

Parental Influences on Memories of Parents and Friends

FRANCA TANI
ALICE BONECHI

University of Florence, Italy

CAROLE PETERSON

Memorial University of Newfoundland, Canada

ANDREA SMORTI

University of Florence, Italy

ABSTRACT. The authors evaluated the role parent–child relationship quality has on two types of memories, those of parents and those of friends. Participants were 198 Italian university students who recalled memories during 4 separate timed memory-fluency tasks about their preschool, elementary school, middle school, high school and university years. Half were instructed to recall memories involving parents and the remainder memories involving friends. Moreover, parent–child relationships were assessed by the Network of Relationships Inventory (NRI; W. Furman & D. Buhrmester, 1985) and Adolescents’ Report of Parental Monitoring (D. M. Capaldi & G. R. Patterson, 1989). Results showed that men with positive parent–son relationships had more memories of parents and more affectively positive memories of friends, supporting a consistency model positing similarity between parent–child relationships and memories of friends. Women with positive parental relationship quality had more affectively positive memories of parents but for friends, positive relationship quality only predicted positive memories when young. At older ages, especially middle school-aged children, negative parent–daughter relationships predicted more positive memories of friends, supporting a compensatory model. The gender of parent also mattered, with fathers having a more influential role on affect for memories of friends.

Keywords: friends’ memories, memory fluency, parental influence, parents’ memories, young adults

Address correspondence to Franca Tani, University of Florence, Department of Psychology, Via di San Salvi, 12, Complesso di San Salvi Padiglione 26, 50135 Firenze, Italy; franca.tani@psico.unifi.it (e-mail).

From the earliest years of childhood, children develop significant relationships with several social partners, particularly with family members and, increasingly with age, with friends (for a review, see Smetana, Campione-Barr, & Metzger, 2006). These relationships are fostered through interactions and time spent doing things together, all of which create memories. A substantial body of research has demonstrated that parents can have a significant influence on the memories of their children, especially during the preschool years (see reviews in Fivush, Haden, & Reese, 2006; Nelson & Fivush, 2004). A fundamental assumption of these studies is that the remembering of significant events is a social activity (Fivush, 1988; Fivush & Fromhoff, 1988; McAdams, 2001) and that social interaction affects the building of memories. Even during the adolescent years, family interaction and narration are important for memory making. Recently, those memories that are most readily accessible have been increasingly seen as important for the construction of a coherent sense of self and are most likely to be integrated into a person's life story (Bohanek, Marin, Fivush, & Duke, 2006; Conway & Holmes, 2004; McAdams, 1993, 2001). Thus, it is reasonable to assume that the sorts of interactions children have with their parents may affect the sorts of memories children have about their parents, and in particular the highly accessible memories that are more likely to become part of an individual's life story. However, parents are not the only salient social partners that children have. In particular, friends become increasingly important as children get older. In the present study, we explore the premise that parents have an important influence not just on their children's memories of parents but also on their children's memories of their friends. Specifically, we evaluate the role that the quality of parent-child relationships has on two different types of memories, those of parents and those of friends.

Influences of Parent-Child Relationship Quality on Memories

Parents talk frequently with their children and vary significantly in the frequency and style of their conversations about the past. In particular, individual differences are ranged along a dimension of elaboration (Fivush et al., 2006; Fivush & Reese, 2002; Peterson & McCabe, 2004). Highly elaborative parents of preschool-aged children elicit long and detailed discussions of past events, and they tend to accept and to expand the contribution made by children during these conversations, using predominantly open-ended questions in order to introduce new information in dialogue (Fivush et al, 2006; Wareham & Salmon, 2006). In contrast, low elaborative parents tend not to talk frequently about their child's past experiences, their conversations are short and not very detailed, and they use closed questions that do not enrich the dialogue with more information. Longitudinal reports have shown that children of highly elaborative mothers have a greater ability to share discussions on memories of past events (Farrant & Reese, 2001; Haden & Fivush, 1996) and that, toward the end of the preschool years, they

provide more coherent and detailed narrative reports of their personal experiences (Reese & Brown, 2000).

Another important dimension of the parent–child relationship that is related to the quality of children’s memories is the amount of parental involvement in their children’s lives. Several studies have reported that the style and the content of mother–child reminiscing are significantly correlated with the quality of the parent–child relationship (for a review, see Nelson & Fivush, 2004). Reminiscing style is correlated with type of mother–child attachment (Farrant & Reese, 2001; Fivush et al., 2006) and in turn, attachment patterns influence the content of memories (McCabe, Peterson, & Connors, 2006) as well as the child’s communication style (Bretherton & Mulholland, 1999; Thompson, 2000). In particular, parent–child dyads characterized by a secure attachment style discuss past events frequently, talk about events that have high emotional content, and are better at negotiating and elaborating what has happened (Farrant & Reese, 2001; Newcombe & Reese, 2004). Furthermore, a positive and rich affective relationship between parent and child contributes to a more positive communication style (Ryan, 1993) and a more positive communicative interaction that includes talking about past experiences (Jackson, Bijkstra, Oostra, & Bosma, 1998). Therefore it is not surprising that parents who are more involved in their children’s lives also have better knowledge of their children’s activities, friends, and whereabouts (Kerr & Stattin, 2000; Stattin & Kerr, 2001).

Overall, then, researchers have demonstrated that the quality of the parent–child interaction has a significant influence on the number and content of children’s memories. Specifically, young children as well as adolescents who have a positive and rich affective relationship with their father and mother can recall more events of their past; their memories are also richer in detail and emotional references. However, little research has explored whether the memories of adults are similarly influenced by the quality of parent–child relationships. McAdams (1993, 2001) argued that the nature of children’s relationships with their parents can ultimately be reflected in the tone and quality of autobiographical memories even after individuals become adults. This has been noted by attachment researchers using the Adult Attachment Interview; attachment classification is related to an individual’s memories as well as the coherence of an individual’s representations of his or her parents (Main, Kaplan, & Cassidy, 1985). Nevertheless, there is limited research that assesses the quality of individuals’ relationships with their parents and then relates it to their memories as adults. One exception is a study by Peterson, Smorti, and Tani (2008) on memories for an individual’s earliest years. They demonstrated that, indeed, a highly positive parent–child relationship and high parental involvement have a significant effect on the memories of early life recalled by Italian young adults. Specifically, the more positive the relationship with father and mother and the higher the degree of parental involvement in their children’s lives, memories recalled from the preschool years were earlier and more affectively positive. Because that study was limited to assessing the influence of

parent–child relationship quality on a person’s earliest memories, it is important to see if the quality of those relationships also influences adults’ memories from other periods of life. This is one focus of the present study.

Gender Differences in Memory

Several authors have argued that reminiscing style is related to gender. Specifically, both mother and father are more elaborative with daughters than with sons (Fivush, Brotman, Buckner, & Goodman, 2000) and they use more emotion words while discussing past experiences with daughters (Adams, Kuebli, Boyle, & Fivush, 1995; Fivush, Berlin, Sales, Mennuti-Washburn, & Cassidy, 2003). They also engage in more detailed and in more relationship-oriented reminiscing activities with daughters than with sons (Buckner & Fivush, 2000; Reese & Fivush, 1993) and they tend to talk more and differently about feelings to girls than to boys (Fivush & Kuebli, 1997; Haden, Haine, & Fivush, 1997).

These gender differences related to reminiscing style may come to influence the quality of children’s memory reports. For example, by 4 or 5 years of age, some investigators have found that memory reports of girls compared to boys are longer, more detailed, and emotionally richer (Buckner & Fivush, 1998), although others have found such gender differences neither in report quality (Peterson & McCabe, 1983) nor in how many or how early children’s memories for very early life events are (Peterson, Grant, & Boland, 2005; Peterson, Wang, & Hou, 2009). However, gender differences are more typically found for adults. Women from Western European cultures have been found to tell more vivid, longer and more relationally oriented autobiographical narratives (Bauer, Steenes, & Haight, 2003) with more information about other people and about emotional aspects of events than men do (Niedzwienska, 2003). In contrast, men recall more memories focused on mastery and performance, with less reference to other people (McAdams et al., 2006; Thorne, 1995).

Gender differences in adults’ memories have also been noted in their recall of their earliest years of life. Women have been found to recount more memories from early childhood and date those memories back to an earlier age than do men (Mullen, 1994; Wang, Conway, & Hou, 2004), although gender differences are not always found (Hayne & MacDonald, 2003; Peterson, Noel, Kippenhuck, Harmundal, & Vincent, 2009) and are moderated by both culture (MacDonald, Uesiliana, & Hayne, 2000) and task methodology (Peterson, Noel, et al., 2009). Women have also been found to recall more memories of positive experiences (Peterson et al., 2008). Importantly for the present study, Peterson et al. (2008) also showed that the quality of their participants’ relationships with their parents had a different effect on men and women. Women who had warmer relationships with their mothers had earlier first memories than did women with less positive mother–daughter relationships, but the number of memories they retrieved was unrelated to parent–child relationship quality. In contrast, men who had warmer

relationships with both mothers and fathers as well as had parents who were more involved in their lives recalled more memories of their early childhood. As well, men with positive parent–son relationships recalled proportionately more affectively positive memories than did men with poorer parent–son relationships or had less involved parents. However, this investigation only assessed the moderating role of gender in terms of the association between memory for very early life events (specifically, prior to school entry) and quality of parent–child relationships. Thus, it is possible that gender is a crucial moderating variable not only for an individual’s earliest memories but also for memories derived from different periods of childhood. Exploring this is another aim of the present study.

