Memory for Childhood Events: How Suggestible Is It?

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The veracity of children’s memory is frequently doubted because it is assumed that first, children’s memory is generally not very good, and second, children and their memories are too vulnerable to suggestibility to be credible. In this article these two assumptions are evaluated and three experiments are presented that address constraints on the construct of suggestibility. In the first experiment, it is reported that memory for a more frequently occurring event is more resistant to suggestibility than is memory for an event experienced only once. This finding is especially relevant to memory for child abuse as it is common for perpetrators to frequently abuse the same child. In two additional experiments it is reported that it is relatively difficult to suggest to a child that something occurred when it did not. These results suggest that although memories for childhood events may be imperfect, they are not likely to be confabulated.

A great deal of attention has recently been focused on the veracity of children’s memory. The specific context for this concern is the increase in the past two decades in the number of child abuse cases reported (Baker, 1992) and, in reaction, the debate about whether such claims are dependable. Whereas numerous researchers have reported that young children’s memory is generally reliable and highly resistant to suggestibility (e.g., Berliner, 1985; Goodman, Rudy, Bottoms, & Aman, 1990; Jones & McGraw, 1987), others have described children as unreliable witnesses because they easily confuse fantasy with reality and are likely to incorporate information suggested by interviewers into their own memory (Feher, 1988; Gardner, 1989; Schuman, 1986).

The principal basis for doubting the veracity of childhood memories rests on two assumptions: first, that children’s memory is not very good anyway and, second, that children and their memories are too vulnerable to suggestibility to be credible. This article focuses on evaluating both of these assumptions and presenting data that inform our understanding of some of the specific conditions under which memory is likely to be resistant to versus vulnerable to suggestibility. In the first portion of this article, literature regarding developmental differences in memory and suggestibility is reviewed. In the second portion of this article, three experiments are presented that address constraints on the construct of suggestibility.

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DEVELOPMENTAL DIFFERENCES IN MEMORY AND SUGGESTIBILITY

What do we know about the memory ability of children of various ages? Marked developmental differences have been reported in a range of traditional laboratory tests of memory. Generally, when children are asked to free recall an interaction with a stranger (Leippe, Romanczyk, & Manion, 1991), a story (Saywitz, 1987), or a list of words (Flavell, Beach, & Chinsky, 1966), there is a linear increase in the completeness of recall across the age span from preschool to early adolescence. Also, using stories (Paris & Upton, 1976) and pictures (Paris & Mahoney, 1974), 11-year-old children are more likely than 5-year-old children to make semantic inferences from information presented, and young children are generally less likely to use schemata for comprehension than are older children (Chi, 1978). However, although younger children free recall "less" than older children, their recall is not less accurate; that is, omission errors are more common with younger children but commission errors are generally rare and do not differ with age. This finding was most recently reported in a study by Goodman and Reed (1986) in which 3- and 6-year-old children played "Simon Says" with an adult male in a naturalistic setting. In contrast to results of recall tests, age differences in recognition memory are less pronounced (cf. Ceci, Ross, & Toglia, 1987; Jones, Swift, & Johnson, 1988; List, 1986; Nurcombe, 1986). Together these results suggest that if a child is asked direct questions about "what happened?" the content of their response is likely to be accurate but incomplete.

How do these developmental differences in memory relate to possible developmental differences in the suggestibility of memory? Although research on the suggestibility of children's memory can be traced back to the early twentieth century (cf. Binet, 1900), an increase in the number of studies on this topic has been noted, especially over the past 15 years. In this more recent work, a number of researchers, using a diverse set of methodological approaches with children of various ages, have reached quite mixed results. As this literature has been reviewed in detail elsewhere (cf. Ceci & Bruck, 1993; Cole & Loftus, 1987), the purpose of this discussion is simply to summarize these findings.

