Mothers, Fathers, Daughters, Sons:  
Gender Differences in  
Autobiographical Reminiscing

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As adults, we tell stories about past happenings in our lives for a variety of reasons: to entertain others with our triumphs and disappointments, to inform others of our version of events when the facts are in dispute, and to recreate with others the emotional bonds of a shared history. Recounting past events is primarily a shared activity and serves important social functions (see also Pillemer & White, 1989; Middleton & Edwards, 1990; Nelson, 1993; Fivush, Haden, & Reese, in press).

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Importantly, men and women exhibit qualitative and quantitative differences in their reported autobiographical memories. When asked to recall memories from early childhood, women recall a greater number of such memories and date those memories back to an earlier age than do men (Cowan & Davidson, 1984; Friedman & Pines, 1991; Mullen, 1994). Women's stories of the past may also be richer than men's. Friedman and Pines found that women wrote longer accounts of their early memories than did men, and Ross and Holmberg (1990), in a study of married couples, showed that women's descriptions of shared memories were judged by independent raters to be more accurate and more vivid than men's accounts. Together, these findings suggest that women produce longer and more detailed accounts of past events, whether shared or unshared, from childhood or from adulthood, when asked to reflect on such experiences than do men.

Ross and Holmberg (1990) concluded that these gender differences in reminiscing may reflect a greater value that women place on the activity of talking about the past. These results seem related to recent claims by Tannen (1990) and Gilligan (1982), among others, that men and women have a different "voice" in a number of arenas, including different conversational styles and moral reasoning styles. Specifically, women may have a more affiliative than instrumental style of conversing and reasoning than men, although these gender differences vary depending on context and task (e.g., Galotti, Kozberg, & Farmer, 1991; Johnson, 1994). An intriguing possibility, then, is that gender differences in reminiscing stem from the inherently linguistic and communicative nature of the activity. Even if men and women have similar experiences, they may choose to talk about different aspects of those experiences in greater detail, or structure their stories of the past in different ways.

Given that these differences in reminiscing occur even for memories from early childhood, at what point in development does this difference between females and males arise, and how might it come about? One possibility is that parents socialize girls and boys into different styles of reminiscing. Parents and children begin talking about the past very early in development (e.g., Sachs, 1983; Hudson, 1990) and these discussions are pervasive in early parent–child interactions in a number of cultures (Eisenberg, 1985; Engel, 1986; Miller & Sperry, 1988; Miller, Potts, Fung, Hoogstra, & Mintz, 1990). The study of mothers' and fathers'
conversations about the past with sons and daughters across the preschool period may thus help illuminate various aspects of gender differences in reminiscing.

First, in light of the research demonstrating gender differences in adults, we can assess whether mothers and fathers differ in their styles of talking about the past. Do men and women retain their differences in reminiscing when speaking about the past with their young children? Second, we can address questions regarding the early socialization of memories and investigate parents' different styles of conversing with their daughters and sons. Are parents socializing daughters to reminisce about past events in a richer manner than sons? Finally, we can examine evidence for possible early gender differences in reminiscing by contrasting girls' and boys' remembering; girls and boys may differ in the amount of information they recall.

Only one study to date has examined mothers' and fathers' styles of talking about the past with daughters and sons. Reese and Fivush (1993) found that parents displayed a great deal of variability in the degree to which they elaborated on past events with their children aged 3;4. The following excerpts from those conversations help illustrate the overall tone of these highly elaborative and less elaborative parental styles of conversing about the past. The first two examples illustrate a low-elaborative or repetitive style; Examples 3 and 4, a high elaborative style.

Example 1: Low Elaborative

Father: Do you remember who went with us to the beach?
Son: Wh-
Father: Who went with us to the beach?
Son: But we didn't swim too much.
Father: Mmm hmmm. But we went to the beach. Do you remember who came with us?
Son: We go. We take food with us. We take food.
Father: Yeah.
Son: And a knife. And juice.
Father: Uh huh. How did we get there?
Son: ( )
Father: Gosh. How did we get to the beach? Did we drive?
Son: Yeah.
Father: Did you like it?
Son: Yes.
Example 2: Low Elaborative

Father: So what did you and Nick, what'd you all do at the beach?
Son: Um, we played sand castles.
Father: Built sand castles, what else did you do?
Son: Um, baby was coming here. ((baby brother))
Father: Um hum.
Son: And he was coming.
Father: Mommy was pregnant, that's right.
Son: He was, he was ( ).
Father: Did you all do something else?
Son: I wanna go in there.
Father: That has to do with a net, remember?

The first two examples reveal the primary hallmark of a parent's low elaborative style: probing the child for a specific piece of information. For instance, in the first example the parent is most interested in getting the child to say with whom they went to the beach. The child responds with a fairly detailed answer about the food they took with them; instead of expanding on this theme, the parent switches topics, after which the child starts responding only minimally. In the second example, also about a trip to the beach, the child responds to the father's questions about their activities but is more interested in talking about the impending arrival of a baby brother. Once again, the parent does not expand on the child's memory of the event but instead returns to his original issue of interest, their activities at the beach. The child quickly loses interest at this point and starts talking about going to see the experimenter in the next room.

Example 3: High Elaborative

Father: What was fun about the zoo?
Daughter: Uh. ((pause)) I know what I liked.
Father: What did you like?
Daughter: I liked the grillas.
Father: The gorillas?
Daughter: Yeah.
Father: Yeah, we saw some neat gorillas, didn't we?
Daughter: What do you like?
Father: Well gee I may—you know that was one of my favorite things. You know, what was, what kind, what kind of gorillas did you like the best?
Daughter: Ummmm. The black ones.
Father: The black ones. And, didn’t they have some different size gorillas?
Daughter: I didn’t. ( )
Father: But didn’t they have any little baabies?
Daughter: YEAH!
Father: What, did they have little baby gorillas?
Daughter: Yes, I like those. I like those.
Father: What were they doin’?
Daughter: They were um, um, eating.
Father: Eating?

