# Memory for child sexual abuse information: Simulated memory error and individual differences

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**Abstract** Building on the simulated-amnesia work of Christianson and Bylin (*Applied Cognitive Psychology, 13*, 495–511, 1999), the present research introduces a new paradigm for the scientific study of memory of childhood sexual abuse information. In Session 1, participants mentally took the part of an abuse victim as they read an account of the sexual assault of a 7-year-old. After reading the narrative, participants were randomly assigned to one of four experimental conditions: They (1) rehearsed the story truthfully (truth group), (2) left out the abuse details of the story (omission group), (3) lied about the abuse details to indicate that no abuse had occurred (commission group), or (4) did not recall the story during Session 1 (no-rehearsal group). One week later, participants returned for Session 2 and were asked to truthfully recall the narrative. The results indicated that, relative to truthful recall, untruthful recall or no rehearsal at Session 1 adversely affected memory performance at Session 2. However, untruthful recall resulted in better memory than did no rehearsal. Moreover, gender, PTSD symptoms, depression, adult attachment, and sexual abuse history significantly predicted memory for the childhood sexual abuse scenario. Implications for theory and application are discussed.

**Keywords** Individual differences · Memory · Child sexual abuse · Eyewitness testimony

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In recent decades, lively debate has ensued about the possibility that adults with child sexual abuse (CSA) histories may fail to retrieve memories of their traumas (e.g., Loftus & Ketcham, 1994; Williams, 1994). On the one hand, vital research has suggested that memory for traumatic events can be lost, impaired, or distorted (e.g., Freyd, 1996; Terr, 1994), and important individual differences in memory for trauma exist (e.g., Edelstein et al., 2005). On the other hand, considerable research has indicated that trauma generally aids in clarity of recollection, suggesting that CSA memories are unlikely to be unretrieved or "repressed" (e.g., Alexander et al., 2005; McNally, 2003). To resolve this debate, scientific research on memory for CSA is needed. Our aim was to develop an experimental paradigm for the scientific study of memory for CSA-related information. Specifically, our goals were to examine (1) the effects of simulating lack of memory on later recall of a CSA narrative, and (2) individual differences in memory for abuse and nonabuse components of a CSA scenario.

Relevant to the first goal, in several studies of adults' memory for documented CSA, failure to report past instances of abuse was a relatively common phenomenon (e.g., Widom & Morris, 1997; Williams, 1994). These results have been interpreted as indicating that forgetting of trauma is a somewhat frequent occurrence. However, it is possible that at least a subset of participants recalled the abuse but simply minimized or failed to disclose the experiences. Important implications for memory may result from failure to disclose abuse that has occurred. Specifically, simulating lack of memory or downplaying abuse may have detrimental effects on actual memory for CSA information. Our first goal was to explore this possibility.

Regarding our second goal, several individual-difference variables have been identified as possible predictors of memory for CSA. Among these variables are gender, posttraumatic stress disorder, depression, dissociation, and adult attachment (e.g., Edelstein et al., 2005; Eisen, Qin, Goodman, & Davis,

2002; McNally, 2003). Pertinent studies have largely examined memory for actual CSA. Although such research has the advantage of high external validity, it is difficult to draw firm scientific conclusions due to uncontrolled factors, such as the to-be-remembered information varying between participants. Thus, it is important to examine how individual differences affect memory for CSA information in an experimental, controlled context—for example, one in which identical abuse details are to be remembered. This was accomplished in the present research.

## Research on simulated amnesia

Our research is based on Christianson and Bylin's (1999) simulated-amnesia paradigm. The goal of their seminal research was to examine the effects of feigning amnesia on a mock perpetrator's memory for a crime; it is not uncommon in legal cases for suspects to feign memory lapses (Kopelman, 1995). Christianson and Bylin reasoned that simulating amnesia might have detrimental effects on memory.

Across several experiments, Christianson and Bylin (1999) and Bylin and Christianson (2002) asked participants to read a crime story, mentally inserting themselves into the scenario as the perpetrator who commits murder. The participants were then randomly assigned to one of several groups. In the Bylin and Christianson study, the *genuine* group was asked to report the story truthfully from the first-person point of view. The *simulation* group was asked to report the story while feigning amnesia for the crime, so as to evade responsibility. The *no-rehearsal* control group was not tested at Session 1. And the *commission* group was instructed to report the non-crime-related portions of the story truthfully but to concoct a story so as to evade responsibility for the crime. After a week's delay, all groups were instructed to report the story truthfully in free and cued recall. The participants who had feigned amnesia during the first session performed worse than those who had reported the story truthfully or lied about the crime information. Most of the errors were of omission rather than commission. Overall, the results suggest that lack of rehearsal led to poorer memory.

Van Oorsouw and Merckelbach (2004) and Sun, Punjabi, Greenberg, and Seamon (2009) expanded on Christianson and Bylin's work. They attempted to make the crime more realistic for college students (e.g., by having participants reenact the murder of a fellow student after reading a narrative about a friend's rape). The results of both studies revealed that the feigned-amnesia group's performance was worse than that of the accurate-recall group but did not differ from that of the control group, who had had no Session 1 test. The researchers concluded that the simulated-amnesia effect was due to a lack of rehearsal.

## Simulated memory error for child sexual abuse

If simulating amnesia for perpetrating a crime is disadvantageous for memory of the crime (e.g., through lack of rehearsal), it is reasonable to expect that simulating amnesia while taking the role of a victim could also be detrimental (e.g., due to lack of rehearsal) relative to true recall. Certain real-life crime victims—for example, victims of CSA—may be particularly likely to engage in processes similar to simulating amnesia (e.g., intentional omission of information about what happened; Leander, Christianson, & Granhag, 2007; Pipe, Lamb, Orbach, & Cederborg, 2007). However, arguably more so than perpetrating a crime, experiencing victimization is relevant to survival, and thus might involve "survival processing"—that is, the tendency for one's memory system to be attuned to and encode information that is pertinent to survival. This type of processing offers memory advantages over and above those of many other encoding conditions (Nairne & Pandeirada, 2008). Thus, to the extent that role-playing victimization activates psychological reactions similar to those of actual victimization, such processing could influence simulation effects.

In the present research, we tested the hypothesis that, relative to truthful recall, simulating memory error for victimization contributes to reduced memory later. For studying such issues, the "simulated memory error paradigm" (SMEP) is presented. Memory for trauma-related information has been examined in the laboratory previously with procedures such as the Deese/Roediger–McDermott (DRM) (Goodman et al., 2011) and postevent information (PEI) tasks (Loftus, Miller, & Burns, 1978). SMEP differs from past procedures in that it requires purposefully self-generated information as the manipulation, rather than misinformation either being recalled due to gist/semantic automatic processing or being provided by an experimenter, as in the DRM and PEI paradigms, respectively (see also Brewin, Huntley, & Whalley, 2012). Within SMEP, purposefully self-generating information to deny that CSA occurred may be similar to processing that takes place when victims intentionally deny past abuse.