Whether age differences in the suggestibility of memory are observed depends on the age of the participants. As a general statement, few dispute the finding that "by the age of 10 or 11, children are no more vulnerable to suggestion than adults" (Cole & Loftus, 1987, p. 195). This conclusion follows from studies that have reported no difference in the suggestibility of memory between preadolescent children and adults with a wide range of tasks involving recall of a live confrontation (King & Yuille, 1987; Marin, Holmes, Guth, & Kovac, 1979), multiple-choice questions about a film clip (Cohen & Harnick, 1980), or answers to misleading questions about a cartoon slide sequence (Duncan, Whitney, & Kunen, 1982), a live lecture (Flin, Boon, Knox, & Bull, 1992), or an audiotape of a crime (Saywitz, 1987).

On the other hand, when preschool children have been compared to older children and adults, significant differences in the suggestibility of memory have been reliably reported. This conclusion follows from a review of 18 studies by Ceci and Bruck (1993) in which 15 of the 18 studies reported that preschoolers
were more suggestible. Again, a wide range of tasks were employed across these 18 studies, many of which showed impressive ecological validity.

However, although this finding reflects the general developmental trend when the results of preschoolers are compared with those of older age groups, it is important to note that there are constraints on preschool children's vulnerability to suggestibility, and these are just beginning to be articulated. For example, Goodman et al. (1990) reported that 4- and 7-year-old children were strongly resistant to suggestibility regarding touching that did not occur and, in general, more resistant to suggestibility if they had participated in rather than simply observed activities involving playing with a clown. And Goodman, Aman, and Hirschman (1987) reported that 3- to 6-year-old children who visited an immunization clinic were more resistant to suggestion regarding the actions that occurred in the clinic and the nurse's appearance than to those regarding the characteristics of the room. These results are especially important given that in most cases that involve children's testimony, the actions of the perpetrator and their identity are more important than what the room looked like.

Together, these results suggest that in evaluating the reliability of memory of children of various ages, preadolescents should be considered as reliable as adults and no more vulnerable to suggestibility. On the other hand, although the recall of preschoolers is generally less complete but no less accurate than that of older children and adults, memory of preschool children is more vulnerable to potential sources of suggestibility. However, even so, there are constraints on the conditions under which adults and children of all ages are vulnerable to suggestibility. The program of research reported in this paper addresses some of the conditions under which memory is vulnerable to versus resistant to suggestibility.

CONSTRAINTS ON THE CONSTRUCT OF SUGGESTIBILITY

In a typical study on suggestibility (Loftus, 1975; Loftus, Miller, & Burns, 1978; Pezdek, 1977), participants first view a sequence of slides, a videotape, or a film of an event. After viewing this event, they read a narrative or are asked some questions that intentionally mislead them about the identity of a small set of target items viewed in the original event (the misled condition), or they do not receive the misleading information (the control condition). The principal result is that participants are more accurate recognizing the original target item in the control condition than in the misled condition; that is, they are misled by the postevent information presented in the narrative or questions. Although the eyewitness suggestibility effect or misinformation effect is real and often robust, it does not occur under all conditions, and the size of the effect is highly variable (cf. Lindsay, 1993).

Two principles have been hypothesized to predict the probability that suggestibility will occur. The first principle is based on the hypothesis that suggestibility occurs because the test item is more likely to be matched with the falsely suggested information than the original information, although both are present in memory (Belli, 1989; Christiaansen & Ochalek, 1983; Lindsay & Johnson, 1987; McClockey & Zaragoza, 1985; Tversky & Tuchin, 1989). Accordingly, the probability of suggestibility depends on whether the retrieval conditions at the time of
test bias one to use a strategy for accessing the original memory, in which case suggestibility would not occur, or a strategy for accessing the misleading memory, in which case suggestibility would occur.

In support of this view, Pezdek and Greene (1993) used the typical suggestibility paradigm but participants were tested with either a verbal recognition memory test (matching the verbal modality of the suggested item) or a visual recognition memory test (matching the pictorial modality of the original item). The typical suggestibility effect was obtained in the verbal test condition. However, with the visual recognition memory test the hit rates did not significantly differ between the control and misled conditions. Additional results supportive of this model of suggestibility were reported by Bekerian and Bowers (1983). Again, using the typical suggestibility paradigm, half of their subjects were presented with test items in a random order (i.e., the retrieval environment did not match the environment of the original memory) and half were presented test items in the order that matched the order seen during input. The suggestibility effect resulted in the random order but not in the matched order condition.