Memories of Parents Versus Friends

McAdams’s (2001) life story model of identity posits that people construct and internalize narratives of the self, integrating them into a personal life story containing a number of important themes and experiences from different periods of their life. Other proponents of a life-story model have also suggested that an individual’s life history is constructed through the selection and organization of personal autobiographical memories (Conway, 2005; Habermas & Bluck, 2000). A preponderance of memories come from recent years (Rubin, Schrauf, & Greenberg, 2004; Rubin & Schalkind, 1997), and the ones that are readily accessible are those that are vivid and central to a person’s life story and contribute to self-making (Conway & Holmes, 2004; Conway & Pleydell-Pearce, 2000; Elnick, Margrett, Fitzgerald, & Labouvie-Vief, 1999). But memories from an individual’s more distant past are also common. Developmental theories posit that the most relevant themes for the self and the construction of identity change across different stages of life. In infancy and childhood the most relevant themes center on parents and the issues of trust, autonomy and initiative; for school age children, a prevalent theme is industry; in adolescence, important themes are the need for mutual connection and intimacy; and, finally, in adulthood the theme of generativity is prevalent (Erikson, 1959, 1997; Sullivan, 1953). Memory researchers have demonstrated that the content of autobiographical memories from different periods of life is related to the different psychological themes predominant at different ages (Conway & Holmes, 2004; Holmes & Conway, 1999; Thorne, 1995). According to these studies, memories of parents prevail in childhood because a child’s experiences are primarily focused on their interactions with mother and father. In contrast, memories of close friends prevail in adolescence because at this age the need for establishing mutual and enduring relationships with peers is paramount.

One of the most salient psychosocial changes that occurs in the transition from childhood to adolescence involves the role parents and friends play in a child’s experience (Brown, 2004; Laursen & Bukowski, 1997). Adolescence is a developmental period characterized by psychological change and an increasing level of autonomy (Lerner et al., 1996). It is also a period when parent–child

relationships are restructured: conflict with parents increases whereas warmth decreases (McGue, Elkins, Walden, & Iacono, 2005). Moreover, according to attachment theory, there is some shifting of attachment bonds from parents to peers (Connolly, & Johnson, 1996; Hazan & Shaver, 1994; Hazan & Zeifman, 1994). Friends become increasingly important as a source of support (Hirsch & DuBois, 1992) and play a critical role in facilitating the exploration of social identities and separation from the family (Crosnoe, 2000; Harter, 1999).

In fact, within an attachment framework, there are two different orientations regarding how to conceptualize the developmental changes in adolescents' relationships with significant others, from parents on the one hand to friends or romantic partners on the other. The first orientation argues that there is substantial consistency between the models of infant attachment and those of adult attachment (Collins & Read, 1994; Hazan & Shaver, 1994). According to this hypothesis, children who have warm and supportive parents search for intimate relationships with friends and have warm and supportive friendships (MacDonald, 1992). Moreover, positive parent-child interaction and support are associated with more positive friendships (Cui, Conger, Bryant, & Elder, 2002; Youngblade & Belsky, 1992).

In contrast, the second orientation highlights some compensatory mechanisms in attachment patterns toward parents versus friends (Crowell & Waters, 2006; Scharfe & Bartholomew, 1994). In particular, during adolescence, as the quality of the parent-adolescent relationship declines, some supportive functions are transferred from parents to friends (Laursen & Bukowski 1997). According to this hypothesis, poorer relationships with parents are not always linked to poorer relationships with other social partners.

A recent study (Peterson, Bonechi, Smorti, & Tani, in press) is consistent with suggestions that there are developmental changes in children's memories of parents versus friends as they get older and relationships change. The authors elicited memories from Italian young adults and compared memories that involved parents with those that involved friends during four periods of life ranging from preschool-aged through adolescence. They found that memories of parents were more numerous for the preschool years but that those of friends increased in frequency across age until they were more numerous in adolescence. As well, memories of parents became more affectively negative across age whereas those of friends did not. The authors concluded that memories can serve as a reflective mirror for the sorts of developmental changes that take place in relationships with parents and friends.

Present Study

As argued previously, the quality of parent-child relationships can influence one's memory for events that involved an individual's parents. However, it is also possible that the quality of parent-child relationships can influence memories of other social partners, specifically those of friends. Furthermore, because readily

accessible memories reflect changing themes in different periods of life, we expect memories of different social partners to vary across different periods of the life cycle. Specifically, in the present study we explored (a) memory fluency and affect regarding memories of parents and friends, (b) the link between the quality of parent–child relationships and the number and emotional tone of memories young adults can readily access that involve both parents and friends, and (c) the role of gender in moderating this link. Using a memory-fluency task, participants were asked to recall as many memories as they could about four periods of their lives: when they were (a) preschool-aged, (b) in elementary school, (c) in middle school (in North America, junior high), and (d) in high school or university. These ages were chosen because they demarcate major educational transitions, which help people locate memories in time. In order to avoid interference effects between parents' and friends' memories, approximately half of the participants were asked to recall only memories that involved their parents in some way, and the remaining participants were asked to recall only memories that involved their friends. They all subsequently described their age at the time of each of their memories as well as the emotion attached to each, if any. In terms of parent–child relationships, we assessed their affective quality with both parents individually by the Network of Relationships Inventory (Furman & Buhrmester, 1985) as well as parental involvement in their child's life by the Parental Monitoring Scale (Capaldi & Patterson, 1989).

Hypotheses

As to memory fluency and affect, we hypothesized on the basis of previously discussed literature that women would recall more memories of both parents and friends, not only from early childhood, but also from different periods of their life and that they would recall more memories of positive experiences than men would.

As to the link between the quality of parent–child relationships and the number and emotional tone of memories, with regard to memories of parents, previous researchers have found that parents who have good relationships with their children and are highly involved in their lives tend to discuss past events frequently (Farrant & Reese, 2000; Newcombe & Reese, 2004). These discussions are embedded within affectively positive interactions (Jackson, et al., 1998; Ryan, 1993), and facilitate recall of discussed experiences (Boland, Haden, & Ornstein, 2003; McGuigan & Salmon, 2004). Thus, these positive parental behaviors may help daughters and sons maintain more accessible and positive memories of their parents. Consequently, we predicted that adolescents who have a more positive relationship with their mother and father as well as have parents who were more involved in their lives would recall more memories (and more positive memories) involving their parents than would adolescents who have a less positive

relationship with their parents. We also predicted that this would be true across all four periods of childhood and adolescence.

In terms of the influence of parent–child relationship quality on memories of friends, two hypotheses are possible. According to the consistency hypothesis described previously, children who have warm and supportive parents tend to search for intimate relationships with friends that are also warm and supportive (MacDonald, 1992). That is, they are likely to have learned behaviors that reflect these relationship qualities and therefore should have more numerous and more positive memories of friends. In contrast, according to the compensatory hypothesis, a good relationship with parents is not always linked to good relationships with other social partners (Scharfe & Bartholomew, 1994). Rather, children with negative-toned relationships with parents may compensate by seeking out warm and intimate relationships with friends to provide them with support. Therefore, individuals with good parent–child relationships may have negative memories of their experiences with friends whereas those with poor parent–child relationships may have positive memories of friends. We also conjectured that these associations are moderated by the gender of both the respondent and their parent. Given how little empirical evidence there is to date regarding the association between interpersonal relationships and memory, our analyses were strictly exploratory.

Method

Participants

A total of 198 university students from the University of Florence (117 men and 81 women; M age = 22 years, SD = 1.6 years; age range = 18–28 years) were recruited for this study. Seventy-seven percent of participants came from the area around Florence. Participants came from families of middle or high socioeconomic level with more than 60% of their parents having a high school diploma or university degree. As well, 71% of the participants had at least one sibling and 73% lived with parents.

Participants were divided into two groups: the first consisted of 53 men and 36 women (70% lived with parents), and the second consisted of 64 men and 45 women (76% lived with parents). The first group of participants was requested to recall memories that included parents, whereas the second group of participants was asked to recall memories that included friends. Both filled out two questionnaires on parent–child relationship (see subsequent sections). In both groups the memory fluency task and the questionnaires on parent–child relationship were administered in counterbalanced order.

