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Young Children's Recall of Christmas*

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Recent work in the area of children's memory has begun to focus on naturalistic recall in very young children. Nelson and Ross (in press), for example, examined mothers' diary accounts of their children's spontaneous recollections; Todd and Perlmutter (in press) interviewed young children and asked what past events they could remember. The research reported here addressed similar questions with a somewhat more structured method. Each of a number of young children was asked questions about a single, presumably salient event that had occurred two weeks earlier: Their celebration of Christmas. In addition to determining how much children of different ages would recall, we hoped to clarify the basis of any age differences that might be observed. Why do younger children generally recall past events less adequately than older children?

We chose Christmas as the topic for several reasons. First, it is a salient, infrequent, and child-centered holiday. If young children can recall any autobiographical events at all, they should be able to remember a recent Christmas. Second, Christmas is an event shared by an entire family. This made it possible to use parental accounts of Christmas Day to devise an individual recall protocol for each child. Finally, almost every Christmas celebration has many different aspects that can serve as the subject of recall: Objects (presents, food, decorations); people (visiting neighbors and relatives); and specific incidents (putting cookies out for Santa Claus, tearing ribbons off packages, waking up one's sleepy and all-too-slow-moving parents). We were also interested in determining what children of different ages

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would do when they were unable to recall something. Would they produce objects and incidents from other days, or would they simply fail to respond?

Method

Parents of preschoolers attending a campus nursery school at Wellesley College were recruited by letter and telephone. The first author visited eleven parents (of thirteen children) for one-hour interviews in the week after Christmas. The children were not present for these interviews. Parents were asked to relate the events of Christmas Day as well as of the day before, and any other Christmas-related incidents that they thought might come up in the course of interviews with their children.

Individual protocols were prepared on the basis of the information provided by the parents. We tried to design probe questions that would provide increasingly specific opportunities for positive responses. If a child failed to answer a question like "Tell me about Christmas," we could ask "Did you get presents on Christmas?" Failing to get an answer to this question either, we could ask "Did you get a drum?" In this way we hoped to give every child an opportunity to show what she could remember. We tried to include the same set of questions for each child (about presents, meals, visitors, etc.) but this was not always possible. In addition, it was sometimes necessary to eliminate portions of the interview in order to hold the child's interest.

Thirteen children between the ages of 26 and 59 months (see Table 1) participated in the study, including two sets of siblings. The children were interviewed about two weeks after Christmas. Ten were interviewed at nursery school and three at home. Interviews lasted about twenty minutes and were tape-recorded.

Results

Since Christmas celebrations varied widely from family to family, each child was asked somewhat different questions. However, there were two categories which applied to all the subjects: Presents received, and specific events that had occurred on Christmas Day. Recall of presents is shown in the first column of Table 1. Children were scored as having recalled a present if they did something more than merely recognize it when it was mentioned by the experimenter: If they recalled it themselves or expanded a probe question. (Experimenter: "Did you get a truck?" Child: "Green truck.") Because different children received different numbers of presents, Table 1 presents proportions rather than absolute numbers recalled. ($PR = (\text{Number of presents recalled by child}) / (\text{Number that parents said that the child had received})$.) As can be seen, older children recalled more presents than younger ones. The correlation between PR and age is $r = 0.85$ ($p < 0.01$).

Because young children are less adept at recounting events than older ones, we used a relatively loose criterion to score recall of incidents. A child received credit for recalling an incident if she could provide any additional information about it in response to a specific probe. (E: "Did anybody read you any books on Christmas?" C: "I think Megan did." E: "Remember what story?" C: "Paddington Bear.") We could not cal-

Table 1
Individual Memory Scores

S	Age (in mos.)	Sex	PR	IR	NA	SP	MM	NC
DC ^a	26	M	.09	1	14	.15	.00	2
JP	32	M	.15	3	18	.04	.00	0
JK ^b	33	M	.36	4	12	.05	.00	2
SM	33	M	.09	1	7	.14	.02	3
RL	34	M	.38	7	5	.11	.02	1
JM	35	M	.25	1	10	.06	.00	3
AM	36	F	.22	3	11	.03	.00	2
JC	38	F	.29	5	9	.08	.22	0
EC	43	F	.23	3	7	.00	.00	4
MC ^a	47	M	.58	5	3	.04	.04	1
CK ^b	57	M	.83	7	8	.01	.09	0
KC	57	F	.83	9	0	.00	.04	1
CC	59	M	.47	5	0	.00	.02	1
			<i>r</i> = .85*	.69*	-.75*	-.75*	.23	-.32