The second principle that specifies constraints on the suggestibility of memory is that of trace strength theory (cf. Brainerd, Reyna, Howe, & Kingma, 1990; Ceci et al., 1987; Howe, 1991; Pezdek & Roe, 1994). Trace strength theory specifies that stronger memories are more likely to resist suggestibility than weaker memories. Trace strength theory, for example, has been used to explain why younger children appear to be more vulnerable to suggestibility than older children (i.e., the strength of the original information in memory is weaker for younger children). Also, Lindberg (1991) demonstrated that children were less suggestible in domains in which they had greater knowledge (i.e., greater memory strength). However, in none of these studies has the strength of information in memory been directly varied for the purpose of measuring the effect on the vulnerability of the information to suggestibility. This is the focus of the study that follows.

**Memory and Suggestibility for Frequently Occurring Events**

One of the principal assumptions examined in this paper is the view that memory for the sexual abuse is unreliable despite the fact that the abuse occurred frequently. A test of the suggestibility of memory as a function of the frequency of presentation of the original event was recently conducted in our laboratory (Pezdek & Roe, 1994). This issue is relevant to memory for traumatic events such as sexual abuse because perpetrators of sexual abuse often repeatedly abuse a child; sexual abuse is rarely an isolated event.

In this study, the typical suggestibility paradigm was used with the modification that in the presentation phase target items were presented either one or two times each. It has been demonstrated in previous studies (cf. Ebbinghaus, 1964, originally published 1885) that the strength of memory increases with the frequency of presentation. If stronger memories are more likely to resist suggestibility than weaker memories, then the difference in recognition memory between misled and control test items would be predicted to be greater under less memorable conditions (with frequency one) than under more memorable conditions (with
frequency two). This predicted pattern of results would be reflected in a significant interaction of misled/control test item type with frequency.

Method. Sixty 4-year-old and 60 10-year-old children participated in a 2 (age) \times 2 (frequency) \times 2 (misled vs control condition) mixed design with age as the only between-subjects variable. They viewed two slide sequences, each 38 slides in length. Slides were presented for 3 s each. One sequence depicted a woman returning home from grocery shopping and performing various activities in the kitchen. The other sequence included a man working on a construction site performing various activities associated with building a house. In each sequence there were two target slides. In the kitchen sequence the two target slides were (a) a picture of the woman reaching up into an open cabinet and taking out a plate and (b) a picture of the woman reaching into a kitchen drawer and pulling out a spoon. In the construction sequence the two target slides were (a) a picture of the workman next to a pile of boards picking up a hammer and (b) a picture of the workman bending down to pick up a brick. Each child viewed all four target slides with two presented once each (one control and one misled) and two presented twice each (one control and one misled). Prior to viewing the slide sequences, the children were instructed to look at each picture carefully as they would be asked some questions afterward about what they had seen.

Following the presentation phase was a distractor task and then a postevent narrative was read. The narrative described the two slide sequences, summarizing the activities that were observed. A description of both target slides was included in each narrative. The misleading sentences suggested that the plate was a bowl, the spoon was a fork, the hammer was a screwdriver, and the brick was a rock. The control sentences were identical except that the generic phrase "something" was substituted for the name of each specific item (e.g., "The woman reached into the kitchen drawer and pulled out something."). Following another brief distractor task, a recognition memory test was administered. The test was designed following suggestions of Tversky and Tuchin (1989). There were 12 test sentences each describing one of the four target slides. There were three versions of each of the four target items, each worded the same except that the key word referred to either (a) the item in the slide, (b) the item mentioned in the misleading condition of the narrative, or (c) a foil item. The foil items were cup for plate, knife for spoon, paintbrush for hammer, and newspaper for brick. The use of foil test items in addition to the slide and narrative test items allows an assessment of whether participants who were misled simply forgot the original slide item (in which case they would be equally likely to false alarm to the narrative and the foil test item) or whether they were more specifically misled to remember the item viewed in the slide as being that suggested in the narrative (in which case they would false alarm to the narrative test item but correctly reject the foil test item). As each sentence was read, each child responded "yes" or "no," indicating whether the sentence described one of the pictures they had viewed in the initial presentation phase.