Instruments

Questionnaire on parent–child relationship. To assess parent–child relationships we administered two instruments. The first was the Network of Relationships

Inventory (NRI; Furman & Buhrmester, 1985), which measures the perceptions of quality of relationship with father and mother. The present version of the NRI consists of 42 items that assess 14 relationship qualities (Companionship, Conflict, Instrumental Aid, Antagonism, Intimacy, Nurturance, Affection, Admiration, Reliable Alliance, Support, Criticism, Dominance, Satisfaction, and Punishment). Participants rated each of these qualities in their relationships with both mother or stepmother, and father or stepfather using a 5-point Likert-type scale ranging from 1 (*little or none*) to 5 (*the most*). Each of the 14 relationship qualities was measured across three items and the mean response to those three items was derived for each relationship quality. Thus the score for each relationship quality varied from a score of 1–5. Examples of the items included in each scale were “How much free time do you spend with your mother/father?” (Companionship); “How much do you and your mother/father disagree and quarrel” (Conflict); “How much does your mother/father help you figure out or fix things?” (Instrumental Aid); “How much do you and your mother/father get on each other’s nerves?” (Antagonism); “How much do you share your secrets and private feelings with your mother/father?” (Intimacy); “How much do you take care of your mother/father?” (Nurturance); “How much does your mother/father like or love you?” (Affection); “How much does your mother/father treat you like you’re admired and respected?” (Admiration); “How sure are you that this relationship with mother/father will last no matter what?” (Reliable Alliance); “How often do you turn to your mother/father for support with personal problems?” (Support); “How often does your mother/father criticize you?” (Criticism); “How often does your mother/father end up being the one who makes the decision for both of you?” (Dominance); “How good is your relationship with your mother/father?” (Satisfaction); and “How much does your mother/father punish you?” (Punishment)

Subsequently, according to guidelines by the questionnaire authors, we derived two global scores: social support and negative interchanges. The social support score consisted of the average of the companionship, instrumental aid, intimacy, nurturance, affection, admiration, satisfaction, support, and Reliable Alliance scores. The negative interchanges score was composed of the average of the conflict, antagonism, criticism, dominance, and punishment scores. Separate scores were derived for the relationship with mother and father. Psychometric analyses reported by the authors showed that the internal consistency coefficients of the scales scores were satisfactory (Cronbach’s $\alpha = .80$; Furman, 1996; Furman & Buhrmester, 1985). The Italian adaptation of the NRI confirmed the original structure of the instrument both for fathers (comparative fit index [CFI] = .94; nonnormed fit index [NNFI] = .93; root mean square error of approximation [RMSEA] = .05; standardized root mean square residual [SRMR] = .08) and mothers (CFI = .93; NNFI = .92; RMSEA = .05; SRMR = .08). Also, internal consistency scores are very good both for mothers (social support, Cronbach’s $\alpha = .90$; negative interchanges, Cronbach’s $\alpha = .82$) and fathers (social support, Cronbach’s $\alpha = .92$; negative interchanges, Cronbach’s $\alpha = .81$; Guarnieri & Tani,

in press; Tani & Guarnieri, 2010). The second scale to assess parent–child relationships was the Adolescents' Report of Parental Monitoring (Capaldi & Patterson, 1989), which measures parental monitoring and involvement in children's lives. This scale consists of seven questions to which participants respond on a standard 5-point Likert-type scale ranging from 1 (*never*) to 5 (*almost always*). The questions ask about parent–child communication regarding children's activities outside of home (e.g., “Did you inform your parents about activities you were doing or intended to do?”; “Did your parents ask you what you did during the day?”). The total score is the sum of the seven items and ranges from 7 to 35. Caprara, Pastorelli, Regalia, Scabini, and Bandura (2005) adapted Capaldi and Patterson's scale on a sample of 380 high school Italian adolescents (185 boys and 195 girls), and the alpha reliability for the scale was .84. The authors found good positive correlations ($r = .42$) between scores derived from the Adolescents' Report of Parental Monitoring and open communication with father and with mother as measured by the Parent–Adolescent Communication Scale, an instrument developed by Barnes and Olson (1982), and negative correlations ($r = -.39$) with escalative conflict with parents as measured by the Parent–Adolescent Disagreement's Scale (Honest et al., 1997).

Questionnaire on parent and friend memories. To study the accessibility of participants' memories from different periods of their life, they were recruited while in class during university courses and asked to recall as many memories as they could from four specified time periods. The first group of participants was asked to recall memories that included parents, whereas the second group was asked to recall memories that included friends. When participants understood the nature of the tasks, the first timed recall session took place. They were given a sheet of paper with separate lines labeled for memory 1, memory 2, and so on, and were asked to recall as many memories as they could (that included parents or friends) and write a short sentence or two summary of each memory on the different lines. They were given 3 min to do this task (timed by the researcher). Afterward, participants were asked to go back through their list of memories and for each one, to specify how old they were when the event occurred (in years and months), and their emotion at the time. They then were given a new sheet of paper and the second timed recall session took place. There were a total of four timed recall sessions, administered in the same order: memories of the preschool years (under age 6), elementary school, middle school, and high school or university. Each of these timed recall sessions lasted for 3 min. and alternated with an untimed period allowing participants to describe their age at the time of each memory and to specify the type of emotion they had experienced (e.g., joy, sadness) The whole task entailed about 40 min. The research was conducted in accordance with the guidelines for the ethical treatment of human participants of the American Psychological Association. Prior permission was obtained from the University dean and president as well as

each course professor. Participants provided their individual consent and could withdraw at any time.

Data Coding

The number of memories from each age period was tabulated and then classified. On the basis of the type of emotions expressed by the participants two raters independently classified them, according to the main tone of the emotions, as positive when the emotion referred to a basic state of pleasure of the narrator (e.g., joy, satisfaction, love), negative when the emotion referred to a basic state of unpleasantness of the narrator (e.g., anxiety, pain, sorrow), and neutral when the narrator identified no emotion or used negation to express his or her feeling (e.g., not anxious, not excited). The two raters compared ratings and resolved disagreements through discussion. Cohen's kappa for agreement was high (.81).

Results

Memory Fluency and Affect

Means and standard deviations for the number of memories as well as the percentages of positive and negative memories are shown in Table 1 for memories of parents and Table 2 for memories of friends, separated by age period and

TABLE 1. Memories of Parents: Means and Standard Deviations for Number of Memories as well as Percentage of Positive and Negative Memories, by Age Period and Gender

Age period	Measure	Men		Women		Both	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1	Number of memories	4.06	2.23	4.43	1.80	4.20	2.07
	% Positive	65.50	30.70	74.20	26.10	69.00	29.10
	% Negative	30.50	29.40	22.00	26.20	27.10	28.40
2	Number of memories	4.51	1.97	4.77	2.06	4.61	2.00
	% Positive	56.50	29.80	63.50	27.80	59.30	29.10
	% Negative	37.40	28.00	34.00	27.80	36.00	27.80
3	Number of memories	3.75	1.88	4.17	2.30	3.92	2.05
	% Positive	46.80	30.40	51.60	31.30	48.70	30.70
	% Negative	44.00	29.70	40.70	31.50	42.80	30.20
4	Number of memories	4.58	2.57	5.54	1.87	4.96	2.35
	% Positive	44.00	28.80	56.20	25.40	48.90	28.00
	% Negative	51.00	31.40	37.80	25.50	45.70	29.80

TABLE 2. Memories of Friends: Means and Standard Deviations for Number of Memories as well as Percentage of Positive and Negative Memories, by Age Period and Gender

Age period	Measure	Men		Women		Both	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1	Number of memories	3.26	1.67	3.39	1.71	3.31	1.68
	% Positive	72.60	29.70	67.70	32.40	70.50	30.80
	% Negative	22.00	25.60	25.90	30.50	23.70	27.70
2	Number of memories	4.29	2.12	5.20	2.15	4.67	2.17
	% Positive	62.40	29.50	58.70	24.40	60.80	27.50
	% Negative	27.70	27.70	32.80	23.80	29.80	26.20
3	Number of memories	5.14	2.35	6.14	2.87	5.56	2.61
	% Positive	62.90	28.00	60.80	23.50	62.00	26.10
	% Negative	23.80	21.20	29.00	21.10	26.00	21.20
4	Number of memories	6.69	2.80	8.00	3.15	7.23	3.01
	% Positive	62.50	25.90	62.70	22.80	62.60	24.60
	% Negative	27.90	24.20	29.70	22.60	28.70	23.50

gender. Based on the two data sets of parent and friend memories, 2×4 analyses of variance (ANOVAs) with repeated measures were carried out with gender as a between-subjects factor and age period as a within-subjects factor.

Memories of parents. For the memories involving parents, results showed a significant main effect of age period on the number of memories, $F(3, 84) = 8.72$, $p < .001$, $\eta^2 = .24$, as well as on the proportion of both positive, $F(3, 84) = 8.03$, $p < .001$, $\eta^2 = .23$, and negative memories, $F(3, 84) = 7.93$, $p < .001$, $\eta^2 = .22$. Both in men and women, memory fluency increased with increasing age. Moreover, the affective tone of memories changed: the proportion of negative memories increased whereas positive ones decreased with age. Also, a significant main effect of gender emerged in terms of the number of memories, $F(1, 86) = 4.07$, $p < .05$, $\eta^2 = .05$, and the proportion of negative memories, $F(1, 86) = 5.11$, $p < .05$, $\eta^2 = .06$: girls, in comparison with boys, recalled more memories, and proportionately less negative memories, about parents.