Example 4: High Elaborative

Father: Do you remember when we went to the seashore with Clifford, and we went for that walk in the woods?
Daughter: Yeah.
Father: Yeah? Um, what do you remember about that?
Daughter: I remember ( ) Clifford.
Father: Yeah, what was Clifford like? What did he look like?
Daughter: Um, I don’t know.
Father: Did he have a carrot for a nose?
Daughter: No.
Father: Did he have a beard like me?
Daughter: Yes.
Father: He’s a pretty funny guy, isn’t he?

The latter two examples stand in stark contrast to the first two. Note that the children are providing about the same rate of memory information as in the first two excerpts. The most striking difference is in the way parents respond to the children’s memories. Parents with high elaborative style follow in and expand on what was most interesting about the event to the child. The end result is that the conversation seems more like a dialogue than like an interrogation on the part of the parent. When parents follow in on children’s admittedly minimal responding in this manner, the conversations last longer, and in the process the parent asks a greater number of elaborative questions rather than repeating previous questions which the child is not interested in answering, and which quickly terminate talk about the past event.

Interestingly, in this first study of parental elaboration and children’s memory, the results revealed few differences between mothers and fathers in their level of elaboration with their children. Instead, the primary differences were a function of gender of child: Parents were on
the whole more elaborative with daughters than with sons. The excerpts
discussed earlier focus on parents' differential strategies to similar types
of child response patterns. For a variety of reasons, though, we cannot
claim from this initial study that parents' greater elaboration with
daughters was solely a function of parents' differing gender expectations
for daughters and sons. It was also the case in these conversations with
children aged 3;4 that girls reported greater amounts of memory
information than boys. Therefore, parents' greater elaboration with
daughters could be partially or wholly a function of girls' greater
participation in the conversations. In other words, it may be that
daughters elicit a more elaborative style of responding from their
parents than do sons. Because we collected conversations from only one
point in time, we could not fully explore the directionality (parent-to-
child or child-to-parent) of the elaboration effect. With conversations
from more than one point in time and with a variety of partners, we can
assess consistency in children's recall over time and across conversa-
tional partners, and thus can begin to address the question of whether
parents impose a more elaborative style on daughters or if daughters
somehow evoke this style from parents (see Bell & Harper, 1977; Russell
& Russell, 1992, for further discussion of bidirectionality issues).
The present study is a longitudinal examination of these same
children as they reminisce with their mothers and fathers at age 5;10. In
looking at parents' contributions to the conversations, the first question
for this longitudinal investigation regards differences between mothers
and fathers in the way they continue to structure conversations with
their children about the past. Although mothers and fathers did not
differ from each other in their reminiscing style with their children at age
3;4, it may be the case that any differences between mothers and fathers
would be more likely to emerge as children grow older and parents are
able to more closely approximate their manner of reminiscing with other
adults. Second, even if mothers and fathers retain their similar styles of
talking about the past over the preschool period, parents may continue
to be more elaborative with daughters than with sons aged 5;10.
Previous research indicates an increase in parents' differential treatment
of daughters and sons as children grow older (e.g., Block, 1979).
Third, we can examine consistency in children's recall over time.
Girls may continue to recall more than boys in conversations with their
parents between the ages of 3;6 and 5;10. Children may also exhibit
differences in recall as a function of whether they are talking to mothers,
fathers, or to someone outside the family sphere. Thus, at each of the two time points, children also discussed memories with a relatively unfamiliar experimenter who provided children with only open-ended prompts. Contrasting children's recall in parent-child conversations with children's recall in independent past narratives provides an even fuller picture of the origins of gender differences in reminiscing. Even if girls experience and respond to a more vivid and detailed style of reminiscing with their parents than do boys, this gender difference may or may not generalize to children's independent recall efforts with less familiar conversational partners. Moreover, through examining children's independent recall with an experimenter at both the early and later time points, we can begin to untangle the relationship between parental elaboration and gender differences in children's recall. If girls independently recall more than boys only at the later time point, it would suggest that parents' early elaborative style with daughters is facilitating girls' later recall with other partners.

Finally, in elucidating possible gender differences in reminiscing among mothers and fathers, daughters and sons, we begin to explore bidirectional influences operating in these conversations. Parents may socialize girls and boys into different styles of reminiscing, but in what ways do children themselves contribute to these emerging gender differences? Through microanalysis of the memory conversations at each time point, we can start to address whether girls and boys respond differently to the same strategies by parents, and whether parents respond differently to similar participation levels of boys and girls.

Thus, the major objectives of the present study are to examine how mothers and fathers talk about the past with daughters and sons across the preschool years and to explore the early emergence of gender differences in autobiographical recall.

METHOD

Subjects

Twenty-four White, middle-class, two-parent families with children aged 3:6 were recruited through county birth records in the Atlanta, Georgia, area for participation in the study. Of this original sample, 17
families completed all relevant tasks at both the 3;6 and 5;10 time points. Two families moved out of state, one family dropped out of the study, and four families had missing data on at least one of the tasks. In 10 of these remaining families, the target child was male; in 7 of the families the target child was female. Seven boys and four girls were firstborns; three boys and three girls were laterborns. All but one father worked full-time outside the home. A majority of the mothers also worked full-time outside the home (58%), with other mothers working part-time (24%) and the remaining mothers working solely inside the home (18%). All parents had attended some college and 80% held a college degree.

Procedure

This study was part of a larger longitudinal project on children’s narrative development. One of three female experimenters conducted four sessions in the family’s home at each of the following ages: 3;6, 3;10, 4;10, and 5;10. At the outset of the study, experimenters told parents that they were interested in how much and what kind of information children remembered with different conversational partners. Mother–child and experimenter–child memory interviews were conducted during two separate sessions at each of these four time points, and father–child memory interviews were conducted during another session at the 3;6 and 5;10 time points, along with various other tasks. The mother–child interview always occurred before the experimenter–child interview at each time point, but the order of mother–child and father–child interviews was counterbalanced. Within each time point, the three memory interviews were conducted at least 48 hours apart, but within a two- to three-week period.