Results and Discussion. The major predictions involve the participants' ability to discriminate between items they saw in the original slides and the corresponding items suggested in the narrative. Thus, the signal detection measure of $d'$ was computed. The $d'$ measure unconfounds response bias from memory sensitivity.
Because each subject responded to only one target item per each of the four conditions, the \(d'\) values were based on the group hit and false alarm rates. These \(d'\) data are presented in Table 1. These data follow the predicted pattern that the differences in \(d'\) between the control and misled conditions were greater for frequency 1 than for frequency 2.

It was necessary to use nonparametric statistics to analyze the \(d'\) data since each subject responded to only one target item per condition, with each response either correct (1) or incorrect (0). This analysis involved four steps. First, for each subject in each condition, a difference score was computed between his or her score on the target item (the item presented in the slide) and one minus their score on the suggested distractor item (the item that had been suggested in the narrative). These difference scores had values of \(-1, 0,\) or \(+1\). Second, for each subject within each level of frequency, a difference score was calculated—the score in the control condition minus that in the misled condition. These difference scores, ranging from \(-2\) to \(+2\), provide an ordinal value for the extent to which each subject was misled at each level of frequency. Third, another difference score was calculated—the mean misled score for each subject in the frequency 1 condition minus that in the frequency 2 condition. A positive score indicates that a subject was misled more in the frequency 1 than frequency 2 condition; a negative score indicates that a subject was misled more in the frequency 2 than frequency 1 condition.

Finally, a sign test was computed to test if the number of positive difference scores between the frequency 1 and frequency 2 conditions differed significantly from what would be expected by chance. When computed across all 120 subjects in both age groups, the sign test revealed this outcome to be significant, \(z = 2.076, p < .05\). For each age group separately, the binomial probability of the number of positive frequency 1 minus frequency 2 difference scores was significantly less than the \(p < .05\) chance level (binomial \(p = .03\) for 4-year-olds and binomial \(p = .04\) for 10-year-olds). Thus, participants were more vulnerable to suggestibility in the frequency 1 than frequency 2 condition.

In addition, separate analyses of variance performed on the hit rate data (i.e., the probability of saying “yes” given that the item was from the originally presented slide) and false alarm rate data (i.e., the probability of saying “yes” given that the item was from the postevent narrative) yielded similar findings. Thus, the major result of this study, principally that subjects were more likely to be
misled in the frequency 1 than frequency 2 condition, is not restricted to the pattern of hit rate or correct rejection rate data alone.

Finally, the average correct rejection rate for foil test items was quite high (.71 for 4-year-olds and .95 for 10-year-olds). This result confirms the findings of Tversky and Tuchin (1989) that the effect of the misleading information in the narrative is quite specific in that memory for the original item seen in the slide is not simply made less accessible in the misled condition, but more specifically, it is supplanted by the item suggested in the narrative.

Together, the results of this study support the trace strength hypothesis that stronger memories are more likely to resist suggestibility than weaker memories. These results are important because they articulate conditions under which children are likely to be reliable or unreliable eyewitnesses. For example, if a child is recalling an event that occurred several times to them, they would be expected to have more accurate memory for the event and be less vulnerable to suggestive influences such as biased interviewing procedures, compared to an event that occurred only a single time. This is especially important in child abuse cases because it is common for perpetrators to frequently abuse the same child. A child’s memory for an incident that occurred frequently would be expected to be relatively reliable, even in the face of possibly suggestive interviewing. Although there are obvious differences between the procedure and materials in this study and those involved in real world cases of child abuse, nonetheless, this study speaks to the general memory processes that underlie suggestibility and memory.