Memories of friends. For the memories involving friends, a significant main effect of age period emerged both in the number of memories, $F(3, 99) = 64.88$, $p < .001$, $\eta^2 = .66$, and in the proportion of positive memories, $F(3, 99) = 2.77$, $p = .05$, $\eta^2 = .07$: Passing from childhood to adolescence memory fluency increased, however, in contrast to what occurs for parents, the proportion of positive memories about friends increased whereas the proportion of negative ones remained stable. In

addition, the results of the repeated measures ANOVAs showed a significant main effect of gender on the number of memories, $F(1, 101) = 4.24, p < .05, \eta^2 = .04$, but not on the proportion of either positive, $F(1, 101) = 0.90, ns$, or negative, $F(1, 101) = 1.97, ns$ ones: women recounted more memories of their friends from each period of their life than men did, but the affective tone of their memories about friends was not different from that of men. No significant interaction between age period and gender was found.

Parent–Child Relationship Quality and Memory

To assess the association between parent–child relationship quality and memories of parents and friends, we first computed correlations (Pearson's r) between the memory measures and the variables assessed in the two questionnaires on parent–child interaction. The memory measures included the total number of memories recalled as well as the percentages of positive and negative memories, separated by age period and gender. Table 3 shows the correlations between memory measures and quality of relationship measures for memories of parents, and Table 4 shows the correlations for memories of friends. Finally, stepwise regressions were run on each of the memory measures, separately for each gender and each age period. The variables entered as predictors were the NRI quality of relationship measures (i.e., positive mother–child, positive father–child, negative mother–child, and negative father–child relationship quality), as well as parental involvement. Given the mainly exploratory aim of this study stepwise regressions (forward method) were employed.

Memories of parents. For memories involving parents that were recalled by men, in Age Period 1, having a positive parent–child relationship with dad or having parents who were highly involved in their life was associated with recalling more memories involving parents during the preschool years (see Table 3). In Age Period 2 when they were in elementary school, there was a tendency for the same relationship measures (positive father–son relationship and parental involvement) to be related to the number of memories recalled. In Age Period 3, parental involvement was also related to men recalling more memories involving parents while they were in middle school (junior high school), but there were no significant correlations between number of memories and parent–child relationship variables in Age Period 4. In terms of the affective tone of men's memories, it is only in Age Period 4 (high school or university) that there is an association between the parent–child relationship measures and the emotional tone of memories. Having a more negative mother–son relationship was associated with men having fewer positive and more negative memories of their parents.

The pattern of correlations between parent–child relationship measures and memories involving parents was different for women. For them, parental involvement was only related to how many memories they recalled in Age Period 3,

TABLE 3. Memories of Parents: Correlations Between Memory Measures and Quality of Parent–Child Relationships and Amount of Parental Involvement, by Age Period and Gender

Age period	Memory measure	Quality of relationship				Parental involvement
		Pos.- Mom	Pos.- Dad	Neg.- Mom	Neg.- Dad	
Men						
1	Number of memories	.165	.282*	-.007	-.058	.440***
	% Positive	-.021	.147	-.176	.022	.148
	% Negative	.003	-.183	.168	-.057	-.135
2	Number of memories	-.108	.247 ⁺	-.087	-.118	.239 ⁺
	% Positive	.120	.199	-.202	-.226	.158
	% Negative	-.049	-.165	.181	.253 ⁺	-.151
3	Number of memories	.223	.193	-.217	.037	.292*
	% Positive	.052	.100	.072	.126	.035
	% Negative	.075	-.096	-.027	.047	-.109
4	Number of memories	-.015	.079	.143	.073	.123
	% Positive	.174	.183	-.287*	-.044	-.021
	% Negative	.010	-.022	.235 ⁺	-.017	.048
Women						
1	Number of memories	.095	.087	-.063	-.181	.243
	% Positive	.192	.023	-.305 [†]	-.169	.443**
	% Negative	-.297	-.022	.247	.063	-.522**
2	Number of memories	.157	.236	-.104	-.054	.095
	% Positive	.155	.061	.044	-.051	.122
	% Negative	-.143	-.111	-.084	-.019	-.135
3	Number of memories	.305 [†]	.309	.034	-.077	.344*
	% Positive	.022	-.223	-.162	-.556***	.065
	% Negative	-.051	.228	.221	.556***	-.107
4	Number of memories	.185	.194	.000	.118	.175
	% Positive	.302 [†]	-.039	-.007	-.045	.007
	% Negative	-.386*	-.114	-.156	-.100	-.093

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

when they were in middle school. However, there were more associations between the affective tone of memories and parent–child relationship variables. In Age Period 1 when they were preschool-aged, higher parental involvement was associated with proportionately more positive and fewer negative memories, and there was a tendency for more negative mother–daughter relationships to be associated with fewer positive memories as well. Although there are no associations between parent–child relationships and the affective tone of memories in Age

TABLE 4. Memories of Friends: Correlations Between Memory Measures and Quality of Parent–Child Relationships and Amount of Parental Involvement, by Gender and Age Period

Age period	Memory measure	Quality of relationship				Parental involvement
		Pos.- Mom	Pos.- Dad	Neg.- Mom	Neg.- Dad	
Men						
1	Number of memories	.126	.026	.028	.110	-.196
	% Positive	.030	.056	-.030	-.090	-.021
	% Negative	.061	.066	.097	.139	.124
2	Number of memories	.054	-.085	-.002	-.066	.034
	% Positive	.196	.277*	.023	.052	.185
	% Negative	-.116	-.160	.108	.135	.060
3	Number of memories	-.224 [†]	-.125	-.041	.007	-.219 [†]
	% Positive	.228 ⁺	.484**	-.151	-.161	.309*
	% Negative	-.242 [†]	-.351*	.205	.167	-.116
4	No. Memories	-.094	-.146	-.205	-.337**	-.218 [†]
	% Positive	.242 [†]	.241 [†]	-.118	-.012	.031
	% Negative	-.114	-.184	.98	.103	.090
Women						
1	No. Memories	.003	.219	.145	-.082	-.250
	% Positive	.181	.188	.174	.055	-.008
	% Negative	-.272 [†]	-.291*	-.157	.328*	.066
2	No. Memories	-.124	.052	.276 [†]	-.027	-.327*
	% Positive	.136	.080	.022	-.296*	.074
	% Negative	-.274 [†]	-.392**	.051	.309*	-.184
3	No. Memories	-.057	-.164	.401**	-.062	-.261 [†]
	% Positive	-.072	-.168	.310*	.329*	-.049
	% Negative	.028	.107	-.298*	-.181	.026
4	No. Memories	-.051	-.093	.271 [†]	.104	-.157
	% Positive	-.009	.059	.219	-.064	.057
	% Negative	-.204	-.271 [†]	-.203	.111	-.149

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Period 2, in Age Period 3 (when they were in middle school), having a negative father–daughter relationship was strongly related to women having proportionately fewer positive and more negative memories of parents. In Age Period 4, it is a positive mother–daughter relationship that is correlated with the affective tone of memories: more positive mother–daughter relationships were related to proportionately fewer negative and more positive memories.

Lastly, regressions were calculated for each of the memory measures (separately by Gender and Age Period), with the parent–child relationship measures (positive mom relationship, negative mom relationship, positive dad relationship, negative dad relationship, and parental involvement) as predictors. The regression analyses for which parent–child relationship quality was a significant predictor of a memory measure about recollections involving parents are described in Table 5. For men’s memories involving parents, the regressions on the total number of memories showed that in each of the first three age periods, the amount of parental involvement was the only significant predictor, with those males who had more involved parents having more memories of parents in those age periods. There were no significant predictors for the number of memories recalled in Age Period 4. In terms of the affective tone of memories, only in Age Period 4 were parent–son relationship variables related to memory: The more negative the mother–son relationship, the fewer positive memories were recalled.

For women’s memories involving parents, parental involvement predicted the total number of memories recalled in Age Period 3 only, with women who had more involved parents having more memories about parents. There were no significant predictors in any of the other age periods for the number of memories recalled. In terms of the affective tone of memories in Age Period 1 when they

TABLE 5. Memories Involving Parents: Stepwise Regressions Between Memory Measures and Parent–Child Relationship Predictors

Age period	Memory measure	Parent–child predictor	Reg. Step	ΔF	ΔR^2	Stand. β
Men						
1	Number of memories	Parent involvement	1	12.35***	.20	.449
2	Number of memories	Parent involvement	1	4.46*	.08	.289
3	Number of memories	Parent involvement	1	5.96*	.11	.329
4	% Pos. memories	Neg. mother–child	1	4.19*	.08	–.281
Females						
1	% Pos. memories	Parent involvement	1	6.12*	.18	.426
1	% Pos. memories	Neg. mother–child	2	5.88**	.12	–.342
1	% Neg. memories	Parent involvement	1	10.28**	.26	–.512
3	Number of memories	Parent involvement	1	5.60*	.16	.402
3	% Pos. memories	Neg. father–child	1	12.31**	.30	–.553
3	% Neg. memories	Neg. Father–child	1	12.63***	.31	.558
4	% Neg. memories	Pos. mother–child	1	5.05*	.15	–.385

Note. only significant outcomes are reported.

