assess autobiographical reasoning (with the exception of Study 1 of Pasupathi & Mansour, 2006), and the current study used an interview, which provides a level of social intimacy not seen in anonymous survey writing and with which the female participants may have been more comfortable or familiar, possibly inducing them to provide more elaborated narratives. For example, in comparison with men, women disclose more in general (Reisman, 1990), particularly on topics that are intimate or personal (Aries & Johnson, 1983; Huston & Ashmore, 1986; Peplau, 1983), and women also outperform men on verbal episodic memory tasks (Herlitz et al., 1997). This interpretation is in line with arguments that researchers need to pay attention to the context of the research environment and how it might affect the stories that are told and the ways that they are told (e.g., Gubrium & Holstein, 1998; Luborsky, 1993). Understanding how differences in context and methods (e.g., solitary reminiscence versus social sharing) are important to gender differences in narrative identity is an important avenue for future research to address.

Limitations and Conclusions

Perhaps the major limitation of this study is that it was not longitudinal. The results here are suggestive of developmental

changes but are only snapshots of narrative identity at different ages. Further, these are correlational results and the effect sizes were small, suggesting that other variables may play roles in autobiographical reasoning. There were also many contextual factors that were not assessed in the current study that might affect the findings. Further information on the background of the participants (e.g., education level, social class) would have helped to untangle how demographic factors figure into autobiographical reasoning processes (e.g., Luborsky, 1993). Finally, as mentioned in the discussion of the gender findings, the interview may have created a context particularly likely to induce autobiographical reasoning. Although this was part of the point of the study, the interviews may not reflect the storytelling practices that occur in the everyday lives of participants. Stories are created to meet the demands of particular contexts and situations, and the research situation is one to consider in terms of how it might affect the kinds of stories that are told (e.g., Chase, 2003; Gubrium & Holstein, 1998).

In conclusion, narrative identity is often thought of as a construct, but these results suggest that narrative looks different and perhaps functions differently at different ages. Thus, although the underlying mechanisms for developing self-narratives may be similar across the life span, the functions of creating stories to live by may be quite different. For younger people, narrative appears to provide a means for self-exploration and self-understanding, and for older people, it appears to provide a means for stability and resolution. Both groups are striving toward a sense of personality continuity but do so in different manners and potentially for quite different reasons.

References

- Aries, E., & Johnson, F. (1983). Close friendships in adulthood: Conversational content between same-sex friends. *Sex Roles, 9*, 1183–1196.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*, 469–480.
- Bauer, J. J., & McAdams, D. P. (2004). Personal growth in adults' stories of life transitions. *Journal of Personality, 72*, 573–602.
- Bauer, J. J., McAdams, D. P., & Sakeda, A. R. (2005). Interpreting the good life: Growth memories in the lives of mature, happy people. *Journal of Personality and Social Psychology, 88*, 203–217.
- Block, J. (1982). Assimilation, accommodation, and the dynamics of personality development. *Child Development, 53*, 281–295.
- Bluck, S., & Habermas, T. (2001). Extending the study of autobiographical memory: Thinking back about life across the life span. *Review of General Psychology: Special on Autobiographical Memory, 5*, 135–147.
- Brown, S. L., Asher, T., & Cialdini, R. B. (2005). Evidence of a positive relationship between age and preference for consistency. *Journal of Research in Personality, 39*, 517–533.
- Bruner, J. (1986). *Actual minds, possible worlds*. Cambridge, MA: Harvard University Press.
- Carstensen, L. L. (1993). Motivation for social contact across the life span: A theory of socio-emotional selectivity. In J. Jacobs (Ed.), *Nebraska Symposium on Motivation: Developmental perspectives on motivation* (pp. 209–254). Lincoln: University of Nebraska Press.
- Carstensen, L. L., Isaacowitz, D. M., & Charles, S. (1999). Taking time seriously: A theory of socioemotional selectivity. *American Psychologist, 54*, 165–181.
- Chandler, M. J., Lalonde, C. E., Sokol, B. W., & Hallett, D. (2003). Personal persistence, identity development, and suicide: A study of Native and non-Native North American adolescents. *Monographs of the Society for Research in Child Development, 68*, vii–130.