"Memory" for Events That Did Not Occur

Another principal assumption examined in this paper is the view that it is relatively easy to suggest to a child that something occurred when it did not. This assumption is at the heart of the claims that abuse did not occur but that the memories of abuse were suggestively planted by an overzealous police officer, social worker, or therapist who interviewed the child. To test this position, we recently conducted a study to examine how easy it is to suggest that something occurred when it did not. This study also addressed children’s memory for being touched, a domain in which little research is available.

The large majority of the studies on the suggestibility effect involve a procedure in which something is observed (e.g., a stop sign), a different thing is later suggested (e.g., a yield sign), and the test probes what the participants remember having seen. In such studies, as was reported earlier in this article, developmental differences in the suggestibility of memory usually result between preschoolers versus older children and adults. On the basis of this research, there are those who conclude that preschool children are unfit to provide eyewitness testimony. More generally, these results have been taken to demonstrate that adults and children can easily be suggestively influenced to believe that certain things happened when in fact they did not. However, there is an important difference between the structure of this later generalization and the structure of the source experiments. Most of the suggestibility studies are structured such that event A is observed, event B is suggested, and memory is tested for A versus B. In the generalization claims, A is never observed, A is suggested, and memory is tested
for A versus not A. There are significant differences between the structure of these two situations.

To examine the probability of suggestibility in these quite different circumstances, the present experiment compared suggestibility under three conditions:

- A is observed, B is suggested,
- A is not observed, A is suggested, versus
- A is observed, it is suggested that A was not observed; compared with two control conditions,
  - A is observed, nothing is suggested, and
  - A is not observed, nothing is suggested.

By comparing the relative vulnerability to suggestibility among these conditions, additional constraints on the construct of suggestibility will be examined. More specifically, in this study, the relative difficulty of suggesting that something happened when it did not can be determined.

Method. Eighty 10-year-old children participated individually in one 25-min session. At one identifiable point in the session, the experimenter showed the child a picture of a rose projected on a screen and asked if they could see the rose clearly. At this point the experimenter, for about 2 s, put her hand on their hand (event A), put her hand on their shoulder (event B), or did not touch them at all. The suggestion phase occurred about 15 min later, after viewing a story told in a sequence of slides. At this point, each child was read a narrative that "reviewed" for them what had happened during the session. Regarding the target behavior, in the three experimental conditions, they were told that they had been touched in a different way (B was suggested if A had occurred or A was suggested if B had occurred), told that they had been touched (A or B) if they had not been touched, or told that they had not been touched if they had been touched (either A or B). In the two control conditions the narrative mentioned nothing about the touching incident. Across the three experimental conditions and two control conditions the type of touch, on the hand or on the shoulder, was counterbalanced across subjects so that each occurred in the observed and suggested position equally often.

Subsequently, the children were given a recognition test to assess their memory. The test included three questions:

1. When I showed you the picture of the rose and asked if you could see it, did I touch you?
2. When I showed you the picture of the rose and asked if you could see it, did I put my hand on your shoulder?
3. When I showed you the picture of the rose and asked if you could see it, did I put my hand on your hand?

The first general question was asked to assess the claim of Goodman and Clarke-Stewart (1991) that children often find general questions about touching unclear and that although using specifically worded questions may have a suggestive influence, children’s responses to general nonspecific questions tend to be limited.

Results and Discussion. The major results involve the participants’ ability to
TABLE 2
Mean $d'$ Data in Each Condition of the Hand–Shoulder and Nose–Cheek Touching Experiments

<table>
<thead>
<tr>
<th>Experimental conditions</th>
<th>Hand–shoulder experiment</th>
<th>Nose–cheek experiment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A occurs, B suggested</td>
<td>$-1.18^*$</td>
<td>$-0.38^*$</td>
</tr>
<tr>
<td>2. A occurs, not A suggested</td>
<td>.67</td>
<td>.36</td>
</tr>
<tr>
<td>3. not A occurs, A suggested</td>
<td>1.03</td>
<td>1.68*</td>
</tr>
</tbody>
</table>

Control Conditions

<table>
<thead>
<tr>
<th></th>
<th>Hand–shoulder experiment</th>
<th>Nose–cheek experiment</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. A occurs, nothing suggested</td>
<td>1.02</td>
<td>1.73*</td>
</tr>
<tr>
<td>5. not A occurs, nothing suggested</td>
<td>2.35</td>
<td>3.76</td>
</tr>
</tbody>
</table>

* In these conditions the $p$ (hit) = 1.00 or the $p$ (false alarm) = 0. Thus, it was necessary to compute an estimated $d'$ value using 15.5/16 for the hit rate and .5/16 for the false alarm rate.