Simulating memory error can take many forms that may have differential effects on true memory for CSA. For example, individuals can simulate memory error by omission (i.e., simulating a failure to remember information or minimizing what occurred) or by commission (i.e., creating an alternate memory account of the events in question). The former strategy may lead to reduced memory as a function of lack of rehearsal, whereas the latter may lead to memory error via source-monitoring errors—that is, the inability to determine whether the source of the remembered information is external (the CSA story) or internal (one's own mental process; Johnson, Hashtroudi, & Lindsay, 1993).

However, memory for CSA has been hypothesized to differ from memory for other types of experiences. Freud

(1896) contended that "repression" is associated not with trauma per se, but rather with processes like self-blame (negative implications for the self). The trauma of actual CSA could lead to self-blame attributions (Quas, Goodman, & Jones, 2003) that motivate avoidance of CSA memory—that is, to "no think" processes in which people use executive control functions to prevent unwanted memories from entering consciousness (Anderson & Green, 2001). Perhaps, in role-playing a CSA victim, self-blame attributions can also be activated. If so, participants who blame the victim (themselves) might show worse memory for the CSA scenario than do those who blame the perpetrator. To the extent that "no think" processes are activated in SMEP, the omission condition could result in worse memory than would be found for a control (no Session 1 test) group.

## Individual differences

Our second goal was to examine individual differences in memory for CSA. Reading a CSA narrative and recalling the CSA scenario could activate individual differences in memory, given the highly emotional and taboo nature of sexual relations with children.

*Gender* Gender differences exist in reactions to CSA cases. Females are more empathetic than males to child victims (Bottoms, 1993). The genders define CSA somewhat differently (Widom & Morris, 1997). Also, males make more omission errors than do females in remembering their own past CSA (Alexander et al., 2005). As compared to males, females have better memory for emotional information in general (e.g., Canli, Desmond, Zhao, & Gabrieli, 2002).

*Psychopathology* Posttraumatic stress disorder (PTSD) has been associated with memory problems. People with PTSD make more commission errors on DRM tasks (Bremner, Kihlstrom, & Shobe, 2000; Zoellner, Foa, Brigidi, & Przeworski, 2000). Also, under certain conditions, trauma victims evince working memory deficits, possibly due to unwanted intrusions of trauma content (Galletly, Clark, McFarlane, & Weber, 2001). However, PTSD may also be associated with hyperawareness of trauma cues (McNally, 1998; Vrana, Roodman, & Beckham, 1995), enhancing memory for CSA (Alexander et al., 2005). In contrast, depressed individuals tend to recall less information than their nondepressed counterparts (Hertel, 2000), and thus may show less complete memory when remembering a CSA scenario. Moreover, because depression is relatively frequent for CSA victims and highly comorbid with PTSD (e.g., Roosa, Reinholtz, & Angelini, 1999), it is important to measure depression when one is interested in effects of posttraumatic symptoms on memory. Finally, dissociation

predicts false memory, lost memory, and lack of CSA disclosure (e.g., Goodman et al., 2003; Hyman & Billings, 1998). Individuals with high dissociative tendencies may be more prone to source-monitoring errors because their greater imagination capabilities allow them to generate exceptionally vivid images with relatively less mental effort (Giesbrecht, Lynn, Lilienfeld, & Merckelbach, 2008). To the extent that reading about CSA might activate dissociative processes, adults with higher dissociation scores might show worse memory.

*Adult attachment* Taking the role of a CSA victim could activate the attachment system, which is concerned with protection from threat and harm. Attachment theory, originally developed regarding parent–child relationships (Bowlby, 1980), has been successfully extended to adult close relationships (Mikulincer & Shaver, 2007). Adult attachment is assessed across two dimensions: anxiety and avoidance. *Anxiety* reflects the extent to which individuals feel insecure in their relationships and are hypersensitive to attachment-related cues. *Avoidance* reflects the extent to which individuals are uncomfortable with interpersonal closeness. Adult attachment is related to adults' memory for actual CSA (Edelstein et al., 2005), adults' memories of early childhood events (e.g., Mikulincer & Orbach, 1995), and adults' and children's suggestibility and false memory (Chae, Ogle, & Goodman, 2009; Wilson, Simpson, & Smith, 2005). Edelstein et al. (2005) reported that although long-term memory for CSA was more accurate for more severe CSA in victims who scored low in avoidant attachment, the opposite pattern emerged for adults who scored high in avoidant attachment. However, at times attachment anxiety rather than avoidance predicts memory error, particularly when the to-be-remembered material is mildly as opposed to highly stressful (e.g., Melinder et al., 2010). In the present study, adult attachment orientations were measured to determine whether this individual difference would predict memory error about a CSA scenario.

## The present study

Our first goal was to examine the effects of simulated memory error on memory for CSA information. Participants read a narrative about a fictional CSA incident; the scenario contained abuse and nonabuse information. During the first visit to the laboratory, participants in three of the four groups were instructed to recall all parts of the story that were consistent with their experimental condition: truthfully (*truth group*), omitting details related to the CSA incident (*omission group*), or creating an alternative story (*commission group*). A fourth group was dismissed without rehearsing any part of the narrative (*no-rehearsal group*). After a one-week delay, all

participants were prompted to recall the story truthfully. Consistent with previous simulated-amnesia findings and the "rehearsal" explanation, it was predicted that for the nonabuse parts of the scenario, the no-rehearsal group would have the lowest mean correct and highest mean incorrect memory scores. For the abuse parts of the scenario, it was hypothesized that the truth condition would result in the highest mean correct and lowest mean incorrect memory scores, relative to the other three experimental conditions. However, the commission group was expected to have the highest mean incorrect abuse-information scores, as compared to all of the other three experimental conditions, due to source-monitoring errors. The omission condition was predicted to have CSA memory correct scores comparable to, if not lower than, those of the no-rehearsal group, with these two groups demonstrating impaired memory performance relative to the truth group.

Our second goal was to examine individual differences in CSA memory, averaged across experimental conditions. Participants completed questionnaires measuring PTSD (including traumatic sexual history), dissociation, depression, and attachment. Females were hypothesized to evince more accurate memory than males (Alexander et al., 2005; Kirsch-Rosenkrantz & Geer, 1991). On the basis of research showing heightened attention to trauma-related information in individuals with PTSD, it was predicted that PTSD symptoms would be associated with better memory for abuse information. Participants who scored higher in attachment avoidance, dissociative tendencies, or depression were expected to perform more poorly on the memory test.