* $p < .05$. ** $p < .01$. *** $p < .001$.

had been preschool-aged, there were two predictors for the proportion of memories that were positive: the amount of parental involvement, and how negative the mother–daughter relationship was. The more involved the parents and the less negative the mother–daughter relationship, the more affectively positive the memories. For the proportion of memories that were negative in Age Period 1, only parental involvement was a predictor, with more involved parents predicting fewer memories proportionately that were negative. There were no significant predictors for the affective tone of memories from Age Period 2. However, in Age Period 3, when they had been in middle school, having more negative father–daughter relationships were predictive of both proportionately fewer memories that were positive and proportionately more memories that were negative. Finally, in Age Period 4, when they were in high school or university, having a more positive mother–daughter relationship predicted having fewer negative memories.

Memories of friends. The correlations between the memory measures when recalling memories about friends (number and affective tone of memories) and the parent–child relationship measures (quality of relationships and parental involvement in their child’s life) are found in Table 4. For the number of memories involving friends that were recalled by men, there were no significant associations in Age Periods 1–3, but in Age Period 4, having more negative father–son relationships was associated with recalling fewer memories (see Table 4). There were no other significant correlations for the number of memories recalled. In terms of the affective tone of memories that involved friends, there were no significant correlations for Age Period 1. However, the type of relationship with parents was related to the affective tone of memories about friends in all of the older age periods. Having a high-quality relationship with fathers was associated with men recalling proportionately more positive memories of friends in Age Period 2, more positive and fewer negative memories of friends in Age Period 3, and there was a tendency for an association with more positive memories in Age Period 4. High parental involvement was also associated with more positive memories in Age Period 3. There is also a tendency for a positive relationship with mothers to be similarly related to the affective quality of men’s memories in Age Periods 3 and 4 ($ps < .10$).

The pattern of correlations between parent–child relationship variables and memories involving friends was different for women. In terms of the total number of memories that they recalled, there were no significant associations in Age Period 1, although in Age Period 2, having more involved parents was associated with recalling fewer memories about friends and there was a tendency toward the same pattern in Age Period 3. In addition, in Age Period 3, a more negative relationship with mothers was associated with recalling more memories about friends, and there was a tendency toward the same pattern in both Age Periods 2 and 4. In terms of the affective tone of their memories, in both Age Periods 1 and 2 when they were younger, father–daughter relationships that were both more positive

as well as less negative were related to having proportionately fewer negative memories of friends. However, in Age Period 3 when they had been in middle school, the associations are different. Having more negative relationships with mothers was associated with fewer negative and more positive memories about friends; likewise, more negative relationships with fathers was associated with more positive memories about friends in middle school. None of the correlations between parent-child relationship and affective tone of memories was significant for Age Period 4.

Again, stepwise regressions (forward method) were calculated for each of the memory measures (separately by gender and age period), with the parent-child relationship measures as predictors. The regression analyses for which parent-child relationship quality was a significant predictor of a memory measure about recollections involving friends are described in Table 6. For men's memories involving their friends, the regressions on the total number of memories showed that there were no significant predictors for the first three age periods. However, in Age Period 4, when they were in high school or university, negative father-son relationship quality was predictive of the number of memories recalled: the more negative the father-son relationship, the fewer memories of friends. In terms of the affective tone of their memories, in Age Period 2 positive father-son relationships were predictive of recalling proportionately more positive memories about friends. In Age Period 3 when they had been in middle school, positive father-son

TABLE 6. Memories Involving Friends: Stepwise Regressions Between Memory Measures and Parent-Child Relationship Predictors

Age period	Memory measure	Parent-child predictor	Reg. Step	ΔF	ΔR^2	Stand. β
Men						
2	% Pos. memories	Pos. father-child	1	5.34*	.09	.297
3	% Pos. memories	Pos. father-child	1	13.73***	.20	.447
3	% Neg. memories	Pos. father-child	1	5.79*	.09	-.309
4	No. of memories	Neg. father-child	1	6.56*	.11	-.327
Women						
1	% Neg. memories	Pos. father-child	1	5.85*	.14	-.374
2	% Pos. memories	Neg. father-child	1	5.73*	.14	.371
2	% Neg. memories	Pos. father-child	1	7.65**	.17	-.419
2	% Neg. memories	Neg. father-child	2	6.49**	.10	-.320
3	% Pos. memories	Neg. father-child	1	5.74*	.14	.371
3	% Neg. memories	Neg. mother-child	1	5.53*	.13	-.365

Note. only significant outcomes are reported.

* $p < .05$. ** $p < .01$. *** $p < .001$.

relationships were predictive of having proportionately more positive and fewer negative memories of friends. There were no predictors for the affective tone of memories about friends from Age Period 4 for men.

For women's memories involving their friends, stepwise regressions showed that there were no significant parent-child relationship predictors for the number of memories recalled during any age period. In terms of the affective tone of their memories, in Age Period 1 the only significant predictor of the proportion of negative memories about friends was father-daughter relationship quality: A more positive relationship predicted proportionately fewer negative memories of friends. In Age Period 2, father-daughter relationship quality was also important: Having proportionately more positive memories about friends was predicted by a more negative father-daughter relationship. The most important predictor of having proportionately more negative memories about friends was having a less positive father-daughter relationship, but a second predictor was having a less negative father-daughter relationship. In Age Period 3, having a more negative relationship with fathers predicted having proportionately more positive memories of friends, and having a more negative relationship with mothers predicted having proportionately fewer negative memories of friends. There were no significant parent-child relationship predictors for any memory measure in Age Period 4.

Discussion

This study was aimed at exploring the memory fluency and affect of memories of parents and friends as well as the link between the quality of parent-child relationships and the number and emotional tone of memories. In addition, the role of gender in moderating this link was investigated.

Memory Fluency and Affect

In terms of memory fluency (i.e., how many memories were reported), a general trend emerged: parent and friend memories increased in both genders with age, and were particularly numerous during adolescence. This finding supports the reminiscence bump theory (Holmes & Conway, 1999): adolescence is the period of life where experiences (and in particular social experiences) are more readily encoded and this is one of the sources of identity development of a person. As to the affective tone of memories, parent and friend memories followed a different trend of development: both in men and women, from childhood to adolescence, the proportion of negative memories about parents increased whereas the proportion of positive ones decreased. In terms of friend memories, with the increase of age the proportion of positive memories increased whereas the proportion of negative ones remained stable. These data seem to support the discontinuity or compensatory hypothesis: during adolescence, as the quality of parent-adolescent

relationship declines, some supportive functions are transferred from parents to friends (Laursen & Bukowsky, 1997), the latter assuming a compensatory function. Finally, regarding the moderating effect of gender, our data provide further evidence of women's greater skill at recalling social events, because the women in our sample had greater memory fluency than men did for both memories of parents and of friends (see Peterson, Bonechi, et al., 2009). Moreover, women reported proportionately fewer negative memories of parents in comparison to men, whereas no gender differences were observed for memories of friends. If mothers and fathers are more elaborative with daughters than with sons (Fivush et al., 2000) and also engage in more detailed and more relationship-oriented reminiscing activities with daughters than with sons (Buckner & Fivush, 2000), girls are likely not only to maintain more memories but also less negative memories of these experiences. This result also supports data on the closer and more intimate role of girls within the family when they become adults (Silverstein & Bengtson, 1997)

Parent–Child Relationship Quality and Memory

Our premise was that the quality of parent–child relationships could affect memories of different types of social partners, specifically parents and friends, and that this may be moderated by the respondent's age at the time of the remembered events. Our findings confirmed our expectations. The influence of the quality of parent–child relationships was reflected not only in the total number of memories recalled, but also in their emotional tone. However, these influences seem to be moderated by whether respondents are recalling events that involved their parents or their friends. They also seem to be moderated by gender.

Memories of parents. The quality of parent–child relationships was a significant predictor of the number and affective tone of memories recalled by respondents in several regression analyses, and in all cases, the findings were consistent with our hypothesis that more positive parent–child relationships would predict more numerous and more positive memories about parents. For men, high parental involvement predicted the recollection of more memories for all but the oldest age period; likewise, women with highly involved parents recalled more memories about parents from their middle (or junior high) years. Although there was only one association between the affective tone of men's memories and parent–child relationship quality, there were several for women. Again, all were consistent with the prediction that the affective tone of parent–child relationships would predict the affective tone of the memories that young adults could retrieve about their parents.

These findings highlight the ongoing influence of parent–child relationships on memories during several periods of life, not only during the preschool years. These results can be interpreted as consistent with those studies that found that

parents who have good relationships with their sons and daughters, particularly parents who are highly involved in their lives, discuss past events frequently (Farrant & Reese, 2000; Newcombe & Reese, 2004) and use a more positive communication style during parent-child interactions (Jackson et al., 1998; Ryan, 1993). Furthermore, researchers have found that parent-child talk facilitates the recall of details about events and experiences (Boland et al., 2003; McGuigan & Salmon, 2004). Thus, these positive parental behaviors may help daughters and sons maintain more accessible and positive memories of their parents. As for women, our finding that the quality of parent-child relationships especially affects the emotional tone of memories may be related to mothers' greater use of emotions words with girls than with boys (Fivush et al., 2006).