Event Selection

At all memory interviews, experimenters first aided parents in event selection. Experimenters helped parents select events that had only occurred once and that parents had participated in with children. Events such as birthdays or Christmas were excluded because they tend to be routines even by age 3;6 and children have trouble recalling a specific
instance (see Hudson, Fivush, & Kuebli, 1992). The resulting events discussed included visiting the zoo, going to a new amusement park, participating in a wedding, and a host of other unique happenings in the families' lives.² The majority of the events discussed were positive and child-centered. Inspection of the transcripts revealed no differences in the kinds of events mothers with daughters and sons and fathers with daughters and sons discussed, other than that only father–son dyads talked about sporting events.

*Memory Interviews*

After event selection, the parent and child, or experimenter and child, sat comfortably on a couch with the tape recorder between them. In the case of parent–child interviews, parents discussed the past events with their children for as long as they wished. Experimenters were not in the room during parent–child interviews. In experimenter interviews, experimenters introduced each event and asked children to tell as much as they remembered about the event. Experimenters confirmed children's responses and gave nondirective prompts such as "Tell me more about that" or "What else happened?" until children could no longer recall any more about that particular event; then experimenters went on to the next event.

*Coding*

All memory interviews were transcribed in full in preparation for coding. Then, two coders marked the beginning and ending of discussions about each event. The first three events discussed for which the child remembered at least two unique pieces of information were included in analyses.

The coding scheme for the parent–child interviews, and for the children's responses during the experimenter–child interview, was adapted from a previous coding scheme developed for portions of the same data set (Reese, Haden, & Fivush, 1993). Parent utterances were coded into the following categories.
1. *Elaborations* were parents’ questions and statements about the past event that provided a unique piece of information about the event that neither they nor their children had previously mentioned (e.g., child recalls eating ice cream and parent responds, “Ice cream. *It was an ice cream cake. And what was on the ice cream cake?*”; coded as two elaborations).

2. *Repetitions* were parents’ questions and statements in which they repeated their own previous question or statement about the event, or the gist of it, without providing any new information (e.g., parent asks “What did we do?” and in the next conversational turn repeats “*Do you remember what we did?*”). Parents’ memory prompts (e.g., “Do you remember?” or “Tell me about it”) were included as repetitions.

3. *Evaluations* occurred when parents confirmed or negated children’s responses by repeating children’s utterances along with an explicit evaluation. Within a conversational turn, parents were scored as producing one evaluation for repeating children’s utterances in an evaluative context and another for providing purely evaluative words such as “Yeah” or “No” or “That’s right, terrific!” Thus, parents could receive a possible total of two evaluations after each child utterance (e.g., child recalls going on the train at the zoo and parent responds by saying, “*Yeah! That’s right! We went on the train!*”; coded as two evaluations because the parent included both evaluative types).

4. *Off-topic utterances* consisted of behavioral directives to children or other parent utterances that had nothing to do with the past event in question.

5. *Other utterances* consisted of talk about related past events, comments on the memory process, and unclassifiable utterances.

Children’s utterances were coded in the following manner:

1. *Memory responses* were new pieces of information about the event that neither parents nor children had previously mentioned. At times these utterances introduced a completely new topic about the event; other times, these utterances provided new information about a subtopic of the event already being discussed (e.g., parent asks, “Do you remember the rhinoceros?” and child responds with,
"The rhinoceros was running around the man."). Children's genuine memory questions that requested new information were also coded as memory responses (e.g., when discussing her participation in a wedding, child asks, "The kids that weren't anything [in the wedding], could they go swimming?"). Children's memory questions occurred infrequently, at an average of once per event across the two time points.

2. Memory placeholders were children's utterances that were not off-topic but that added no new information to the conversation. Sometimes these utterances consisted of children repeating their own or parents' previous utterances (e.g., child says in one turn, "I had a sick throat" and in child's next turn says, "I was sick"). At other times, children took a legitimate turn but included no memory information (e.g., "I don't know" or "You tell me.").

3. Other utterances by children consisted of their confirmation or negation of parents' utterances, their off-topic comments, and fantasy talk or memory comments that were tangential to the past event discussion.

For the experimenter–child interview, only children's memory responses were coded. That is, children received credit for each proposition containing a new piece of information. The memory placeholder category was not relevant to the experimenter–child interviews and was not coded. Because the experimenter contributed only open-ended prompts in the experimenter–child memory interviews, these were not conversations; in this interview situation the child could not appropriately repeat their own or the experimenter's previous memory utterance but provide no new memory information. For parents' elaborations, repetitions, and for children's memory responses in all interviews, the unit of coding was the subject–verb proposition. For parent evaluations, the unit of coding was the type of evaluation, as described earlier. Children's memory placeholders in the parent–child interviews were only coded when there were no other codeable utterances in the conversational turn. Thus, children could only receive a possible total of one memory placeholder for each conversational turn.

Reliability on parent and child utterances in the parent–child interviews ranged from 82% to 90% across the two time points. For the experimenter–child interviews, reliability on children's memory responses ranged from 86% to 99% across the two time points.
RESULTS

Results are presented in three major sections. Analyses focus first on whether mothers and fathers differ from each other and with their daughters and sons in their use of elaborations, evaluations, repetitions, or off-topic talk over the preschool years. The next analysis examines patterns of difference in girls' and boys' responses in memory conversations with their mothers, fathers, and independent narratives with an experimenter. Because the results of these analyses reveal interesting gender differences, a third set of analyses was conducted to provide a more fine-grained examination of parental replies to children's responses in these memory conversations. Specifically, differences by gender of parent and gender of child are determined within the memory conversations for parents' and children's contingent responding.

Because a few children at each time point (though never the same child across time points) did not recall all three events in these conversations with their mothers, fathers, and experimenters, we chose to sum the occurrence of codes across events and average them rather than use totals. Thus, analyses were based on mean frequencies of each utterance type per past event.

Differences in Mothers' and Fathers' Talk With Daughters and Sons Over Time

The first question concerns possible differences by gender of parent and gender of child in the types of utterances used by mothers and fathers in memory conversations with their daughters and sons over time. More specifically, of interest were differences between mothers and fathers in their overall use of elaborations, evaluations, repetitions, and off-topic talk, and how mothers' and fathers' use of these conversational codes might also differ with daughters and sons at ages 3;6 and 5;10. Mean frequencies (and standard deviations) per event for mothers' and fathers' use of elaborations, evaluations, repetitions, and off-topic talk, as well as total number of utterances, by gender of child and time are displayed in Table 1.