**Method**

Participants

The participants included 213 undergraduates (68 % female), recruited from introductory psychology courses. Due to Institutional Review Board concerns, participants who had experienced certain traumatic experiences, including CSA, were instructed not to participate. The specific instructions read:

> If recently or in childhood/adolescence, you or a loved one experienced any of the following events (assaulted with a deadly weapon and injured badly, murder or attempted murder, child sexual abuse, being in the hospital for over one month as a child), we would like to excuse you from the study. You will still receive class credit for volunteering to be in the study. You do not need to tell us which of these events was experienced, and we do not need to know if this happened to you or a loved one.

However, many such individuals did choose to participate. Note that, on our measure of PTSD, 24 participants indicated as a traumatic event "sexual contact under the age of 18," and six participants indicated "sexual assault by a family member or someone you knew."

Materials

*Abuse narrative* A fictional abuse narrative was created (see the Appendix). The narrative was written in the second person, was gender-matched to the participant, and described an incident of CSA. For purposes of the analysis, the scenario was divided into nonabuse and abuse sections. The nonabuse section of the narrative was defined as everything up the point at which the perpetrator entered the bedroom. Everything from that point until the conclusion was defined as the narrative's abuse section. Participants were also given a one-page map of the locations mentioned in the narrative, to aid imagining the story's context.

*Emotional involvement questionnaire (Christianson & Bylin, 1999)* Emotional involvement was assessed with two scales. One scale measured self-report of emotional involvement (1 = *not at all*, 11 = *very much*), and the second scale tapped the extent of being emotionally influenced by the story (1 = *extremely negatively*, 11 = *extremely positively*).

*Culpability questionnaire* Four questions indexed feelings of culpability (1 = *not at all provocative/responsible*, 11 = *extremely provocative/responsible*). Two of the questions concerned the perpetrator ("To what extent did the perpetrator, Tom, behave provocatively toward you?" and "To what extent was the perpetrator responsible for the way things developed?"), and the other two questions concerned the victim ("To what extent did you behave provocatively toward the perpetrator?" and "To what extent were you responsible for the way things developed?").

*Memory questionnaires* The memory questionnaire consisted of two parts: free recall and cued recall. For Session 1, the free-recall prompt for the truth group stated: "Tell the story as accurately and honestly as possible." For the omission group, it stated: "Recall the nonabuse portions of the story accurately and honestly, but leave out details related to the abuse." The free-recall instruction for the commission group was to "Lie about the incident, to make it seem nonabusive." For cued recall, a 25-question test was constructed: 19 of the questions pertained to nonabuse (e.g., "What did you and your friends do that afternoon?" "What time did Tom pick you up?" "Who went with you to Lower Heights?"), and six questions were relevant to the narrative's abuse sections (e.g., "What did Tom do after he entered the room?" "Was Tom fully clothed?" "Did Jamie wake up when Tom was in the room?"). The memory questionnaires for Session 2 were identical to those for Session 1. The Session 2 data formed

the basis for the primary dependent measures in the present study.

*Posttraumatic diagnostic scale (PTDS; Foa, Cashman, Jaycox, & Perry, 1997)* The PTDS includes a 12-item checklist of traumatic events (e.g., sexual assault by a family member or someone you knew, sexual assault by a stranger, sexual contact when you were younger than 18 with someone who was four or more years older, torture, and life-threatening illness). Respondents indicate which, if any, of the 12 traumatic events were experienced or witnessed. They then select the item that had distressed them the most in the past month in order to answer the remaining questions (e.g., reexperiencing, avoidance, and arousal symptoms questions). The PTDS has test–retest reliability of .74. For our study, the participants' histories of sexual abuse were assessed by one item from the PTDS (i.e., "sexual assault by a family member or someone you knew").

*Center for epidemiological studies depression scale (CES-D; Radloff, 1977)* The CES-D is a valid and reliable 20-item self-report measure of depressive symptoms that uses a 4-point scale: 1 (*rarely or none of the time*) to 4 (*most or all of the time*). Its internal reliability, measured by the split-half method, is .85 for the general population (Radloff, 1977).

*Dissociative experiences scale (DES; Bernstein & Putnam, 1986)* The DES, a reliable and valid self-report measure of the frequency of dissociative experiences, consists of 28 statements, such as "Some people have the experience of finding new things among their belongings that they do not remember buying." The response scale ranges from *never* to *always*, with a high score indicating greater dissociative tendencies. The split-half reliability coefficients range from .83 to .93.

*Experiences in close relationships (ECR; Mikulincer & Shaver, 2007)* The ECR is composed of 18 items assessing avoidant attachment ("Just when my partner starts to get close to me I find myself pulling away") and 18 items assessing anxious attachment ("My desire to be very close sometimes scares people away"). Participants indicate agreement to each item using a 7-point scale: 1 (*strongly disagree*) to 7 (*strongly agree*). Separate avoidance and anxiety scores are computed using the average of the relevant items, with higher scores indicating more avoidant and anxious attachment, respectively.

Procedure

The study was conducted in two sessions, separated by a one-week delay. Participants were recruited from psychology courses, and at both sessions they were run in groups of 10 to 15 people, all in the same experimental condition. Before commencing with Session 1, the participants were advised that the study concerned CSA and were given the chance to decline participation.

During Session 1, participants completed a demographics questionnaire and were then instructed to read the CSA narrative (accompanied by a map) through twice. No time restrictions were enforced. Immediately after finishing the story, participants completed the emotional involvement questionnaire. A 30-min delay followed, while participants engaged in an unrelated distractor task.

Then, the no-rehearsal group was excused. The truth, omission, and commission groups were orally instructed by the experimenter to read free-recall prompts corresponding to their experimental condition. Participants were instructed to write their responses in the first person and were given 20 min to complete free recall. Next, the cued-recall test was administered. Participants were reminded to follow the instructions already given and that they should still respond (where appropriate) in the first person. Finally, while they were still role-playing the victim, participants were asked to rate the responsibilities of the perpetrator and the victim using the culpability scales.

At Session 2, all participants were told to disregard the rehearsal instructions that had been given the previous week and instead to truthfully remember the narrative. They were given 20 min for free recall, and they then completed the cued-recall test. Finally, the participants were again asked to rate the responsibility of each of the parties using the culpability scale, doing so truthfully, and no longer playing the role of the child. Then participants completed the individual-difference measures; they were explicitly instructed to complete them regarding themselves, and not for the child described in the story. The order of completion of the individual-difference measures was randomized across participants. At the end of the session, participants were debriefed.