Memories of friends. In general, the quality of parent-child relationships had an effect on the quality of young adults' memories of friends. Specifically, parents who were warm and involved in the lives of their children appeared to promote better memories of friends. There were, however, some gender differences. Data from the male sample supported the hypothesis of a substantial consistency between different types of close relationships. Specifically, this hypothesis posits that those young adults who have warm, more involved, and supportive parents are motivated to search for intimate relationships with friends and consequently they have supportive friendships (Cui et al., 2002; MacDonald, 1992). Presumably, children with warm and supportive parents have learned behaviors that reflect supportiveness and intimacy, and this in turn increases the likelihood of developing satisfying relations with friends. However, in our data, only the quality of father-son relationships was predictive of the sons' memories of friends: men who had warm relationships with their fathers had more positive memories of friends when recalling their elementary and middle school years, and more numerous memories of friends when recalling their high school or university years. The importance of father-son relationships relative to mother-son relationships in our data supports prior research suggesting that father-son experiences are more central in boys' friendships than are mother-son experiences, and that men who are accepted by their fathers establish more intimacy with their best friends (Updegraff, Madden-Derbich, Estrada, Sales, & Leonard, 2002). In addition, the fact that the influence of father-son relationship quality on memory was not found for the preschool age period but only for the three periods of life occurring after children entered the highly peer-oriented school system is consistent with those studies showing that the importance of friendships increases as children get older (Crosnoe, 2000; Laursen & Bukowsky, 1997). In contrast to the data on men, the data on women's memories of friends was more mixed. For memories derived from the first age period, when they had been preschoolers, the only significant predictor for the proportion of negative memories was how positive their relationship was to their father. Those with more positive father-daughter relationships had fewer negative memories of friends. This is supportive of the consistency hypothesis. However,

when they had been in elementary school, the second predictor, after the variance related to positive father–daughter relationship measures was removed, was how negative the father–daughter relationship was. Specifically, if the father–daughter relationship was more negative, women had fewer negative memories of friends, a finding that does not fit with the consistency hypothesis. In addition, the proportion of positive memories from the elementary school years was predicted by having a more negative father–daughter relationship, another finding that does not support the consistency hypothesis. In terms of memories from Age Period 3, when they had been in middle (or junior high) school, a more negative mother–daughter relationship predicted having proportionately fewer negative memories of friends. As well, a negative father–daughter relationship predicted having proportionately more positive memories. Both these results are supportive of the compensatory hypothesis.

More specifically, during the preschool years women seem to transfer to memories involving friends the same affective tone that characterizes their relationship with their parents, just as men do. However, starting from elementary school age and increasingly as they move through adolescence, their relation with friends seems to assume a compensative meaning: Girls who have negative interactions with parents seem to seek support from other social resources such as friends. Consistent with this, several studies have shown that adolescent girls have more intimate friendships than boys do and their friendships are characterized by highly supportive behavior (Cui et al., 2002). Furthermore, there is evidence that women tend to cope with interpersonal stressors such as conflicts with parents or siblings by employing more social support than men do (de Anda et al., 2000; Hampel, 2007; Hampel & Peterman, 2005), whereas men use more emotion-distraction strategies such as minimization or recreation when they have to cope with common stressors (Compas, Orosan & Grant, 1993; Hampel; Rose & Rudolph, 2006).

Also surprising was the relative importance of fathers for the memories of friends. In terms of the memories of parents, the joint parental factor of parent involvement was particularly important, especially for men, but when relationships were assessed for mothers versus fathers separately, both were equally likely to play a role in the affective tone of memories, particularly for women. However, all of the significant correlations and regression predictors for men's memories of friends as well as most of them for women's memories were the quality of their relationship with their father. It is only in Age Period 3, when women were in middle school, that the quality of their relationship with their mothers played a role.

A potential explanation for the influence of the father on memories of friends is the assumption that the father plays a mediating role between the child and the outside world, an assumption that is consistent with the traditional literature on fatherhood (Cabrera, Tamis-LeMonda, Bradley, Hofferth, & Lamb, 2000; Nord, Brimhall, & West, 1997; Parke & Buriel, 1998). For sons, supportive fathers would

help them initiate relationships with social partners outside the family. However, this mediating role seems to be more complex for daughters, even though fathers are still central. In essence, the mediating role of the father is qualified by his daughter's age, her skill in initiating and maintaining social relationships outside the family, and the nature of the father–daughter bond. When the father–daughter relationship is negative, this seems to push daughters to seek an outside source of support, particularly during the potentially turbulent middle school years.

Limitations

A limitation of this research is the nature of our parent–child relationship data. It is acknowledged that relationships are constantly evolving and the type of relationships that participants have at the present time with their parents may not be representative of the earlier situation in their childhood (Jackson et al., 1998). However, scores for the Network of Relationships Inventory and Adolescents' Report of Parental Monitoring measure the present relationship with parents; as well, our memory task assesses the participants' present memories of events that occurred with parents and friends in the past. Therefore, it may well be that the quality of an individual's present relationships with parents plays an important role in organizing his or her past and coloring perceptions of events occurring at that time. This supposition is consistent with the proposal by life story proponents (Habermas & Bluck, 2000; Main et al., 1985; McAdams, 2001) that an individual's perception of his or her past relationships is particularly influential when developing a life story. These life stories in turn may then influence an individual's ability to recall the early years of his or her life.

However, it is also possible that the memories that are more accessible are those that are meaningful and that fit with the goals of the self, not only at the time of retrieval but at the time the events occurred (Conway & Holmes, 2004; Conway & Pleydell-Pearce, 2000). That is, “highly accessible autobiographical memories will be those that had high self-relevance when originally encoded, and the most accessible will be those that retain this high level of self-relevance at retrieval” (Conway & Holmes, 2004, 462). We believe that a time-limited task such as the one we employed fosters our participants' recall of just those memories that were more accessible in each age period. This is consistent with Conway and Holmes's argument that the most accessible memories from a particular period of an individual's life are best measured by providing participants with a limited amount of retrieval time. That is, it is the first few memories that are most significant, and an optimal way to elicit them is through a time-limited recall task.

Another issue is the number of correlations and regressions, which increases the possibility of Type I errors. However, the analyses were planned a priori and theory driven: they tested alternative theoretical models of how parent–child relationship variables could be related to memory. Nevertheless, replication is needed.

Future directions. A limitation of the memory-fluency task is that respondents are asked to provide only a very short summary of each memory before moving on to the next memory. However, such an approach may hide a number of important aspects of recalled memories, aspects that may only become apparent with a more detailed analysis of memory content. Thus, a future direction of research is to explore the content of memories by integrating a time-limited recall task with narrative methods. Thus, after engaging in a memory fluency task, participants would be asked to narrate the memories they recalled in detail. Such narrative elaboration would permit participants to identify the roles played by their mothers and fathers separately. As well, it would permit a more delineated understanding of possible parental influences on their memories. For example, when Arnold, Pratt, and Hicks (2004) asked adolescents about personal values, the adolescents often provided memories that reflected parental influences on the shaping of those values. Thus, a narrative task that elicits detailed information about memories may provide the opportunity to explore the various roles played by each parent in the memories of adults. In addition, a number of memories recalled by participants in the present study contained negative affect, but negative affect may encompass a variety of emotions such as anger, anxiety, and sadness. Memories that involve different types of affect may differ; as well, narratives about such negative experiences may incorporate a participant's understanding of how such negative experiences led to subsequent constructive changes in understanding, behavior, or coping. In short, a combination of a time-limited task with a narrative task that elicits memory detail would be a fruitful future direction for research.

Summary. The quality of parent-child relationships was related to how many memories men recalled about their parents and the affective tone of parent memories recalled by women. Thus, as predicted, those memories of parents that were readily accessible from different periods of life seemed to be influenced by the quality of parent-child relationships. However, memories about friends could have been related to parent-child relationship quality in two ways. According to the consistency hypothesis, children with warm parent-child relationships have warm friendship relationships, which should result in memories of friends that are more affectively positive. This pattern fits the memories recalled by men about their friends. In contrast, according to the compensatory hypothesis, it is children with poor parent-child relationships who may have more positive relationships with friends, and thus affectively positive memories of friends should be associated with poorer quality parent-child relationships. Although women's memories from the preschool period fit the consistency model, their memories of friends from older age periods were more consistent with the compensatory model. Furthermore, it is the quality of the father-child relationship that seems to be particularly relevant in terms of the affective tone of friend memories. Considerable prior research has shown that the quality of children's relationships with their parents affects a host of socioemotional variables; to our knowledge, this study is the first to suggest

that parent–child relationship quality can have a pervasive influence on memories of other people besides the parents themselves.

ACKNOWLEDGMENTS

Preparation of this manuscript was supported by a grant from the Fondazione del Monte dei Paschi di Siena for the years 2008—n.15113-34395- and 2009—n.15113-37877-.