Age is in months. *a* indicates one pair of siblings, *b* another. PR: present recall; IR: incident recall; NA: no answer; SP: switches to present time; MM: metamemory; NC: non-Christmas incidents. (See text for detailed explanation of indices.) The last row shows the correlation of each index with age; correlations marked * are significant at $p < 0.01$.

calculate a percentage of incidents recalled (by analogy with PR), because it is impossible to define the total number of events in a day. Hence the second column of Table 1 shows the raw number recalled (IR). Unfortunately, there is no principled way to determine whether a child who reports fewer incidents has a relatively poor memory or just had a relatively dull day. (There was no apparent relationship between the number of incidents described by the *parents* and the number reported by their children). The table shows that even the youngest children recalled some events from Christmas Day, but older children recalled more. The correlation between IR and age is $r = 0.69$ ($p < 0.01$).

What were the young children doing when they were not recalling correctly? Sometimes they just failed to make any response at all. These failures to answer (NA) are tabulated in the third column of Table 1. (Often children simply nodded in response to a question. If the experimenter could clarify the meaning of the nod with "Yeah?" or "No?" it was not counted as NA.) There is a negative correlation between age and NA: $r = -0.75$ ($p < .01$).

The young children's failures to respond do not necessarily mean that they were uninterested in the interview itself. Often, they were simply more interested in talking about something in the present than something in the past. Consider the following fragment of the interview with D.C., a boy of 2 years, 2 months:

(D.C.) 1

- I: Did you get any presents? C: Yeah.
 I: What did you get? Tell me. C: They was in the cellar.
 I: They were in the cellar? C: I oped them up.
 I: You opened them up. What presents did you get? What toys did you get? C: (pause)
 I: Did you get a train? C: (pause)
 I: Did you get a book? D__? C: (pause)
 I: Did you get a book? C: Yeah.

- I: Yeah? Did you get a car? C: (pause, but nodded)
 I: Yeah? What kind of car? C: A green car.
 Tell me about the car. C: An' a red car.
 I: A green car? C: Uh.
 I: And a red car. A big car? C: Uh.
 I: A big red car, D__? Did you get a big red car? C: Yup.
 I: Ok. Did you have a stocking? C: Yeah.
 I: Where was it? C:* It was, . . . it's hooking. (referring to tape recorder)
 I: Ok. What other presents did you get? Can you tell me? Did you get anything to wear? C: (pause)
 I: Like a hat? Or mittens? Or a shirt? Did you get anything like that? C: Yea.
 I: What did you get? C:* (pause) This open? This open? (referring to tape recorder)
 I: Yea, that opens. What presents did the baby get? C:* This, uh, have to put it on. (referring to tape recorder)
 I: Ok. Don't touch that for a second. Look at me. Look at me, D__. What presents did M__ get? Tell me what M__ got. C: He had the presents oped, and the bi. . . (ringing phone heard in background) Will you get that telephone?

D.C. wants to talk about the tape recorder and the telephone; he doesn't much want to talk about Christmas. This is like the "Pop goes the Weasel" effect noted by Brown and Bellugi (1964). The child does not want to continue the conversation about the past, either because he can't remember it or because he doesn't care about it, but he does want to keep talking. We counted the number of these switches to the present time in each child's interview.¹ In order to equate the children for their overall talkativeness, we also counted the total number of each child's utterances, excluding those that consisted simply of "yes" or "no." Our index of the tendency to switch to the present time (SP) was the ratio of these two quantities; it also appears in Table 1. SP correlates negatively with age just as NA does: $r = -0.75$ ($p < 0.01$).