A preliminary analysis was conducted on the mean number of the total utterance codes per event for each mother and each father, as an
TABLE 1
Mean Frequencies (and Standard Deviations) Per Event of Mothers’ and Fathers’ Utterance Types by Gender of Child and Time

<table>
<thead>
<tr>
<th>Utterance Type</th>
<th>Daughter</th>
<th>Son</th>
<th>Father</th>
<th>Daughter</th>
<th>Son</th>
</tr>
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<tr>
<td></td>
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<tr>
<td>Elaborations</td>
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</tr>
<tr>
<td>3:6</td>
<td>20.11</td>
<td>(10.11)</td>
<td>17.68</td>
<td>(4.46)</td>
<td>26.67</td>
</tr>
<tr>
<td>5:10</td>
<td>24.67</td>
<td>(9.73)</td>
<td>19.53</td>
<td>(11.06)</td>
<td>27.00</td>
</tr>
<tr>
<td>Evaluations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:6</td>
<td>13.83</td>
<td>(9.67)</td>
<td>8.47</td>
<td>(3.58)</td>
<td>15.48</td>
</tr>
<tr>
<td>5:10</td>
<td>16.29</td>
<td>(10.75)</td>
<td>7.72</td>
<td>(5.42)</td>
<td>12.00</td>
</tr>
<tr>
<td>Repetitions</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:6</td>
<td>10.55</td>
<td>(4.42)</td>
<td>10.45</td>
<td>(4.12)</td>
<td>13.31</td>
</tr>
<tr>
<td>5:10</td>
<td>7.33</td>
<td>(3.63)</td>
<td>7.33</td>
<td>(5.17)</td>
<td>7.95</td>
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<td>Off-topic talk</td>
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<td></td>
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<tr>
<td>3:6</td>
<td>5.17</td>
<td>(2.69)</td>
<td>4.70</td>
<td>(4.10)</td>
<td>2.26</td>
</tr>
<tr>
<td>5:10</td>
<td>1.62</td>
<td>(2.21)</td>
<td>2.75</td>
<td>(6.20)</td>
<td>0.38</td>
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<tr>
<td>Total utterances</td>
<td>54.42</td>
<td>(25.44)</td>
<td>44.75</td>
<td>(12.45)</td>
<td>62.91</td>
</tr>
<tr>
<td></td>
<td>56.62</td>
<td>(30.69)</td>
<td>44.37</td>
<td>(29.34)</td>
<td>58.57</td>
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</tbody>
</table>

average measure of the conversational length per event for each parent. A 2 (time point) by 2 (gender of child) by 2 (gender of parent) analysis of variance (ANOVA) performed on this measure revealed that mothers and fathers did not differ in the length of their conversations with their children at either of the two time points. However, fathers increase over time in their total utterances with sons, but not with daughters; mothers’ conversational length with daughters and sons does not increase over time, $F(1,15) = 3.90, p = .06$.

An overall 2 (time point) by 2 (gender of child) by 2 (gender of parent) by 4 (conversational code: elaborations, evaluations, repetitions, off-topic) ANOVA was next conducted with time point, gender of parent, and conversational code as within-subject factors and gender of child as a between-subject factor. Results revealed a marginally significant 4-way interaction ($F(3,45) = 2.48, p = .07$), as well a 3-way interaction of gender of child by gender of parent by time ($F(1,15) = 6.86, p < .02$), 2-way interactions of time by conversational code ($F(3,45) = 6.05, p < .001$), and gender of parent by conversational code ($F(3,45) = 2.36, p = .08$), and a main effect of conversational code ($F(3,45) = 92.33, p < .001$). To explore these effects in detail, analyses were conducted separately for each conversational code by
time, gender of child, and gender of parent, and followed up by post-hoc tests where appropriate.

For elaborations, a 2 (time point) by 2 (gender of child) by 2 (gender of parent) ANOVA, with time point and gender of parent as within-subject factors and gender of child as a between-subject factor, was conducted. There was a tendency for both mothers and fathers to use a greater frequency of elaborations with daughters ($M = 23.39$) than with sons ($M = 17.02$) at the 3;6 time point, but no differences by gender of child or parent at 5;10 ($M = 25.83$ with daughters; $M = 23.78$ with sons), $F(1, 15) = 6.86, p = .07$. However, as can be seen in the table, fathers use fewer elaborations with their sons at the first time point, compared with fathers' use of elaborations with sons at the last time point, and with mothers' elaborations with sons over time.

A 2 (time point) by 2 (gender of child) by 2 (gender of parent) ANOVA was conducted for mothers' and fathers' use of evaluations. At both time points, mothers were providing significantly more evaluations with daughters than with sons; fathers with daughters also use significantly more evaluations than fathers with sons at age 3;6, but no differences for fathers emerged at the 5;10 time point, $F(1,15) = 6.20, p < .05$.

A 2 (time point) by 2 (gender of child) by 2 (gender of parent) ANOVA indicated no differences by gender of child or parent for mothers' and fathers' repetitions at child's age 3;6, but with a child aged 5;10 fathers were using more repetitions ($M = 10.60$) than mothers ($M = 7.33$); particularly, fathers with sons were using more repetitions than fathers with daughters, $F(1,15) = 4.86, p = < .05$.

A 2 (time point) by 2 (gender of child) by 2 (gender of parent) ANOVA for off-topic utterances yielded no significant main effects of time point, gender of child or parent, and no interactions.

Surprisingly then despite the research that has found differences in adult females' and males' autobiographical memory reports, these results indicate very few differences between mothers and fathers in the ways they talk about the past with their preschool children. Although fathers were found to be more repetitive than mothers at the later time point, especially with sons, mothers and fathers did not differ from each other in their use of elaborations, evaluations, off-topic comments, or length of the memory conversations with their children over time.