Results

The free- and cued-recall responses were coded for units of correct and incorrect information. One point was assigned for each unit of information reported. Two independent coders, "blind" to the experimental conditions, scored the responses (proportions of agreement were .80 or higher).

The first set of analyses concerned Session 1 responses. These analyses served as manipulation checks. Then, all subsequent analyses reported are for Session 2 data only. All significant effects are reported.

Session 1

A series of one-way between-subjects analyses of variance (ANOVAs), with experimental condition (truth, omission, and commission) as the independent variable, was conducted on the following dependent measures, each entered separately for free recall: abuse correct, abuse incorrect, nonabuse correct, and nonabuse incorrect unit scores. The no-rehearsal group was not included due to their lack of Session 1 data. An identical series was then conducted for cued recall. For free and cued recall, the ANOVAs resulted in several significant condition main effects, $Fs(2, 153) \geq 4.11$, $ps \leq .02$, $\eta_p^2 > .05$ (Table 1). Planned comparisons ($ps < .05$) revealed that the pattern of the means was largely as expected. Specifically, for correct information in both free and cued recall, the truth condition resulted in significantly more units of accurate abuse and nonabuse information than did the omission or commission conditions. For incorrect information, the commission condition yielded significantly more units of erroneous abuse and nonabuse information than did the truth condition in free recall, and significantly more incorrect units of nonabuse information in free recall than did the omission condition. For cued recall, the commission and omission conditions produced more units of incorrect abuse information than did the truth condition, and the commission condition produced more incorrect abuse information than did the omission condition. The main effect of condition was not significant for incorrect nonabuse information for cued recall in Session 1. In summary, participants in the truth condition provided more correct information than did participants in the other two conditions. Participants in the commission condition provided more incorrect information than did those in the other two conditions.

However, some participants in the omission and commission conditions did not entirely define abuse and nonabuse information as we intended. If all participants defined abuse and nonabuse information in the way that we defined it, those in the omission and commission conditions should not have reported any correct abuse information (either in free or cued recall) at Session 1. Yet at Session 1 some participants in both the omission and commission conditions provided units of correct abuse information. Moreover, many participants in the commission condition apparently interpreted the directions to "lie about" abuse information to include "leaving out" abuse information, making them largely indistinguishable from the omission group. For example, in Session 1, the omission and commission groups did not differ significantly in the amounts of correct and incorrect abuse information provided during free recall. To be strictly consistent with the intended manipulation, participants in the commission condition should have provided significantly more incorrect abuse information than did both the

truth and omission groups. As a result, these groups were later combined into an "untruthful group."[1]

Session 2

Unless stated otherwise, all analyses reported next were 3 (Rehearsal Condition: truth, untruthful, no rehearsal) × 2 (Gender) between-subjects multivariate analyses of variance (MANOVAs). Univariate tests followed the significant multivariate effects, as did appropriate planned mean comparisons.

*Free recall* Our main hypotheses concerned Session 2 performance. In separate MANOVAs, conducted for the abuse and nonabuse narrative sections, the dependent variables were Session 2 correct and incorrect units of information (Table 2). For the abuse section, significant multivariate main effects of rehearsal condition, $F(4, 412) = 7.94$, $p < .001$, $\eta_p^2 = .07$, and gender, $F(2, 205) = 4.66$, $p = .01$, $\eta_p^2 = .04$, emerged. Univariate tests, $Fs(2, 206) > 3.26$, $ps < .05$, $\eta_p^2 s > .03$, followed by planned comparisons ($ps < .05$) indicated that the truth group recalled significantly more units of correct abuse information and fewer units of incorrect abuse information than did the untruthful and no-rehearsal groups. The untruthful group also provided significantly less incorrect abuse information than the no-rehearsal group, $p < .05$. The univariate main effect of gender was significant for the number of incorrect units of abuse information recalled, $F(1, 206) = 5.49$, $p < .05$, $\eta_p^2 = .03$: Males ($M = 3.27$, $SD = 3.35$) recalled more incorrect abuse information than did females ($M = 2.27$, $SD = 3.05$).

For the nonabuse sections, a significant multivariate main effect of rehearsal condition emerged, $F(4, 412) = 10.83$, $p < .001$, $\eta_p^2 = .10$. The univariate test, $F(2, 206) = 23.15$, $p < .001$, $\eta_p^2 = .18$, and planned comparisons ($p < .05$) indicated that the truth group recalled more units of correct nonabuse information than did the other two groups.

In summary, truthful rehearsal supported accurate free recall. The untruthful condition's scores were similar to those for the no-rehearsal condition, with one important exception: The untruthful group provided significantly fewer units of

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[1] As we indicated, some participants in the omission and commission conditions provided a modicum of correct abuse information at Session 1. To determine whether this altered our Session 2 findings, we conducted a series of one-way, between-subjects ANOVAs to examine the amounts of correct and incorrect information provided at Session 2 by experimental condition (truth, omission, and commission), removing all participants from the omission and commission groups who provided correct units of information during Session 1. The one exception was that for cued recall of correct abuse information, the analysis was performed using one standard deviation below the mean as the cutoff, because all participants in the omission and commission conditions provided at least one unit of abuse information as we had defined it. Our results revealed the same pattern of findings as those reported with the entire sample, indicating that the inclusion of a small amount of correct abuse information at Session 1 did not significantly alter the manipulation's effects. The results presented include the entire sample.

**Table 1** Mean units of information reflecting memory performance for the experimental conditions at Session 1

| | Abuse Information | | Nonabuse Information | |
|---|---|---|---|---|
| | Correct | Incorrect | Correct | Incorrect |
| **Free Recall** | | | | |
| Truth | 50.92 (19.22)[a] | 1.08 (1.66)[a] | 158.61 (62.15)[a] | 9.63 (19.95)[a] |
| Omission | 11.33 (10.87)[b] | 2.33 (3.93)[b] | 45.29 (48.53)[b] | 5.29 (13.66)[b] |
| Commission | 7.59 (11.57)[b] | 4.14 (8.20)[b] | 45.29 (43.08)[b] | 22.93 (27.77)[c] |
| Mean | 22.30 (24.13) | 2.64 (5.70) | 80.81 (73.64) | 13.39 (23.03) |
| Untruthful | 9.26 (11.37) | 3.33 (6.67) | 45.29 (45.39) | 15.02 (24.13) |
| **Cued Recall** | | | | |
| Truth | 8.20 (2.36)[a] | 0.86 (1.03)[a] | 20.46 (3.24)[a] | 3.77 (2.12) |
| Omission | 4.22 (2.41)[b] | 1.75 (1.65)[b] | 15.55 (4.99)[b] | 4.13 (2.99) |
| Commission | 3.79 (3.07)[b] | 3.38 (2.05)[c] | 17.55 (5.00)[b] | 5.16 (2.96) |
| Mean | 5.44 (3.31) | 1.99 (1.94) | 17.91 (4.85) | 4.35 (2.75) |
| Untruthful | 3.87 (2.69) | 2.61 (2.02) | 16.51 (5.08) | 4.41 (2.83) |

Standard deviations are in parentheses. Different letters within the same column (separately for free and cued recall) indicate significant between-subjects differences across experimental condition in Session 1. All significant differences are at $p < .05$

incorrect abuse information than did the no-rehearsal group. Males recalled more incorrect information about abuse than did females.