- Charles, S. T., & Pasupathi, M. (2003). Age-related patterns of variability in self-descriptions: Implications for everyday affective experience. *Psychology and Aging, 18*, 524–536.
- Chase, S. E. (2003). Learning to listen: Narrative principles in a qualitative research methods course. In R. Josseleson, A. Lieblich, & D. P. McAdams (Eds.), *Up close and personal: The teaching and learning of narrative research* (pp. 79–100). Washington, DC: APA Press.
- Cohen, G. (1998). Aging and autobiographical memory. In C. P. Thompson, D. J. Herrmann, D. Bruce, J. D. Read, D. G. Payne, & M. P. Togliola (Eds.), *Autobiographical memory: Theoretical and applied perspectives* (pp. 105–123). Hillsdale, NJ: Erlbaum.
- Cohler, B. J. (1993). Aging, morale, and meaning: The nexus of narrative. In T. R. Cole, W. A. Achenbaum, P. L. Jakobi, & R. Kastenbaum (Eds.), *Voices and visions of aging: Toward a critical gerontology*, (pp. 107–133). New York: Springer.
- Erikson, E. H. (1968). *Identity, youth, and crisis*. New York: Norton.
- Erikson, E. H., & Erikson, J. M. (1997). *The life cycle completed: Extended version*. New York: Norton.
- Fivush, R. (1989). Exploring sex differences in the emotional content of mother–child conversations about the past. *Sex Roles, 20*, 675–691.
- Fivush, R. (1991). Gender and emotion in mother–child conversations about the past. *Journal of Narrative & Life History, 1*, 325–341.
- Fivush, R. (2001). Owning experience: Developing subjective perspective in autobiographical narratives. In C. Moore & K. Lemmon (Eds.), *The self in time: Developmental perspectives* (pp. 35–52). Mahwah, NJ: Erlbaum.
- Fivush, R., Berlin, L. J., Sales, J. M., Mennuti-Washburn, J., & Cassidy, J. (2003). Functions of parent–child reminiscing about emotionally negative events. *Memory, 11*, 179–192.
- Fivush, R., Brotman, M. A., Buckner, J. P., & Goodman, S. H. (2000). Gender differences in parent–child emotion narratives. *Sex Roles, 42*, 233–253.
- Fivush, R., & Buckner, J. P. (2000). Gender, sadness, and depression: The development of emotional focus through gendered discourse. In A. H. Fischer (Ed.), *Gender and emotion: Social psychological perspectives. Studies in emotion and social interaction* (2nd series, pp. 232–253). New York: Cambridge University Press.
- Gergen, K. J. (1991). *The saturated self: Dilemmas of identity in contemporary life*. New York: Springer.
- Gribbin, K., & Schaie, K. W. (1976). Monetary incentive, age, and cognition. *Experimental Aging Research, 2*, 461–468.
- Gubrium, J. F., & Holstein, J. A. (1998). Narrative practice and the coherence of personal stories. *Sociological Quarterly, 39*, 163–187.
- Gutman, G. M., Stark, A., Donald, A., & Beattie, B. L. (2001). Contribution of self-reported health ratings to predicting frailty, institutionalization, and death over a 5-year period. *International Psychogeriatrics, 13*, 223–231.
- Habermas, T., & Bluck, S. (2000). Getting a life: The emergence of the life story in adolescence. *Psychological Bulletin, 126*, 248–269.
- Habermas, T., & Paha, C. (2001). The development of coherence in adolescent's life narratives. *Narrative Inquiry, 11*, 35–54.
- Haden, C. A., Haine, R. A., & Fivush, R. (1997). Developing narrative structure in parent–child reminiscing across the preschool years. *Developmental Psychology, 33*, 295–307.
- Harter, S. (1999). *The construction of the self: A developmental perspective*. New York: Guilford Press.
- Herlitz, A., Nilsson, L. G., & Backman, L. (1997). Gender differences in episodic memory. *Memory & Cognition, 25*, 801–811.
- Huston, T. L., & Ashmore, R. D. (1986). Women and men in personal relationships. In R. D. Ashmore & R. K. Del Boca (Eds.), *The social psychology of female–male relations* (pp. 167–209). Orlando, FL: Academic Press.
- James, J. B. (2005). Commentary: This American life: A discussion of the role of history in developmental outcomes. In K. W. Schaie & G. Elder (Eds.), *Historical influences on lives and aging* (pp. 21–34). New York: Springer.
- Kroger, J. (2000). *Identity development: Adolescence through adulthood*. Thousand Oaks, CA: Sage.
- Labouvie-Vief, G. (2003). Dynamic integration: Affect, cognition, and the self in adulthood. *Current Directions in Psychological Science, 12*, 201–206.
- Luborsky, M. R. (1993). The romance with personal meaning in gerontology: Cultural aspects of life themes. *The Gerontologist, 33*, 445–452.
- McAdams, D. P. (1993). *The stories we live by: Personal myths and the making of the self*. New York: Morrow.
- McLean, K. C. (2005). Late adolescent identity development: Narrative meaning-making and memory telling. *Developmental Psychology, 41*, 683–691.
- McLean, K. C., Breen, A., & Fournier, M. A. (2007). *Constructing the self in early, middle, and late adolescent boys: Processes of narrative identity development and well-being*. Manuscript submitted for publication.
- McLean, K. C., & Fournier, M. (in press). The content and processes of autobiographical reasoning in narrative identity. *Journal of Research in Personality*.
- McLean, K. C., Pasupathi, M., & Pals, J. L. (2007). Selves creating stories creating selves: A process model of narrative self development in adolescence and adulthood. *Personality and Social Psychology Review, 11*, 262–278.
- McLean, K. C., & Pratt, M. W. (2006). Life's little (and big) lessons: Identity statuses and meaning-making in the turning point narratives of emerging adults. *Developmental Psychology, 42*, 714–722.
- McLean, K. C., & Thorne, A. (2003). Adolescents' self-defining memories about relationships. *Developmental Psychology, 39*, 635–645.
- Pals, J. L. (2006). The narrative identity processing of difficult life experiences: Pathways of personality development and positive self-transformation in adulthood. *Journal of Personality, 74*, 1079–1110.
- Pasupathi, M. (2001). The social construction of the personal past and its implications for adult development. *Psychological Bulletin, 127*, 651–672.
- Pasupathi, M., & Mansour, E. (2006). Adult age differences in autobiographical reasoning in narratives. *Developmental Psychology, 42*, 798–808.
- Pasupathi, M., Mansour, E., & Brubaker, J. (in press). Stability and change in personal storytelling: Developmental relations in autobiographical narratives. *Human Development*.
- Peplau, L. A. (1983). Roles and gender. In H. H. Kelley, E. Bercheid, A. Christiansen, J. H. Harvey, T. L. Huston, G. Levinger, E. McClintock, L. A. Peplau, & D. R. Peterson (Eds.), *Close relationships* (pp. 220–264). New York: Freeman.
- Pillemer, D. B. (1992). Remembering personal circumstances: A functional analysis. In E. Winograd & U. Neisser (Eds.), *Affect and accuracy in recall: Studies of "flashbulb" memories. Emory symposia in cognition* (Vol. 4, pp. 236–264). New York: Cambridge University Press.
- Reisman, J. (1990). Intimacy in same-sex friendships. *Sex Roles, 23*, 65–82.
- Rubin, D. C., Schulkind, M. D., & Rahhal, T. A. (1999). A study of gender differences in autobiographical memory: Broken down by age and sex. *Journal of Adult Development, 6*, 61–71.
- Singer, J. A., & Moffitt, K. H. (1991–1992). An experimental investigation of specificity and generality in memory narratives. *Imagination, Cognition, and Personality, 11*, 233–257.
- Skultety, K. M., & Whitbourne, S. K. (2004). Gender differences in identity processes and self-esteem in middle and later adulthood. *Journal of Women & Aging, 16*, 175–188.
- Sneed, J. R., & Whitbourne, S. K. (2001). Identity processing styles and the need for self-esteem in middle-aged and older adults. *International Journal of Aging & Human Development, 52*, 311–321.