Where we do find differences is by gender of child; parent–daughter conversations about the past are different from parent–son conversa-
tions. Particularly at the earlier time point, mothers and fathers are more evaluative and somewhat more elaborative in talking about the past with their daughters than are mothers and fathers with sons. Elaborations provide more detailed information about the event under discussion and may help to cue the child’s memory, enabling the child to access and contribute more memory information to the recount. Evaluations give explicit feedback, acknowledgment, and frequently praise the child’s participation in the conversation. In this way, the finding that parents with daughters are providing more evaluations and somewhat more elaborations during memory conversations than parents with sons is consistent with the idea that very early, females are being socialized to tell richly detailed, embellished stories about the past, and to view reminiscing as a valued way of interacting socially with others.

Clearly though, care must be taken in interpreting these results with regard to directionality of effect. In fact, these findings of differences in parents’ talk by gender of child are even more provocative in light of the children’s contributions to the memory conversations to which we now turn.

Children’s Talk With Mothers, Fathers, and Experimenters Over Time

As stated earlier, children’s provision of unique memory information was coded in memory conversations with the mother, father, and experimenter at both time points. To determine possible gender differences in preschoolers’ mean frequency of memory responses per event, a 2 (time point) by 2 (gender of child) by 3 (partner: mother, father, experimenter) ANOVA was conducted, with time point and partner as within-subjects factors and gender of child as a between-subjects factor. As can be seen in Figure 1, for both boys and girls and across partner, provision of memory responses increased significantly over time, $F(1,15) = 40.74, p < .001$. However, across time and partner, girls were providing significantly more memory information than boys, $F(1,15) = 8.22, p < .01$. Interestingly, a main effect of partner was also found, such that both boys and girls were providing more memory responses with their fathers than with either their mothers or experimenters over time, $F(2,30) = 4.71, p < .02$.

In the mother–child and father–child conversations about the past
at both time points, instances when the girls' and boys' responses in the conversation provided no new memory information were also coded; as noted earlier, memory placeholders were not relevant in the experimenter–child interviews. For children's memory placeholders, a 2 (time point) by 2 (gender of child) by 2 (gender of parent) ANOVA revealed no main effects of time, gender of child or parent, and no interactions.

Thus, children are generally recalling more memory information over time with all partners. Further, there were no differences for girls' and boys' provision of memory placeholders by gender of child, gender of parent, or time. However, boys and girls are providing more memory responses in conversations with their fathers than with their mothers or experimenters. Most intriguing, girls are providing more memory responses than boys with their mothers, fathers, and in independent past event narratives with an experimenter across the preschool period. Thus, very early in development, girls are contributing more detailed memory information than boys with different partners, including an
experimenter who uses only open-ended prompts. Girls' provision of more memory responses is not simply a function of differences in parents' talk to daughters and sons, but generalizes to unfamiliar conversational partners as well.

Yet, perhaps it is not surprising that girls are recounting more memory information than boys, based on the finding that mothers and fathers are more elaborative and evaluative with daughters than with sons. Quite possibly, girls are learning the skills of remembering in parent–child conversations and these skills generalize to other conversational partners as well. In order to examine the relationships between parents' and children's talk about the past in more detail, we conducted contingency analyses of parent and child utterances.

**Mothers' and Fathers' Replies to Daughters' and Sons' Responses in Memory Conversations**

Here we take a microanalytic approach to understanding factors contributing to gender differences in preschoolers' autobiographical memories. To further address the origin of girls' greater recall in conversations, we first examine whether parents reply differently to boys' and girls' responses. Next, we assess whether girls and boys respond differently to similar parental strategies. The first set of contingency analyses focused on parents' replies to children. We first asked whether mothers and fathers are more likely to reply with a particular utterance type to their daughters' and sons' memory responses, and second, how those replies might differ by gender of parent, gender of child, and time.

To give some examples of these child response–parent contingent reply relationships, mothers and fathers could reply with elaborations following daughters' and sons' memory responses or memory placeholders:

*Example 5*

<table>
<thead>
<tr>
<th>Father:</th>
<th>Do you remember what shoes we wore?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daughter:</td>
<td>Watershoes.</td>
</tr>
<tr>
<td>Father:</td>
<td>What was fun about the water shoes?</td>
</tr>
</tbody>
</table>

**MEMORY RESPONSE**

**ELABORATION**
Example 6

Mother: Where were our seats?
Son: Um, I forgot.
Mother: Way up high.
How high?

Mothers and fathers could instead reply with evaluations following daughters' and sons' memory responses or memory placeholders.

Example 7

Mother: Do you remember what we did on Christmas when we went to Bermuda?
Daughter: We went to the beach.
Mother: We sure did.

For these analyses we further considered mothers' and fathers' replies of repetitions or off-topic talk following daughters' and sons' memory responses and memory placeholders, as in:

Example 8

Mother: And so what did we do with the lights off?
Daughter: I can't see anything in the dark.
Mother: No.
So what did we do?

Therefore, in these analyses, conditional probabilities of mothers' and fathers' elaborations, evaluations, repetitions, and off-topic talk in reply to daughters' and sons' memory responses and memory placeholders were calculated. That is, given that the daughter or son provided a memory response, what proportion of the mother's and father's contingent utterances were elaborations, evaluations, repetitions, and off-topic talk? And given that the daughter or son provided a memory placeholder, what proportion of the mother's and father's contingent utterances were elaborations, evaluations, repetitions, and off-topic talk?