*Cued recall* In the MANOVAs, units of correct and incorrect information in cued recall were the dependent measures. For the abuse narrative section, significant multivariate main effects of rehearsal condition, $F(4, 412) = 4.28$, $p < .01$, $\eta_p^2 = .04$, and gender, $F(2, 205) = 3.48$, $p < .05$, $\eta_p^2 = .03$, emerged. A significant univariate effect, $F(2, 206) = 8.94$, $p < .01$, $\eta_p^2 = .08$, followed by planned comparisons ($ps < .05$) indicated that the truth group provided significantly more correct abuse information in cued recall than did the no-rehearsal and untruthful groups. The untruthful group provided significantly more correct abuse information than did the no-rehearsal group. The univariate gender main effect was significant for

amount of correct abuse information in cued recall, $F(1, 206) = 6.44$, $p = .01$, $\eta_p^2 = .03$: Females ($M = 7.44$, $SD = 2.22$) recalled more correct abuse information than did males ($M = 6.68$, $SD = 1.47$).

For the nonabuse section of the scenario, a significant multivariate main effect of rehearsal condition emerged, $F(4, 412) = 11.88$, $p < .001$, $\eta_p^2 = .10$. Significant univariate effects of rehearsal condition were observed for both correct information and incorrect information, $Fs(2, 206) \geq 6.77$, $ps \leq .001$, $\eta_p^2 \geq .06$. The truth group provided more units of correct nonabuse information in cued recall than did the untruthful and no-rehearsal groups, and the untruthful group provided more units of correct nonabuse information than the no-rehearsal group ($ps < .05$). With respect to the amount of incorrect nonabuse information recalled, the no-rehearsal group provided significantly more units of incorrect nonabuse

**Table 2** Mean units of information reflecting memory performance for the experimental conditions at Session 2

| | Abuse Information | | Nonabuse Information | |
|---|---|---|---|---|
| | Correct | Incorrect | Correct | Incorrect |
| **Free Recall** | | | | |
| Truth | 48.29 (16.21)[a] | 1.72 (2.14)[a] | 163.71 (46.74)[a] | 7.02 (6.70) |
| Untruthful | 38.20 (12.94)[b] | 2.54 (2.89)[b] | 114.72 (49.65)[b] | 6.52 (7.64) |
| No Rehearsal | 34.11 (11.91)[b] | 3.37 (3.75)[c] | 100.1 (39.78)[b] | 6.82 (6.74) |
| **Cued Recall** | | | | |
| Truth | 8.00 (2.17)[a] | 0.94 (1.21) | 18.46 (4.20)[a] | 4.27 (2.56)[a] |
| Untruthful | 7.24 (1.84)[b] | 1.11 (0.95) | 16.44 (4.35)[b] | 5.06 (2.18)[b] |
| No Rehearsal | 6.33 (1.99)[c] | 1.37 (1.25) | 12.89 (3.74)[c] | 5.96 (2.35)[c] |

Standard deviations are in parentheses. Different letters within the same column (separately for free and cued recall) indicate significant between-subjects differences across experimental condition in Session 2. All significant differences are at $p < .05$

information than did the truth and untruthful group. The untruthful group provided significantly more incorrect nonabuse information than did the truth group ($ps < .05$). These findings indicate that both truthful and untruthful Session 1 disclosure of abuse promoted better Session 2 cued-recall performance about abuse and nonabuse information than did no initial recall. Females recalled more correct and less incorrect information about abuse than did males.[2]

*Culpability and emotional involvement* For the culpability ratings at Session 2, we found no significant multivariate main effects of rehearsal condition, $F(8, 364) = 1.17$, $p = .32$, $\eta_p^2 = .03$, or gender, $F(4, 181) = 1.73$, $p = .15$, $\eta_p^2 = .05$, perhaps due to ceiling/floor effects (e.g., victim responsible, $M = 1.75$, $SD = 1.29$). With gender partialed, no significant correlations emerged between culpability ratings and the memory variables. When ratings of emotional involvement were analyzed similarly with a MANOVA, a significant multivariate rehearsal condition effect was apparent, $F(4, 412) = 2.55$, $p < .05$, $\eta_p^2 = .02$. The univariate test was significant, $F(2, 206) = 2.88$, $p = .05$, $\eta_p^2 = .03$. Scheffé post-hoc mean comparisons revealed that the untruthful group ($M = 3.36$, $SD = 1.95$) was significantly more emotionally involved in the story than were the truth ($M = 3.17$, $SD = 2.03$) and no-rehearsal ($M = 2.70$, $SD = 1.75$) groups, $ps < .001$. The truth group was also significantly more involved than the no-rehearsal group, $p < .001$. In addition, participants who were more emotionally involved with the story provided more units of correct abuse information in free recall, $r = .14$, $p < .05$, and fewer incorrect units of abuse information in cued recall, $r = -.14$, $p < .05$, suggesting that emotional involvement is related to better memory performance for sensitive information. Sexual assault history was not significantly correlated with self-reported emotional involvement, $r = .02$, n.s.

*Individual differences* Dummy variables were created contrasting the untruthful and no-rehearsal groups with the truth group. Means and standard deviations for the individual-difference variables, as well as correlations, are presented in Tables 3 and 4. A series of linear regressions was conducted to examine whether individual differences predicted correct and incorrect units of information reported at Session 2. A history of sexual abuse could affect participants' memory for CSA information, due to factors such as personal relevance and increased knowledge base (e.g., Bjorklund, 2004; Block, Greenberg, & Goodman, 2009), and thus the PTDS item on sexual abuse history was included in the regressions despite the fact that some individuals with such histories may have screened themselves from the study. The first set of linear regressions included the two dummy-coded variables (untruthful and no-rehearsal conditions), gender, PTSD criteria, DES score, CES score, and sexual assault by a family member/someone known (hereafter, "sexual assault") entered as predictors. Only new significant findings (e.g., those that did not duplicate those from the ANOVAs) are reported below.