AUTHOR NOTES

Franca Tani is a full professor of Developmental Psychology in the Department of Psychology at the University of Florence. She is also an associate member of the International Psychoanalytical Association by virtue of associate membership in the Italian Psychoanalytical Association. Her main research interests concern the development of social competence with particular reference to networks of close relationships across lifespan and to risk and protection factors in the intergenerational transmission. **Alice Bonechi** is a doctoral student in Psychology at the University of Florence. Her research interests focus on various aspects of adolescent and adult development including parental monitoring, friendship, and, particularly, psychological abuse within romantic relationships. **Carole Peterson** received her undergraduate degree in Psychology from the University of Washington and her Ph.D. in Child Psychology from the University of Minnesota. She then moved to Canada in order to take a position as a professor of Psychology at Memorial University of Newfoundland where she has lived for many years. **Andrea Smorti** is a full professor of Developmental Psychology in the Department of Psychology and dean of the Faculty of Psychology at the University of Florence. He is editor of the *Giornale di Psicologia dello Sviluppo/Journal of Developmental Psychology* and co-editor of *Psicologia Culturale*. His main research interests concern autobiographical memory and narratives of painful experiences.

REFERENCES

- Adams, S., Kuebli, J., Boyle, P., & Fivush, R. (1995). Gender differences in parent–child conversations about past emotions: A longitudinal investigation. *Sex Roles, 33*, 309–323.
- Arnold, M. L., Pratt, M. W., & Hicks, C. (2004). Adolescents' Representations of parents' voices in family stories: Value lessons, personal adjustment, and identity development. In M. W. Pratt & B. H. Fiese (Eds.), *Family stories and the life course: Across time and generations* (pp. 163–186). Mahwah, NJ: Erlbaum.
- Barnes, H., & Olson, D. H. (1982). Parent-adolescent communication. In D. H. Olson, H. I. McCubbin, H. Barnes, A. Larsen, M. Muxen, & M. Wilson (Eds.), *Family inventories* (pp. 55–70). Minneapolis, MN: University of Minnesota.
- Bauer, P., Steenes, L., & Haight, J. (2003). Representation of the inner self in autobiography: Women's and men's use of internal states language in personal narratives. *Memory, 11*, 27–42.

- Bohanek, J. G., Marin, K. A., Fivush, R., & Duke, M. P. (2006). Family narrative interaction and children's sense of self. *Family Process, 45*, 39–54.
- Boland, A. M., Haden, C. A., & Ornstein, P. A. (2003). Boosting children's memory by training mothers in the use of an elaborative conversational style as an event unfolds. *Journal of Cognition & Development, 4*, 39–65.
- Bretherton, I., & Mulholland, K. A. (1999). Internal working models in attachment relations: A construct revisited. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 89–111). New York: Guilford.
- Brown, B. (2004). Adolescents' relationships with peers. In R. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (2nd ed.; pp. 363–394). New York: Wiley.
- Buckner, J. P., & Fivush, R. (1998). Gender and self in children's autobiographical narratives. *Applied Cognitive Psychology, 12*, 407–429.
- Buckner, J. P., & Fivush, R. (2000). Gendered themes in reminiscing. *Memory, 8*, 401–412.
- Cabrera, N. J., Tamis-LeMonda, C. S., Bradley, R. H., Hofferth, S., & Lamb, M. E. (2000). Fatherhood in the twenty-first century. *Child Development, 71*, 127–136.
- Capaldi, D. M., & Patterson, G. R. (1989). *Psychometric properties of fourteen latent constructs from the Oregon Youth Study*. New York: Springer-Verlag.
- Caprara, G. V., Pastorelli, C., Regalia, C., Scabini, E., & Bandura, A. (2005). Impact of adolescents' filial self-efficacy on quality of family functioning and satisfaction. *Journal of Research on Adolescence, 15*, 71–97.
- Collins, N. L., & Read, S. J. (1994). Cognitive representations of attachment: The structure and function of working models. In K. Bartholomew (Ed.), *Attachment processes in adulthood* (pp. 53–90). Bristol, PA: Jessica Kingsley.
- Compas, B. E., Orosan, P. G., & Grant, K. E. (1993). Adolescent stress and coping: Implications for psychopathology during adolescence. *Journal of Adolescence, 16*, 331–349.
- Connolly, J., & Johnson, A. M. (1996). Adolescents' romantic relationships and the structure and quality of their close interpersonal ties. *Personal Relationships, 3*, 185–195.
- Conway, M. A. (2005). Memory and the self. *Journal of Memory and Language, 53*, 594–628.
- Conway M. A., & Holmes A. (2004). Psychosocial stages and the accessibility of autobiographical memories across the life cycle. *Journal of Personality, 72*, 461–480.
- Conway, M. A., & Pleydell-Pearce, C. W. (2000). The construction of autobiographical memories in the self-memory system. *Psychological Bulletin, 128*, 250–277.
- Crosnoe, R. (2000). Friendships in childhood and adolescence: The life course and new directions. *Social Psychology Quarterly, 63*, 377–391.
- Crowell, J., & Waters, E. (2006). Attachment representations, secure-base behavior, and the evolution of adult relationships. In K. E. Grossmann, K. Grossmann, & E. Waters (Eds.), *Attachment from infancy to adulthood: The major longitudinal studies* (pp. 223–244). New York: Guilford Press.
- Cui, M., Conger, R. D., Bryant, C. M., & Elder, G. H. (2002). Parental behavior and the quality of adolescent friendships: A social-contextual perspective. *Journal of Marriage and the Family, 64*, 676–689.
- De Anda, D., Baroni, S., Boskin, L., Buchwald, L., Morgan, J., Ow, J., et al. (2000). Stress, stressors and coping strategies among high school students. *Children and Youth Services Review, 22*, 441–463.
- Elnick, A. B., Margrett, J. A., Fitzgerald, J. M., & Labouvie-Vief, G. (1999). Benchmark memories in adulthood: Central domains and predictors of their frequency. *Journal of Adult Development, 6*, 45–59.
- Erikson, E. H. (1959). *Identity and the life cycle*. New York: W. W. Norton.
- Erikson, E. H. (1997). *The life cycle completed*. New York: W. W. Norton.

- Farrant, K., & Reese, E. (2000). Maternal style and children's participation in reminiscing: Stepping stones in children's autobiographical memory development. *Journal of Cognition and Development, 1*, 193–225.
- Farrant, K., & Reese, E. (2001). Attachment security and early mother–child reminiscing: A developmental exploration. Unpublished manuscript.
- Fivush, R. (1988). The functions of event memory: Some comments on Nelson and Barsalou. In U. Neisser & E. Winograd (Eds.), *Remembering reconsidered: Traditional and ecological approaches to the study of memory* (pp. 277–282). New York: Cambridge University Press.
- Fivush, R., Berlin, L., 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: A Journal of Research, 42*, 233–253.
- Fivush, R., & Fromhoff, F. (1988). Style and structure in mother–child conversations about the past. *Discourse Processes, 11*, 337–355.
- Fivush, R., Haden, C. A., & Reese, E. (2006). Elaborating on elaborations: Role of maternal reminiscing style in cognitive and socioemotional development. *Child Development, 77*, 1568–1588.
- Fivush, R., & Kuebli, J. (1997). Making everyday events emotional: The construal of emotion in parent–child conversations about the past. In N. L. Stein, P. A. Ornstein, B. Tversky, & C. Brainerd (Eds.), *Memory for everyday and emotional events* (pp. 239–266). Mahwah, NJ: Erlbaum.
- Fivush, R., & Reese, E. (2002). Reminiscing and relating: the development of parent–child talk about the past. In J. D. Webster & B. K. Haight (Eds.), *Critical advances in reminiscence: Theoretical, empirical, and clinical perspectives* (pp. 109–122). New York: Springer.
- Furman, W. (1996). The measurement of friendship perceptions: Conceptual and methodological issues. In W. M. Bukowski, A. F. Newcomb & W. W. Hartup: *The company they keep: Friendship in childhood and adolescence* (pp. 41–65). Cambridge New York: Cambridge University Press.
- Furman, W., & Buhrmester, D. (1985). Children's perceptions of the personal relationship in their social networks. *Developmental Psychology, 21*, 1016–1024.
- Guarnieri, S., & Tani, F. (in press). Adattamento italiano del *Network of Relationships Inventory* di Furman e Buhrmester (Italian adaptation of *Network of Relationships Inventory* by Furman e Buhrmester). *Giornale Italiano di Psicologia*
- Habermas, T., & Bluck, S. (2000). Getting a life: The emergence of the life story in adolescence. *Psychological Bulletin, 126*, 748–769.
- Haden, C. A., & Fivush, R. (1996). Contextual variation in maternal conversational styles. *Merrill-Palmer Quarterly, 42*, 200–227.
- 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.
- Hampel, P. (2007). Brief report: Coping among Austrian children and adolescents. *Journal of Adolescence, 30*, 885–890.
- Hampel, P., & Peterman, F. (2006). Perceived stress, coping, and adjustment in adolescents. *Journal of Adolescence, 34*, 73–83.
- Harter, S. (1999). *The construction of the self: A developmental perspective*. New York: Guilford.
- Hayne, H., & MacDonald, S. (2003). The socialization of autobiographical memory in children and adults: The roles of culture and gender. In R. Fivush & C. Haden (Eds.),