- Sneed, J. R., & Whitbourne, S. K. (2005). Models of the aging self. *Journal of Social Issues, 61*, 375–388.
- Staudinger, U. M. (2001). Life reflection: A social-cognitive analysis of life review. *Review of General Psychology: Special on Autobiographical Memory, 5*, 148–160.
- Stewart, A. J., & Healy, J. M. (1989). Linking individual development and social changes. *American Psychologist, 44*, 30–42.
- Thompson, C. P., Skowronski, J. J., Larsen, S. F., & Betz, A. (1996). *Autobiographical memory: Remembering what and remembering when*. Hillsdale, NJ: Erlbaum.
- Thorne, A. (2000). Personal memory telling and personality development. *Personality & Social Psychology Review, 4*, 45–56.
- Thorne, A., McLean, K. C., & Lawrence, A. M. (2004). When remembering is not enough: Reflecting on self-defining memories in late adolescence. *Journal of Personality, 72*, 513–541.
- Troll, L. E., & Skaff, M. M. (1997). Perceived continuity of self in very old age. *Psychology and Aging, 12*, 162–169.
- Webster, J. D. (1995). Adult age differences in reminiscence functions. In B. K. Haight & J. D. Webster (Eds.), *The art and science of reminiscing: Theory, research, methods, and applications* (pp. 89–102). Philadelphia: Taylor & Francis.
- Weston, D., & Heim, A. K. (2003). Disturbances of self and identity in personality disorders. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 643–666). New York: Guilford Press.
- Wong, P. T., & Watt, L. M. (1991). What types of reminiscence are associated with successful aging? *Psychology and Aging, 6*, 272–279.

Received October 2, 2006

Revision received April 2, 2007

Accepted July 16, 2007 ■

E-Mail Notification of Your Latest Issue Online!

Would you like to know when the next issue of your favorite APA journal will be available online? This service is now available to you. Sign up at <http://notify.apa.org/> and you will be notified by e-mail when issues of interest to you become available!