For free recall, higher CES scores predicted fewer units of correct abuse information, $\beta = -.15$, $p < .05$ [overall model, $F(7, 209) = 6.23$, $p < .01$]. Also, individuals with more PTSD symptoms provided more incorrect abuse information in free recall, $\beta = .20$, $p < .01$ [overall model, $F(7, 209) = 3.47$, $p < .01$]. In cued recall, having a history of sexual assault predicted more correct abuse information, $\beta = .15$, $p < .05$ [overall model, $F(7, 209) = 5.33$, $p < .05$].

To test adult attachment variables as unique predictors of memory, another set of regressions was conducted: first with the two dummy-coded experimental condition, gender, PTSD criteria, ECR anxiety, ECR avoidance, and sexual assault variables entered as predictors, and then also including the ECR Anxiety × ECR Avoidance interaction (centered).

For free recall, the ECR Anxiety × ECR Avoidance interaction emerged as a significant predictor, $\beta = .14$, $p < .05$ [overall model, $F(8, 211) = 5.68$, $p < .01$, $R^2 = .18$; see Fig. 1]. Lower scores on the avoidance and anxiety dimensions (corresponding to more secure attachment) were associated with higher free-recall scores for correct abuse information. Regarding cued recall, scoring higher on attachment anxiety predicted fewer units of correct abuse information, $\beta = -.18$, $p < .01$ [overall model, $F(8, 211) = 6.22$, $p < .01$, $R^2 = .18$]. For nonabuse information, higher ECR anxiety scores predicted fewer units of correct and more units of incorrect information in cued recall, $\beta$s $= -.17$ and $.14$, $ps < .05$ [overall models, $F(7, 211) = 11.46$ and $3.00$, $ps < .01$, $R^2$s $= .28$ and $.08$, respectively].[3]

## Discussion

In the forensic context, when adults are interviewed about past CSA, some of the adults may recount what occurred truthfully.

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[2] A 3-point confidence scale (1 = *guessing*, 2 = *fairly sure*, 3 = *sure*) followed each cued-recall question. Confidence was significantly lower in the no-rehearsal ($M = 2.30$, $SD = .04$) than in the truth ($M = 2.63$, $SD = .04$) and untruthful ($M = 2.52$, $SD = .24$) conditions, $ps < .001$. The latter two means also differed significantly, $p < .001$ [main effect, $F(3, 189) = 14.47$, $p < .001$, $\eta_p^2 = .19$; Tukey's post-hoc comparisons]. The mean confidence ratings across conditions and the total units correct across memory tests were significantly correlated, $r = .49$, $p < .001$. The confidence ratings largely mirror the accuracy findings.

[3] Examination of the data revealed nonnormal distributions for a subset of incorrect-information variables and culpability ratings. For these dependent measures, square root transformations were performed and the analyses repeated. The significant findings were maintained.

**Table 3** Means and intercorrelations among experimental conditions and individual-difference variables

| | $M$ (SD) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Untruthful | 0.50 (0.50) | 1 | −.61** | .09 | .14* | .01 | −.02 | .01 | .04 | .07 |
| 2. No rehearsal | 0.27 (0.45) | | 1 | −.05 | .02 | .08 | −.00 | .01 | .03 | −.05 |
| 3. Gender | 1.6 (0.47) | | | 1 | .00 | .09 | −.15* | .07 | −.04 | .13 |
| 4. PTSD | 1.9 (1.9) | | | | 1 | .21** | .20** | .13 | −.05 | .12 |
| 5. CES | 0.97 (0.52) | | | | | 1 | .41** | .44** | .14* | .11 |
| 6. DES | 14.96 (12.12) | | | | | | 1 | .41** | .23** | −.01 |
| 7. ECR Anxiety | 55.53 (28.23) | | | | | | | 1 | .17* | .08 |
| 8. ECR Avoidance | 62.93 (20.02) | | | | | | | | 1 | −.00 |
| 9. Sexual assault | 0.03 (0.18) | | | | | | | | | 1 |

* $p < .05$, ** $p < .01$, $N = 211–213$. The untruthful and no-rehearsal variables reflect dummy-coding against the truth group. PTSD = Posttraumatic Diagnostic Scale. CES = Center for Epidemiological Studies Depression Scale. DES = Dissociative Experiences Scale. ECR = Experience in Close Relationship Questionnaire. Sexual assault = history of sexual abuse by a family member or someone the victim knew

Others, however, may omit key information or lie to minimize what happened. Later, the victims might be reinterviewed and want to truthfully recount their ordeal. Concerns may be raised, however, about the effects of the initial disclosures or nondisclosures on later memory. Concerns might also be raised about the effects of individual differences (e.g., in trauma-related psychopathology) on memory for CSA.

Although it is difficult to address these concerns in laboratory research (e.g., imagining victimization is clearly different from being a victim), our paradigm attempted to capture some core features of simulated memory error for CSA and effects of individual differences in an experimental study. Specifically, in the present research we sought to examine (1) whether simulating memory error for CSA would have detrimental effects on true memory for CSA, and (2) whether individual differences are related to memory for CSA information. With respect to our first goal, simulating memory error had detrimental effects on memory for CSA that are often—but, of importance, not always—comparable to the effects of no rehearsal.

Overall, when free recall was tested at Session 2, participants who had truthfully rehearsed the story recalled correct information more than did the untruthful and no-rehearsal groups, for both CSA and nonabuse information. Our Session 2 free-recall results concerning correct information are consistent with those of other simulated-amnesia studies. For example, Sun et al. (2009) reported that in their delayed-recall (no rehearsal) and feigning-amnesia (omission) conditions, recall memory was significantly worse than in the accurate-recall (truth) condition. Sun et al. concluded that the effect was due to differential rehearsal. Participants in their accurate-recall condition recalled (rehearsed) details of the crime at Session 1, resulting in robust memory relative to those who did not recall or who feigned amnesia. Lack of rehearsal is a common explanation for the effect of feigned amnesia (Sun et al., 2009; Van Oorsouw & Merckelbach, 2004), and our Session 2 free-recall findings for correct information are consistent with that interpretation, regardless of whether abuse or nonabuse information was considered.