* Experimental condition differs significantly from corresponding control condition at the $p < .05$ level.

discriminate between their response to the question regarding what really happened (touch on hand, touch on shoulder, or nothing) and their response to the question regarding the other type of touch that did not occur but was either suggested or not mentioned. Thus, the signal detection measure of $d'$ was used. These results were derived from participants' responses to questions 2 and 3 above. Because each subject responded to only one target item, the $d'$ values were based on the group hit and false alarm data. These $d'$ data are presented in the first column of Table 2 for each of the three experimental and two control conditions.

Nonparametric statistics were again used to analyze the $d'$ data since each subject responded to only one target item, with this response either correct (1) or incorrect (0). This analysis involved two steps. First, a difference score was computed for each subject between his or her score on the target item (the original touch condition) and one minus their score on the suggested distractor item (the suggested touch condition). These ordinal difference scores took on values of $-1$, 0, or $+1$. Second, three separate $\chi^2$ statistics were carried out to test if the frequency of $-1$, 0, and $+1$ scores differed between each of the three experimental groups and the corresponding control group for each.

First, consistent with previous research, the distribution of positive, negative, and zero difference scores differed significantly between experimental condition 1 and the corresponding control condition 4, $\chi^2 (2) = 11.55$, $p < .01$, with more higher difference scores and fewer lower difference scores in the control than in the experimental condition. However, the difference between experimental condition 2 and the corresponding control condition 4 ($\chi^2 (2) = 1.11$) and the difference between experimental condition 3 and the corresponding control condition 5 ($\chi^2 (2) = 3.2$) were nonsignificant. Thus, although we were able to suggestively influence participants to believe that a different event occurred other than the event that was experienced, we were not effective in suggesting that something occurred when it had not nor that nothing occurred when it had.
One potential criticism of this experiment is that the results might be limited to relatively innocuous touches such as a touch on the shoulder or on the hand—touches that perhaps are not very likely to be remembered anyway. To test this interpretation a second experiment was conducted in which two more unusual touches were used. This second experiment was identical to the first except that each of 80 10-year-olds was either touched on the nose or touched on the cheek for two seconds at a particular point in the experimental session. The results of this second experiment are presented in the second column of Table 2.

As anticipated, the mean $d'$ rates were higher in the second experiment than in the previous experiment; however, as can be seen in Table 2, the pattern of results in the second experiment was similar to that in the previous one. The difference in the distribution of difference scores between experimental condition 1 and control condition 4 was significant, $\chi^2 (2) = 6.83$, $p < .05$, with more higher difference scores and fewer lower difference scores in the control than in the experimental condition. This result replicates the findings with the classic suggestibility paradigm. The difference between experimental condition 2 and control condition 4 was not significant, $\chi^2 (2) = 3.39$. The difference between experimental condition 3 and control condition 5 approached significance, $\chi^2 (2) = 5.93$, $p < .06$. This difference is attributable to the fact that performance was so high in the control condition; all 16 subjects assigned to control condition 5 were correct in recognizing the target event compared to 11 of the 16 subjects in experimental condition 3. Thus, although experimental condition 3 differed significantly from its control condition 5, the large majority of the subjects in experimental condition 3 were correct in rejecting the suggested plant.

The similar pattern of results across these two experiments supports the generalizability of the results beyond simply innocuous touches. Consistent with the prior experiment, these results confirm that it is relatively easy to suggestively influence someone to believe that a different event occurred other than the event that was experienced. However, we were not reliably able to suggest that nothing occurred when it had, and although there was some qualified support for the ability to plant a memory for an event that had not occurred, the large majority of the participants were correct in rejecting a suggested plant. These results raise doubts about the claim that a significant number of children who had never been sexually abused, could, by the suggestion of a police officer, social worker, or therapist, come to believe that they had been abused, often repeatedly and often by a parent or teacher.