- Autobiographical memory and the construction of a narrative self: Developmental and cultural perspectives* (pp. 99–120). London: Erlbaum.
- Hazan, C., & Shaver P. R. (1994). Attachment as an organizational framework for research on close relationships. *Psychological Inquiry*, 5, 1–22.
- Hazan C., & Zeifman, D. (1994). Sex and the psychological tether. *Advances in Personal Relationships*, 5, 151–177.
- Hirsch, B. J., & DuBois, D. L. (1992). The relation of peer social support and psychological symptomatology during the transition to junior high school: A two-year longitudinal analysis. *American Journal of Community Psychology*, 20, 333–347.
- Holmes, A., & Conway, M. A. (1999). Generation identity and the reminiscence bump: Memories for public and private events. *Journal of Adult Development*, 6, 21–34.
- Honess, T., Charman, E., Zani, B., Cicognani, E., Xerri, M., Jackson, A., et al. (1997). Conflict between parents and adolescents: Variation by family constitution. *British Journal of Developmental Psychology*, 15, 367–385.
- Jackson, S., Bijkstra, J., Oostra, L., & Bosma, H. (1998). Adolescents' perception of communication with parents to specific aspect of relationships with parents and personal development. *Journal of Adolescence*, 21, 305–322.
- Kerr, M., & Stattin, H. (2000). What parents know, how they know it, and several forms of adolescent adjustment: Further support for a reinterpretation of monitoring. *Developmental Psychology*, 36, 366–380.
- Laursen, B., & Bukowski, W. M. (1997). A developmental guide to the organisation of close relationships. *International Journal of Behavioral Development*, 21, 747–770.
- Lerner, R. M., Lerner, J. V., von Eye, A., Ostrom, C. W., Nitz, K., Talwar-Soni, R., et al. (1996). Continuity and discontinuity across the transition of early adolescence: A developmental contextual perspective. In J. A. Graber, J. Brooks-Gunn, & A. C. Petersen (Eds.), *Transitions through adolescence* (pp. 3–22). Mahwah, NJ: Erlbaum.
- MacDonald, K. B. (1992). Warmth as a developmental construct: An evolutionary analysis. *Child Development*, 63, 753–773.
- MacDonald, S., Uesiliana, K., & Hayne, H. (2000). Cross-cultural and gender differences in childhood amnesia. *Memory*, 8, 365–376.
- Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. In I. Bretherton & E. Waters (Eds.), *Growing points in attachment theory and research* (pp. 66–104). *Monographs of the Society for Research in Child Development*, 50(1–2, Serial No. 209), 66–104.
- McAdams D. P. (1993). *The stories we live by: Personal myths and the making of the self*. New York: William C. Morrow and Co.
- McAdams, D. P. (2001). The psychology of life stories. *Review of General Psychology*, 5(2), 100–122.
- McAdams, D. P., Bauer, J. J., Sakaeda, A. R., Anyidoho, A. N., Machado, M. A., Mgrino-Failla, K., et al. (2006). Continuity and change in the life story: a longitudinal study of autobiographical memories in emerging adulthood. *Journal of Personality*, 74, 1371–1400.
- McCabe, A., Peterson, C., & Connors, D. M. (2006). Attachment security and narrative elaboration. *International Journal of Behavioural Development*, 30(5), 8–19.
- McGue, M., Elkins, I., Walden, B., & Iacono, W. G. (2005). Perceptions of the parent–adolescent relationship: a longitudinal investigation. *Developmental Psychology*, 41, 971–984.
- McGuigan, F., & Salmon, K. (2004). The time to talk: The influence of the timing of adult-child talk on children's event memory. *Child Development*, 75, 669–686.
- Mullen, M. K. (1994). Earliest recollections of childhood: A demographic analysis. *Cognition*, 52, 55–79.

- Nelson, K., & Fivush, R. (2004). The emergence of autobiographical memory: A social cultural developmental theory. *Psychological Review*, *111*, 486–511.
- Newcombe, R., & Reese, E. (2004). Evaluations and orientations in mother–child narratives as a function of attachment security: A longitudinal investigation. *International Journal of Behavioral Development*, *28*, 230–245.
- Niedzwinska, A. (2003). Gender differences in vivid memories. *Sex Roles*, *49*, 331–321.
- Nord, C. W., Brimhall, D., & West, J. (1997). *Fathers' involvement in their children's schools*. NCES 98-091. Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Parke, R. D., & Buriel, R. (1998). Socialization in the family: Ethnic and ecological perspectives. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality Development* (5th ed., pp. 463–552). New York: Wiley.
- Peterson, C., Bonechi, A., Smorti, A., & Tani, F. (in press). A distant mirror: Memories of parents and friends across childhood and adolescence. *British Journal of Psychology*.
- Peterson, C., Grant V. V., & Boland, L. D. (2005). Childhood amnesia in children and adolescents: their earliest memories. *Memory*, *13*, 622–637.
- Peterson, C., & McCabe, A. (1983). *Developmental psycholinguistics: Three ways of looking at a child's narrative*. New York: Plenum.
- Peterson, C., & McCabe, A. (2004). Echoing our parents: Parental influences on children's narration. In M. W. Pratt & B. E. Fiese (Eds.), *Family stories and the life course: Across time and generations* (pp. 27–54). Mahwah, NJ: Erlbaum.
- Peterson, C., Noel, M., Kippenhuck, L., Harmundal, L., & Vincent, C. (2009). Early memories of children and adults: Implications for infantile amnesia. *Cognitive Sciences* *4*(2), 65–90.
- Peterson, C., Smorti, A., & Tani, F. (2008). Parental influences on earliest memories. *Memory*, *16*, 569–578.
- Peterson, C., Wang, Q., & Hou, Y. (2009). “When I was little”: Childhood recollections in Chinese and European Canadian grade-school children. *Child Development*, *80*, 506–518.
- Reese, E., & Brown, N. (2000). Reminiscing and recounting in the preschool years. *Applied Cognitive Psychology*, *14*, 1–17.
- Reese, E., & Fivush, R. (1993). Parental styles of talking about the past. *Developmental Psychology*, *29*, 596–606.
- Rose, A. J., & Rudolph, K. D. (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological Bulletin*, *132*, 98–131.
- Rubin, D. C., Schrauf, R. W., & Greenberg D. L. (2004). Stability in autobiographical memories. *Memory*, *12*, 715–721.
- Rubin, D. C., & Schulkind, M. D. (1997). The distribution of autobiographical memories across the lifespan. *Memory & Cognition*, *25*, 859–866.
- Ryan, R. M. (1993). Control and information in the interpersonal sphere: An extension of cognitive evaluation theory. *Journal of Personality and Social Psychology*, *43*, 450–461.
- Scharfe, E., & Bartholomew, K. (1994). Reliability and stability of adult attachment patterns. *Personal Relationships*, *1*, 23–43.
- Silverstein, M., & Bengtson, V. L. (1997). Intergenerational solidarity and the structure of Adult-Child Parent relationship in American families. *American Journal of Sociology*, *103*, 429–460.
- Smetana, J. G., Campione-Barr, N., & Metzger, A. (2006). Adolescent development in interpersonal and societal contexts. *Annual Review of Psychology*, *57*, 255–284.

- Stattin, H., & Kerr, M. (2001). Parental monitoring: A reinterpretation. *Child Development, 71*, 1072–1085.
- Sullivan, H. S. (1953). *The interpersonal theory of psychiatry*. New York: W. W. Norton.
- Tani, F., & Guarnieri, S. (2010). Continuità e discontinuità dell'attaccamento e qualità delle relazioni con i genitori, gli amici e il partner (Continuity vs. discontinuity of attachment and quality of the relationships with parents, friends and romantic partners). Manuscript in preparation.
- Thompson, R. A. (2000). The legacy of early attachments. *Child Development, 71*, 145–152.
- Thorne, A. (1995). Developmental truths in memories of childhood and adolescence. *Journal of Personality, 63*, 139–163.
- Updegraff, K. A., Madden-Derdich, D. A., Estrada, A. U., Sales, L. J., & Leonard, S. A. (2002). Young adolescents' experiences with parents and friends: Exploring the connection. *Family Relations, 51*, 72–80.
- Wang, Q., Conway, M. A., & Hou, Y. (2004). Infantile amnesia: A cross-cultural investigation. *Cognitive Sciences, 1*, 123–135.
- Wareham, P., & Salmon, K. (2006). Mother–child reminiscing about everyday experiences: Implications for psychological interventions in the preschool years. *Clinical Psychology Review, 26*, 535–554.
- Youngblade, L. M., & Belsky, S. (1992). Parent–child antecedents of 5-year-olds' close friendships: A longitudinal analysis. *Developmental Psychology, 28*, 700–713.

Original manuscript received April 30, 2009

Final version accepted May 4, 2010