Tables 2 and 3 show the conditional probabilities of mothers' and fathers' reply types to girls' and boys' memory responses and memory placeholders respectively at each time point. Separate 2 (time point) by 2 (gender of child) by 2 (gender of parent) ANOVAs were performed on
TABLE 2
Conditional Probabilities of Mothers' and Fathers' Replies Following Daughters' and Sons' Memory Responses Over Time

<table>
<thead>
<tr>
<th>Parents' Replies</th>
<th>Mother</th>
<th>Father</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daughter</td>
<td>Son</td>
</tr>
<tr>
<td>Elaborations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:6</td>
<td>.50 (.10)</td>
<td>.55 (.20)</td>
</tr>
<tr>
<td>5:10</td>
<td>.62 (.15)</td>
<td>.62 (.22)</td>
</tr>
<tr>
<td>Evaluations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:6</td>
<td>.34 (.09)</td>
<td>.25 (.11)</td>
</tr>
<tr>
<td>5:10</td>
<td>.29 (.12)</td>
<td>.20 (.11)</td>
</tr>
<tr>
<td>Repetitions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:6</td>
<td>.11 (.05)</td>
<td>.16 (.11)</td>
</tr>
<tr>
<td>5:10</td>
<td>.07 (.05)</td>
<td>.09 (.08)</td>
</tr>
<tr>
<td>Off-topic talk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:6</td>
<td>.00 (.00)</td>
<td>.01 (.02)</td>
</tr>
<tr>
<td>5:10</td>
<td>.00 (.00)</td>
<td>.01 (.04)</td>
</tr>
</tbody>
</table>

TABLE 3
Conditional Probabilities of Mothers' and Fathers' Replies Following Daughters' and Sons' Memory Placeholders Over Time

<table>
<thead>
<tr>
<th>Parents' Replies</th>
<th>Mother</th>
<th>Father</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daughter</td>
<td>Son</td>
</tr>
<tr>
<td>Elaborations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:6</td>
<td>.55 (.10)</td>
<td>.60 (.15)</td>
</tr>
<tr>
<td>5:10</td>
<td>.61 (.13)</td>
<td>.69 (.18)</td>
</tr>
<tr>
<td>Evaluations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:6</td>
<td>.14 (.09)</td>
<td>.08 (.07)</td>
</tr>
<tr>
<td>5:10</td>
<td>.16 (.07)</td>
<td>.07 (.05)</td>
</tr>
<tr>
<td>Repetitions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:6</td>
<td>.25 (.06)</td>
<td>.30 (.09)</td>
</tr>
<tr>
<td>5:10</td>
<td>.15 (.09)</td>
<td>.16 (.11)</td>
</tr>
<tr>
<td>Off-topic talk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:6</td>
<td>.01 (.04)</td>
<td>.01 (.02)</td>
</tr>
<tr>
<td>5:10</td>
<td>.02 (.04)</td>
<td>.01 (.04)</td>
</tr>
</tbody>
</table>

each of the eight types of conditional probabilities.\(^5\) As shown in Table 2, mothers' elaboration replies to daughters' and sons' memory responses increased over time, whereas fathers showed no change in elaboration replies over time, $F(1,15) = 4.02$, $p = .06$. For evaluation replies to children's memory responses, mothers in interactions with daughters were more likely to reply with evaluations than mothers in
interactions with sons, whereas fathers in interactions with daughters were equally likely to reply with evaluations as fathers in interactions with sons over time, $F(1,15) = 5.15, p < .05$. Also shown in Table 2, fathers were more likely than mothers to reply to a son’s memory response with an evaluation. Both mothers and fathers use fewer repetition replies to daughters’ and sons’ memory responses over time, $F(1,15) = 7.40, p < .02$. There were no significant effects of time, gender of child, or gender of parent for mothers’ and fathers’ off-topic replies to girls’ and boys’ memory responses.

As displayed in Table 3, in replies to daughters’ and sons’ memory placeholders, mothers and fathers increased significantly in elaboration replies, $F(1,15) = 8.41, p < .01$, and decreased in repetition replies over time, $F(1,15) = 27.00, p < .001$. Mothers interacting with daughters were more likely to reply with evaluations of child memory placeholders than were mothers interacting with sons, whereas between the dyads of fathers and daughters and of fathers and sons there was no difference, $F(1,15) = 10.46, p < .01$. Also, mothers interacting with daughters were more likely to reply with evaluations to child memory placeholders than fathers interacting with daughters, whereas fathers speaking with sons were more likely to use evaluations than mothers with their sons. No significant effects of time, gender of child, or gender of parent were revealed for mothers’ and fathers’ off-topic replies to girls’ and boys’ memory placeholders.

Overall, these analyses again reveal few differences between mothers and fathers in their contingent replies of elaborations, repetitions, and off-topic comments to either their children’s memory responses or memory placeholders. In particular, whereas mothers, but not fathers, increase in their elaboration replies to daughters’ and sons’ memory responses over time, mothers and fathers both increase in elaboration replies to sons’ and daughters’ memory placeholders. Both mothers and fathers decrease in repetition replies to daughters’ and sons’ memory responses and memory placeholders over time.

Importantly, though, evaluation replies show effects of both gender of parent and gender of child. In particular, there is a greater distinction between mother–daughter and mother–son conversations than between father–daughter and father–son conversations following children’s memory responses and memory placeholders. Mothers are more likely to reply with evaluations to daughters’ memory responses and placeholders than are mothers to sons’ memory responses and placeholders,
whereas fathers show no such differences. Whether contributing more memory information or simply showing a willingness to participate in the conversations, girls are receiving more explicit feedback from their mothers about their contributions than are boys. Interestingly, however, sons' memory responses and placeholders are evaluated more by their fathers than by their mothers. Thus, for evaluation replies to children's responses in the memory conversations, there is an indication of differentiation between mothers and fathers when talking with the child of their same gender.

**Girls' and Boys' Replies to Mothers' and Fathers' Utterances in Memory Conversations**

A second set of contingency analyses examined children's responses to parents' utterances. When parents gave an elaboration in a conversational turn, what proportion of children's replies were memory responses versus memory placeholders? Children's contingent replies were also calculated in response to parents' repetitions and evaluations. Children infrequently gave on-topic (either memory or placeholder) replies to parents' off-topic utterances, and therefore these contingencies were not analyzed. Examples 9–11 demonstrate some of these contingent relationships.

Children could reply with a memory response after a parent elaboration, repetition, or evaluation.

**Example 9**

Mother:  (second request) Tell me what you remember about Marineland.
Son:    We saw dolphins.

**Example 10**

Mother:  We went to see the stables where she goes horseback riding
Daughter: Yeah.
Mother:  Yeah.
Daughter: I pet them on the nose!