**Table 4** Correlations of memory measures with experimental conditions and individual-difference variables

| | Untruth | NoReh | Gender | PTSD | CES | DES | ECR Anx | ECR Avoid | Sex Assault |
|---|---|---|---|---|---|---|---|---|---|
| Abuse Correct | −.09 | −.22** | .10 | −.04 | −.17* | −.07 | −.10 | −.10 | .15* |
| Abuse Incorrect | −.01 | .16* | −.15* | .19** | .00 | .05 | .08 | −.09 | −.03 |
| Nonabuse Correct | −.14* | −.26** | .06 | −.00 | −.10 | −.08 | −.06 | −.04 | .08 |
| Nonabuse Incorrect | −.03 | .01 | −.09 | .09 | −.03 | .11 | .04 | .01 | .06 |
| Abuse Correct | .03 | −.26** | .17* | −.03 | −.07 | −.14* | −.18** | −.03 | .18** |
| Abuse Incorrect | −.03 | .12 | −.14* | .06 | −.04 | .04 | −.04 | −.08 | −.12 |
| Nonabuse Correct | .06 | −.42** | .09 | −.05 | −.18** | −.15* | −.18** | −.10 | .00 |
| Nonabuse Incorrect | −.03 | .22** | −.03 | .09 | .08 | .10 | .15* | .03 | .02 |

* $p < .05$ ** $p < .01$. The untruthful and NoReh (no-rehearsal) variables reflect dummy-coding against the truth group. Untruth = Untruthful condition. PTSD = Posttraumatic Diagnostic Scale. CES = Center for Epidemiological Studies Depression Scale. DES = Dissociative Experiences Scale. ECR Anx = Experience in Close Relationship Questionnaire, Anxiety Scale. ECR Avoid = Experience in Close Relationship Questionnaire, Avoidance Scale. Sex assault = sexual assault by a family member or someone the victim knew
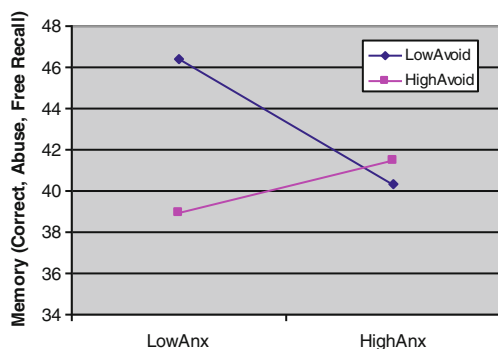
**Fig. 1** Interaction of attachment anxiety and avoidance for free recall of correct abuse information in Session 2 (LowAvoid = low avoidance, HighAvoid = high avoidance, LowAnx = low anxiety, and HighAnx = high anxiety)

Regarding incorrect information, Sun et al. (2009) found greater errors in free recall for the delayed-recall and feigning-amnesia conditions, relative to the accurate-recall condition. Similarly, in our study, the no-rehearsal and untruthful groups recalled significantly more units of incorrect abuse information than did the truth group. However, of importance, our untruthful group provided significantly less incorrect information about abuse than did the no-rehearsal group. It is possible that the mental work required to omit or err about the abuse information resulted in selected rehearsal of it, providing some guard against memory errors, at least relative to the memory fade based on no recall. This finding potentially implies that intentionally omitting or erring on abuse information, although it is not as helpful for long-term memory as truthful free recall, nevertheless leads to less memory error than does lack of free recall. We did find results comparable to those of Sun et al. regarding nonabuse information, suggesting that the abuse information proved to be particularly memorable for all participants. Perhaps with a longer delay, a greater number of errors might have been detected, for example, in the no-rehearsal or untruthful conditions.

For Session 2 cued recall, a not dissimilar pattern emerged. In addition to the benefits for memory of initial truthful recall, being untruthful about the abusive nature of the incident led to better cued recall of correct information than did no rehearsal of the information. Again, it appears that having one's memory tested at Session 1, even if a person omitted or lied about the information, resulted in better Session 2 memory (in this case, cued recall) than did not being tested, perhaps due to the need to keep the original information in mind during Session 1 so as to manipulate the report of what happened. Being tested in itself can promote accurate memory (Chan, 2010; Fazio, Agarwal, Marsh, & Roediger, 2010), although in the present case, being tested and telling the truth resulted in the most accurate performance. However, in cued recall, we found no significant rehearsal condition differences in incorrect information about abuse. Regardless of whether participants

answered truthfully, lied, or were not tested at Session 1, their error rates were equivalent at Session 2.

At this point, we can only speculate as to why the results differed at least somewhat for Session 2's free and cued recall. Arguably, cued recall is a more sensitive test of memory, in that cues are provided for retrieval. Cued recall may therefore have helped participants access memory that they could not or chose not to recount in free recall.

Memory for CSA has been hypothesized to differ from memory for many other traumas. Freudian theory suggests that "repression" is associated with lost memory for CSA, through such processes as self-blame (e.g., culpability). However, in the present study, participants who blamed the victim (themselves) did not evince worse memory for the CSA scenario. Moreover, the paradigm did not result in a "repression" or "lost memory" effect, in which case a greater deficit in the untruthful (particularly the omission) condition than in the no-rehearsal condition might have been expected (e.g., Anderson & Green, 2001). Repressed memory, in the Freudian sense, may be elusive or nonexistent (Loftus & Ketcham, 1994), or simply playing the role of a CSA victim may not have activated sufficient self-blame attributions to affect memory performance.

Regarding our second goal, several interesting individual differences (averaged across experimental conditions) were detected. Females recalled a greater number of correct details (in both free and cued recall) and fewer incorrect details (in cued recall) related to the abuse, as compared to males. Significant gender differences were not evidence in memory for the nonabuse sections of the scenarios. Past research had indicated that male victims show greater memory deficits for and less likelihood to disclose actual sexual abuse (e.g., Alexander et al., 2005; Kirsch-Rosenkrantz & Geer, 1991; Widom & Morris, 1997). This tendency could be part of a broader one wherein males evince less neural activation and less complete memory for emotional (i.e., negatively arousing) information than do females (e.g., Canli et al., 2002).

In contrast to predictions, having more PTSD symptoms was associated with Session 2 free recall of incorrect abuse information. The PTSD symptoms were not necessarily due to sexual abuse, but may have resulted from other traumas (a likelihood increased by our screening process), which could have affected the pattern of results. Our results fit with concerns that traumatization may be associated with commission errors and memory-monitoring problems, at least for story material (e.g., Windmann & Krüger, 1998).

For Session 2 free recall of correct information, our prediction of attachment avoidance being associated with poor memory performance was partially supported. Individuals who self-reported low attachment avoidance and low attachment anxiety (corresponding to more secure attachment) showed the best memory performance. Such individuals tend to have more accurate memories for interpersonal

information (Simpson, Rholes, & Winterheld, 2010). Furthermore, lower scores on our attachment anxiety dimension predicted fewer memory errors, consistent with research on memory for mildly stressful situations (e.g., Melinder et al., 2010). Anxiety in general (which perhaps overlapped with our attachment anxiety dimension) would be anticipated to interfere with encoding and/or retrieval (e.g., Mogg, Mathews, & Weinman, 1987).