Some of the children's responses suggested the presence of at least rudimentary forms of metamemory. Responses like "I don't remember," "I forget," or "I can't figure out what was there" seem to indicate some degree of reflection on one's own mnemonic processes. Occasionally such a reflection produces additional information, as in this exchange with J.C., a girl of 3:2: E: "What did you have for dessert?" C: "I don't know. Nothing, I guess." E: "Ok." C: (pause) "I ate Santa ice cream." We counted the number of metamemory statements and divided them by the child's total number of utterances (again excluding "yes" and "no") to arrive at the metamemory index (MM) in Table 1. This measure did *not* correlate significantly with age: $r = 0.23$ ($p >$

¹One switch was counted whenever the child responded to a direct question about Christmas with an inappropriate reference to the present. Other references to the present were not counted. The three SP's in the excerpt from D.C., above, are marked with a "*."

0.20). It was also uncorrelated with SP: $r = 0.15$ ($p > 0.50$).

Some of the events that children recalled during the interview had indeed happened to them, but not on Christmas Day itself. Consider the following excerpt from the interview with E.C., a girl of 3 years, 7 months:

(E.C.) 2.

I: Do you remember Christmas?
Tell me about it.

C: R and I had a lot
of presents!

I: Did you? What presents
did you get?

C: I got a dollhouse, with
people.

I: Yeah?

C: And, us, some, uh, I
went to Lindsay's house.

I: To Lindsay's house?

C: Umhm.

I: Uh-Huh.

C: And, and after I went to
Lindsay's house, I went
back to my house, and then
I played with my dolls.

I: Yeah?

C: And, um, and when R__ came
home from school, he came
and I played downstairs
and he played with his toys.

E.C.'s mother told us that she had not gone to Lindsay's house on Christmas day, and surely R__ did not come home from school on Christmas either. The last column of Table 1 shows the number of such "non-Christmas" incidents (NC) recalled by the children. Like metamemory, NC is not significantly correlated with age: $r = -0.32$ ($p < 0.02$). However, there is an interesting reciprocal relation between these two variables. When age is partialled out, the negative correlation between the number of metamemory statements (MM) and of non-Christmas incidents (NC) is significant: $r = -0.67$ ($p = 0.02$).

As others have observed before us, young children are not always consistent in their responses. Perhaps because they do not readily accept the task of discussing the past, their answers seem to depend quite strongly on just how a particular question is put. Consider the following excerpts from R.L.'s interview:

I: Ok, did anyone come
over to see you open
your presents? Did
anyone come to see you
that day?

C: Uh-uh.

I: Did Lisabeth, Lisabus
come then?

C: Uh-uh, nobody did come
and visit us.

I: Did your grandparents
come?

C: No, my grandparents.

I: Gammy and Granddaddy? C: No!

(later in the interview)

I: What did you play with? C: (pause)

I: Were your grandparents
there? Were Gammy and
Granddaddy there? Did
they come over?

C: No.

(still later in the interview)

I: Did anyone else get toys
while you got toys? Did
Gammy and Granddaddy get
anything?

C: Uh-uh.

I: Did they get any presents
at all?

C: Yes, they did.

I: What did they get?

C: A marbles chute.

I: Did they get it that day?

C: Yes, and they had
a handle... (garbled)
...put it down.

I: And they put it down.

And the marbles come out? C: Yes.

I: Were they there that day? C: Yes.

The fact that R.L.'s grandparents visited on Christmas Day is not available to him in response to a direct question, but it becomes available as he recalls a specific incident.

Discussion

Our study has confirmed what others have already shown: Young children are not very good at episodic recall. This is true even when the topic of recall, Christmas, is of real interest to the child. When young children are not answering recall questions, they remain silent or try to switch the topic of discussion to something in the present.

Children who cannot answer a memory question may respond with some indication that they know they have forgotten. These metamemory statements occurred at all ages in our sample. Incorrect recalls -- reports of incidents that had actually occurred on non-Christmas days -- also occurred at all ages. The negative relation between these two variables suggests, however, that they represent alternative strategies: To say the first thing that comes to mind -- even if it is from the wrong day -- or to admit forgetting. Switches to talking about the present, which also appeared in our interview, may represent still another such strategy. Our overall impression is that the younger children are unfamiliar with the task of returning to specific times in the past, and deal with it clumsily -- they remain silent, or say the first thing that comes into their heads. It is not so much that they cannot remember anything -- every child recalled at least one present and one incident from Christmas Day -- but that they do not have good control of the recall process itself. Older children, in contrast, can readily cast their minds back to the day in question at the experimenter's request, and easily monitor the success or failure of their recall attempts.

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