Or, children could respond with a memory placeholder after a parent elaboration, repetition, or evaluation.
Example 11

Father: Yeah, what was Clifford like? What did he look like?  
Daughter: Um, I don't know.

Separate 2 (time point) by 2 (gender of child) by 2 (gender of parent) ANOVAs were performed on each of the six types of conditional probabilities. Table 4 shows the conditional probabilities of girls' and boys' memory responses to mothers' and fathers' elaborations, repetitions, and evaluations at each time point. Children increased their provision of memory responses to all of these parent utterance types over time (after elaborations, $F(1,15) = 18.55$, $p < .01$; after repetitions, $F(1,15) = 10.06$, $p < .01$; after evaluations, $F(1,15) = 8.73$, $p < .01$). Children in some instances responded differentially based on parent gender. First, children were more likely to give a memory response after a father's elaboration than after a mother's, $F(1,15) = 5.72$, $p < .05$. Second, girls tended to respond to more father repetitions with a memory reply, whereas boys tended to respond to more mother repetitions with a memory reply, $F(1,15) = 4.06$, $p = .06$.

Table 5 shows the conditional probabilities of girls' and boys' memory placeholders contingent upon mothers' and fathers' elaborations, repetitions, and evaluations. Again, effects of age were apparent. Children decreased their memory placeholder responses after parents' elaborations, $F(1,15) = 5.76$, $p < .05$, and evaluations, $F(1,15) = 5.89$, $p < .05$. Marginal effects by parent and child gender were also observed.

<table>
<thead>
<tr>
<th>TABLE 4</th>
<th>Conditional Probabilities of Daughters' and Sons' Memory Responses to Mothers' and Fathers' Utterances Over Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents' Utterances</td>
<td>Daughter</td>
</tr>
<tr>
<td></td>
<td>Mother</td>
</tr>
<tr>
<td>Elaborations</td>
<td></td>
</tr>
<tr>
<td>3;6</td>
<td>.28</td>
</tr>
<tr>
<td>5;10</td>
<td>.50</td>
</tr>
<tr>
<td>Evaluations</td>
<td></td>
</tr>
<tr>
<td>3;6</td>
<td>.28</td>
</tr>
<tr>
<td>5;10</td>
<td>.49</td>
</tr>
<tr>
<td>Repetitions</td>
<td></td>
</tr>
<tr>
<td>3;6</td>
<td>.20</td>
</tr>
<tr>
<td>5;10</td>
<td>.38</td>
</tr>
</tbody>
</table>
after parents’ elaborations: Girls tended to give fewer placeholders after parent elaborations than boys at the latter time point only, $F(1,15) = 3.26, p = .09$; and children were slightly less likely to give a placeholder after a father’s elaboration than after a mother’s, $F(1,15) = 3.13, p = .10$.

These analyses of the way children respond to parent utterances demonstrate that children are more responsive to all types of parents’ on-task utterances over time in their use of more memory responses and fewer placeholders. Children also seem to be responding differentially to some extent based on parent gender. They are more responsive to fathers’ elaborations than mothers’, and there was some tendency for girls to be more responsive to fathers’ repetitions and for boys to be more responsive to mothers’ repetitions. Across partners, girls had a slight tendency to be more responsive than boys, but only at the later time point. This is not the pattern we would expect if girls were eliciting higher levels of elaboration and evaluation from parents than were boys. If this were the case, then we would expect girls to show higher levels of responsiveness to both mothers and fathers than do boys, especially at the earlier time point, when the parental differences are most acute. Across analyses of conversational patterns, parents respond differentially to daughters’ and sons’ utterances, but girls and boys do not respond differentially to parents’ utterances. This pattern, although only suggestive, supports the interpretation that children are responding to differential socialization of reminiscing from parents more than parents are responding to existing gender differences in children.
DISCUSSION

In contrast to accumulating reports that women recount richer past experiences and recall more memories from early childhood than do men (e.g., Ross & Holmberg, 1990; Mullen, 1994), these results present very little evidence to support the notion that mothers and fathers differ dramatically in their style of reminiscing with their children. However, we did find pervasive and enduring gender differences, both in the ways daughters and sons recalled past events, and in the ways parents reminisce differently with daughters and sons in these conversations.

Across the 30-month period of study, mothers and fathers did not differ from each other in the overall level of new information they provided about past events for their children, or in their overall evaluations of children's utterances and off-topic comments. These findings of marked similarities between mothers and fathers were unexpected given other findings of differences in men's and women's reminiscing. That men and women talk about the past in similar ways to their children across the preschool period suggests that adult gender differences in reminiscing may be dependent on the context in which the discussion takes place and the partner with whom the memory is being recalled. Previous studies of gender differences in reminiscing have most often taken place in the laboratory, and always with an experimenter questioning the respondent (e.g., Cowan & Davidson, 1984; Ross & Holmberg, 1990; Friedman & Pines, 1991). In contrast, in our study, mothers and fathers reminisced in their own homes and with an intimate partner—their child. Moreover, mothers and fathers engaged in conversations with their children, in which parents and children jointly recounted experiences they shared together in the past, as opposed to an experimenter eliciting recall from an “experimental subject.” Any or all of these aspects of the context of recalling personal past events may be contributing to the differences in findings. When the context is more familiar, intimate, and relational, men and women may appear similar to each other in their conversational style of talking about the past (see Fivush & Reese, 1992, for an extension of this argument).

However, differential parental treatment according to child gender was marked, and these patterns were somewhat different for mothers and fathers. Whereas parents adopted a more evaluative style overall with daughters than with sons, and were more elaborative with daugh-
ters than sons at the 3;6 time point, contingency analyses revealed several ways in which gender of parent and gender of child interacted. Over time, mothers, but not fathers, increased in their elaboration replies to daughters' and sons' memory responses (see Reese et al., 1993, for more extended discussion of maternal elaborations over time). And mothers were more likely to reply with evaluations to daughters' memory responses and memory placeholders than mothers replying to sons, with no such differentiation for fathers. Overall, fathers were more repetitive than mothers at the last time point, particularly in their interactions with sons; fathers were also more likely to reply to sons' memory responses with an evaluation than were mothers.