Scoring higher in depression predicted fewer correct units of abuse information in free recall at Session 2. In general, individuals who are more depressed tend to recall less information than do their nondepressed counterparts (e.g., Basso et al., 2007; Hertel, 2000). In our study, this relation was only significant for abuse information in free recall. Possibly individuals with greater, relative to those with lesser, depression remembered the story equally well (as assessed through cued recall) but were more distressed by having to freely recall the abusive event, and therefore avoided the cognitive effort required for more complete recall of the abuse. Depression was not associated with greater error. Although multicollinearity prevented the CES and attachment scores being entered into the same regression, the results suggest that less depression and/or greater secure attachment tendencies predict better memory for trauma-related information. From a theoretical standpoint, more-secure individuals are believed to nondefensively attend to and process negative information that could activate their attachment systems, which might promote accurate memory for CSA material (Edelstein et al., 2005). Although further research is needed, that SMEP produced these findings attests to its potential value.

For Session 2 cued recall, a history of sexual assault perpetrated by a family member or someone known was significantly related to more correct units of information about abuse. In this regard, personal significance and knowledge base may have supported more complete memory (e.g., Bjorklund, 2004; Block et al., 2009). "Survival processing"—that is, the tendency to retain information processed in terms of its survival relevance—might also have been involved (Nairne & Pandeirada, 2008). Note, however, that the sexual assault victims did not indicate greater emotional involvement. Also of interest, a history of sexual assault was not associated with greater error about CSA. To the extent that there have been concerns that a sexual assault history could lead to greater error of report about abuse, our findings (albeit regarding memory for a story, not actual abuse) do not support that concern. Our findings are qualified by the fact that some students with trauma histories may have self-selected out of the study. It will be important to determine whether the findings would be replicated with a more representative sample.

Caveats about our study include the lack of a control group to determine whether free recall affected our cued-recall results. Moreover, our effects at Session 2 reflect the combination of performing free and cued recall in Session 1.

We examined individual differences collapsing across experimental conditions, and thus did not examine possible interactions thereof. Also, ceiling effects might have dampened potential findings (e.g., regarding culpability). Finally, our paradigm differs in important ways from real-life victimization and forensic interviewing. Still, to the extent that some of the processes may overlap, our results may have implications for application. The findings imply that an initial interview helps maintain particularly accurate memory for the crime. Moreover, the findings suggest, albeit quite tentatively, that victims who lie to minimize the abuse or omit information about CSA will still have better memory than those who fail to report or who are not interviewed initially.

Overall, the present research shows that studying memory for CSA information using an experimental paradigm in which participants read a CSA scenario and take the role of the victim is a viable methodology to tap memory processes and individual differences in memory for trauma-related material. Our findings tentatively suggest that a subset of critical questions regarding memory for CSA might be addressed in the laboratory.

# Appendix

This story occurs when you were 7 years old.

You live in a two-bedroom house with your parents on H Street. Today is Saturday. You wake up around 10 am. First off, your mother makes you take a bath. Then, your mother prepares breakfast for you and lets you eat it while watching Saturday morning cartoons. Your mother asks you to clean up your room, which is what you do between 11:00 am and noon.

Around 1:00 pm, your friends Jamie and Chris, two boys, come over. You play video games and chat. Your mother has to go to the grocery store so she leaves you and your friends with your father. After your mother returns, you stop playing video games and play hide and go seek for a while. Your mother bakes cookies while you play. When they are ready, you and your friends each have three cookies. You have so much fun that you finally ask if you can spend the night over at Jamie's house. Your mother gives you permission. Chris calls his parents to ask if he can spend the night as well.

Around 7:00 pm, Jamie's older brother, Tom picks you, Chris, and Jamie up in his truck. This is the first time that you have seen Tom. He is twenty-one years old and is trusted by

your parents. He has helped out your parents with chores around the yard of the house, but you have never seen him. Before you leave your house you grab your teddy bear, as you usually do when you spend the night at a friend's house. Tom decides to take you and your friends to a pizza restaurant in Lower Heights called Angelina's. Since it is Saturday night, there is a 10-minute wait before being seated. Some parents have decided to meet Tom there with their children, Anna and Johnny. You are really happy because you haven't seen them for a long time. The group orders two pizzas, pepperoni and veggie, and Coke. You are really excited about pepperoni pizza. You notice that Tom has three beers along with his meal. You all eat for a while, and around 8:30 pm, Anna and Johnny go home with their parents. Your friend Chris does not feel well. Tom calls Chris's parents and they come to pick him up and take him to his home. Tom then takes you and Jamie to the Globe ice cream parlor on 5th Street around 8:45 pm. Tom puts his arm around you and seems very friendly. His hand often traveled up and down your back and shoulders and to your rear. You felt that this was strange but didn't think about it too much. Around 9:30 pm, you finish eating your ice cream, and Tom decides that it is time to go home. You and Jamie get in the car, and Tom drives you all to Jamie's house on 5th and H Street.

Once you go inside, you and Jamie play checkers and other games and have fun. Jamie tells you that his parents are out of town for the weekend. Around this time, Tom, grabs another beer from the refrigerator in the kitchen and says, "You kids have fun." Tom stands in the kitchen and continues to drink his beer while he watches you continue to play.

Around 11:30 pm, Tom tells you and Jamie that it's time for bed. You and Jamie climb into bunk beds in Jamie's room. Jamie sleeps in the top bunk, and you decide to take the bottom. You are trying to fall asleep when Tom comes into the room. He is tall and is much bigger than you. He stands next to the left side of the bed when he takes down the blanket. You are really surprised that he is doing that. Then he takes your underpants down, and starts to touch you on your private parts. You then realize that he is not wearing pants. He is naked from the waste down. You become really afraid. You realize that what he is doing is probably bad. You tell him, "Don't do that!" but he does not stop touching you inappropriately. You finally start to scream. He squelches that scream within a second by placing his hand over your mouth, and says, "Don't tell, or you'll get in trouble! I can hurt you really bad!" Tom also appears to be touching himself while he is touching you. After a few minutes Tom stops touching you, and pulls your underpants and blanket back up. "Remember, don't tell anyone!" Tom says as he leaves the room. It appears that Jamie sleeps through the entire incident. You cry softly because you do not want to wake Jamie up. After a while you finally fall asleep.

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