A final analysis was conducted to assess the accuracy of the 10-year-old participants answering the general question about touching that was always asked first (e.g., "When I showed you the picture of the rose and asked if you could see it, did I touch you?"). Averaged across both experiments, the level of accuracy answering the general questions was quite low, 50% correct averaged across the three experimental conditions and 63% correct averaged across the two control conditions. These rates do not differ from the 50% chance level. This finding confirms the claim of Goodman and Clarke-Stewart (1991) that although using specifically worded questions may have a suggestive influence, children's responses to general nonspecific questions tend to be limited.
The conditions of touching in these two experiments certainly do not approximate the type of physical contact that occurs in incidents of sexual abuse. However, the conditions of touching used in these experiments provide a more realistic condition for studying the suggestibility of abuse memories than those used in the classic suggestibility studies that have provided a basis for most of the claims about the suggestibility of memory for sexual abuse. In the classic studies, the suggestibility of, for example, people’s memory for the appearance of a traffic sign in a briefly presented slide has been assessed (Loftus et al., 1978).

One of the few experimental demonstrations that an entire event can be suggestively planted in people’s memory was reported by Loftus (1993). In this study, five acquaintances of the researchers were led to believe that they had been lost in a shopping mall when they were 5-years old. There are several reasons why these results would not be expected to generalize to the situation of having a therapist plant an illusory memory for incest. First, in the Loftus study the memory was planted by a sibling who, in reality, could have been there; there is some basis for concluding that they might remember what happened even if the participant did not. The assumption that a therapist who was not present in the client’s past would be similarly likely to plant childhood memories is not convincing. Second, and most important, being lost while shopping is not such a remarkable implant. Children are often warned about the dangers of getting lost, have fears about getting lost, are commonly read classic tales about children who get lost (i.e., Hansel and Gretel; Snow White and the Seven Dwarfs; Pinocchio; Goldi Locks and the Three Bears), and, in fact, occasionally do get lost if only for a few frightening minutes. Therefore, it would be expected that most children have a preexisting schema for getting lost that would be accessed by the suggestion of a particular instance of getting lost in the Loftus demonstration. It is hardly likely that most children would have a preexisting schema for sexual abuse. That Loftus was sometimes able to plant memories for having been lost in a mall does not therefore mean that it is easy to plant memories for having been sexually molested.

CONCLUSIONS

The findings presented suggest some of the constraints that exist on the construct of suggestibility. First, results were presented that showed that 4- and 10-year-old children were less vulnerable to suggestibility about more frequently presented information. These results suggest that if a child is recalling an event that occurred several times to them, their memory would be more accurate and less vulnerable to suggestive influences such as biased interview questions, compared to their memory for an event that occurred only once. Consequently, children who were repeatedly abused by the same perpetrator are more likely to have reliable memory for the abuse than those abused only once, regardless of whether potential sources of suggestibility intervened.

Second, although it is relatively easy to suggest that one event happened when a different but similar event really occurred, it is more difficult to suggest that an event happened when it really had not or that an event had not happened when
it really had. Under some conditions it is certainly possible to plant memories for events that did not occur. Work in progress, for example, suggests that the probability of planting a memory increases with the number of times the planted item is suggested. This might explain how a child who is repeatedly exposed to suggestive interviewing might eventually come to remember the suggested information as real. However, given that in this study we were simply trying to suggest to a child that they had been touched on the hand or the shoulder, in one experiment, or on the nose or the cheek, in another experiment—and they were reluctant to comply with this suggestion when it had not occurred—it is difficult to imagine that a child could be misled to believe that they had been sexually abused, often by their parent or teacher, and often repeatedly over a prolonged period of time.

It is clear that the construct of suggestibility involves a complex set of cognitive processes that we are only beginning to understand. At this point, however, there is no empirical support for the view that childhood memories for frequently occurring events are generally unreliable or that it is easy to plant illusory memories for sexual abuse.

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