In general, then, fathers of daughters and fathers of sons were not as different in the way they replied to their children's utterances as were mothers of daughters and mothers of sons. At least in this regard, mothers appear to be differentiating more on the basis of child gender than are fathers, a finding that is at odds with most previous research on parents' gender-stereotyped expectations and play behavior. Most studies that indicate a difference in gender typing between mothers and fathers have found that fathers gender type children to a greater extent than do mothers (see Block, 1983, and Lytton & Romney, 1991, for reviews). One possible reason for this discrepancy is that previous research has focused primarily on parents' differential play behavior with their children. Mothers and fathers may engage in more or less gender typing of their children depending on the degree to which they value the activity. Fathers, more than mothers, take on the role of playmate with their children (e.g., Clarke-Stewart, 1980); it may be that mothers engage in reminiscing and conversing more often with their children and place more importance on the activity than do fathers. In accord with theories of gender- and self-schemas (e.g., Markus, Crane, Bernstein, & Siladi, 1982), greater parental gender typing may occur for those activities that are highly valued and are thus more salient to the particular parent. If women value reminiscing more highly than men (Ross & Holmberg, 1990), the ability to talk fluently about past events may be a more salient part of the self-concept, and ultimately of gender identity, for mothers than for fathers (see Fivush & Reese, 1992, for related arguments).

Most important, the finding that parents differentially respond according to gender of child supports the notion that girls are receiving early and continued feedback that reminiscing is a valued activity. Both
mothers and fathers also modeled for girls more than boys the specific forms of an elaborative style in the process of talking about the past, especially in the early preschool period. Implicitly and explicitly, parents are informing their daughters of the forms and functions of reminiscing. Interestingly, socialization of reminiscing appears to be especially strong within same-sex dyads. In response to their memory-relevant utterances, sons received greater praise from their fathers than from their mothers, and daughters received greater praise from their mothers than from their fathers. This finding may reflect the more general tendency for parents to focus their socialization efforts more intensely onto their same-sex children (see Fagot, 1974).

Evidence of gender socialization by parents must be considered in light of what are certainly bidirectional influences operating between parents and children. Striking differences were found between boys and girls even by the beginning of the preschool years. Girls consistently recalled more unique information in the conversations than boys, across the preschool period and regardless of conversational partner. This finding provides dramatic evidence for the early emergence of adult gender differences in reminiscing, and once again brings up the question of whether parents' greater elaboration with daughters is simply a function of girls' greater recall.

The contingency analysis of boys' and girls' responding to parent utterances, however, revealed little evidence to support this notion that girls are simply eliciting an elaborative style from parents in their early reminiscing. Girls and boys showed no initial differences in their responsiveness to various parental strategies. Instead, girls became marginally more responsive than boys at the later time point, again providing support for parental socialization explanations of girls' reminiscing. Clearly, research with children even younger than age 3 is necessary before we can draw any firm conclusions about the origins of these gender differences.

A final, unexpected finding in this study was that both boys and girls recalled more when talking about the past with their fathers than with their mothers or an experimenter. Because there were very few obtained differences between mothers and fathers, and particularly because there were no differences between mothers' and fathers' conversational length, we cannot explain this finding on the basis of different ways that fathers and mothers were conversing with the children. Instead, these findings lead us once again to the role of
children in shaping their own early interactions. For the families in this study, mothers performed the role of primary caretaker. Talking about the past with their fathers, or simply having the chance to spend time alone with their fathers, may have been a special event for these children. Indeed, even though the events that mothers and fathers selected to discuss were similar, events experienced with fathers may have been marked by children as more unique than those experienced with mothers, simply by virtue of the children spending less time with their fathers. Both of these aspects may have contributed to children's greater recall with fathers. Future research might address frequency differences in mother–child and father–child reminiscing, as well as the distinctiveness of events discussed with mothers and with fathers. Comparing children’s independent recall for events experienced with mothers only and fathers only would be one way of testing this hypothesis.

Regardless of the ultimate explanation of why children recall more with fathers than other conversational partners, the results of this study clearly establish that gender differences in autobiographical recall emerge surprisingly early in development. Both mothers and fathers provide more elaborations and evaluations with daughters than with sons, especially in the early preschool period. Moreover, there is some indication that mothers are replying with more elaborations and evaluations of their daughters' memory responses than their sons', and this may be among the factors contributing to this gender difference. However, it must be stressed that gender differences in autobiographical recall, especially in adults, seem to be quite context sensitive. When reminiscing in the privacy of their home, with their own children, the fathers' recounts are just as elaborative and detailed as the mothers'. Thus, whereas this study documents developmentally early gender differences in reminiscing, it at the same time underscores the flexibility of these differences in social interactions.

NOTES

1 At each time point some events were discussed only by the mother, father, or experimenter, and some events were discussed by either the mother and the experimenter or the mother and the father. However, as this was not the focus of this study and all measures were calculated as mean per event, this factor was not included in the analysis.

3 Six dyads at the 3;6 time point (three mother–child pairs and three father–child pairs) and three dyads at the 5;10 time point (one mother–child pair and two father–child pairs) had only two codeable events. Importantly, these were different parents at each time point.

4 In the contingency analyses, mothers' and fathers' elaborations included an elaboration-only reply or an evaluation-plus-elaboration reply sequence following their children's memory response or memory placeholder. Similarly, mothers' and fathers' repetition replies included a repetition-only or evaluation-plus-repetition sequence.

5 We are aware that there is currently a debate in the literature about the most appropriate statistical technique for analyzing contingency data. However, we believe parametric tests are appropriate for several reasons. First, although it is true that each conditional probability by itself is a categorical variable, it is also the case that each participant's conditional probability can vary from 0 to 1. Therefore, the conditional probabilities do form a continuous variable, and analysis of variance is an appropriate procedure. Second, although some statisticians recommend logistic regression for these kinds of data, given our small sample size, this was not a viable option. Finally, previous research in this area has used analysis of variance to analyze contingent responses, and in order for these results to be comparable to already published accounts, analysis of variance seemed the most appropriate technique.

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