

Research Report

HOW PLEASANT WAS YOUR CHILDHOOD? Beliefs About Memory Shape Inferences From Experienced Difficulty of Recall

Piotr Winkielman¹ and Norbert Schwarz²

¹University of Denver and ²University of Michigan, Ann Arbor

Abstract—People's beliefs about how memory works can affect their inferences from experienced difficulty of recall. Participants were asked to recall either 4 childhood events (experienced as an easy task) or 12 childhood events (experienced as a difficult task). Subsequently, they were led to believe that either pleasant or unpleasant periods of one's life fade from memory. When the recall task was difficult (12 events), participants who believed that memories from unpleasant periods fade away rated their childhood as less happy than participants who believed that memories from pleasant periods fade away. The opposite pattern was observed when the recall task was easy (4 events). This interplay of recall experiences and memory beliefs suggests that the judgmental impact of subjective experiences is shaped by beliefs about their meaning. It also suggests that the recall difficulty in clinical memory work may lead a person to make negative inferences about his or her childhood, provided the person shares the popular belief that memory represses negative information.

According to popular models of human judgment, evaluations of a given target are based on accessible descriptive information that can be recalled from memory (for a review, see Higgins, 1996). Recent research has challenged this exclusive focus on descriptive information and highlighted the observation that memory recall renders two distinct sources of information available: the recalled content and the subjective experience of ease or difficulty with which this content was brought to mind (for reviews, see Jacoby, Kelley, & Dywan, 1989; Schwarz, 1998).

Subjective experiences can influence evaluations of a target via inferences based on relevant beliefs about memory (Skurnik, Schwarz, & Winkielman, 2000). Previous research has addressed two of these meta-memory beliefs. One belief, which is at the heart of Tversky and Kahneman's (1973) availability heuristic, holds that it is easier to recall examples of events that are frequent rather than rare in the world. Accordingly, individuals use the experienced ease or difficulty of recall to infer the frequency of events in the world, unless the informational value of the recall experience is called into question through misattribution manipulations (e.g., Schwarz et al., 1991). Another meta-memory belief holds that it is easy to recall examples from categories that are well represented rather than poorly represented in memory. Accordingly, individuals use the ease or difficulty of recall to infer how much information about a category is stored in memory. For example, participants who had to recall 12 childhood events subsequently rated their childhood memory as less complete than participants who had to recall only 4 events, despite the fact that they had just recalled three times as many events. Apparently, the experienced difficulty of recall suggested to participants that their childhood mem-

ory must be poor, or else recall would not be difficult. This interpretation is supported by the fact that the impact of recall experiences was eliminated when participants were led to attribute the experienced difficulty to the nature of the task (Winkielman, Schwarz, & Belli, 1998).

In previous studies, subjective recall experiences were brought to bear on frequency-related judgments, pertaining to either the number of events in the real world or the number of events stored in memory (see Schwarz, 1998, for a review). The present research extends the exploration of the informational functions of recall experiences beyond frequency judgments to evaluative judgments. In addition, in previous studies, the recall experiences were always directly relevant to the immediate judgmental domain. In contrast, the present research explored whether subjective recall experiences can be used to make judgments of a related, but different domain. Specifically, we tested if individuals would use their general difficulty in recalling childhood events in evaluating the pleasantness of their childhood when a relevant meta-memory belief was rendered accessible. This issue not only is of theoretical interest, but also has potentially important implications in the context of the current discussion of repressed childhood memories.

“HOW HAPPY WAS YOUR CHILDHOOD?”

Although lay intuitions suggest that people “know” their past and may simply retrieve an answer from memory when asked how happy their childhood was, a large body of psychological research indicates otherwise. When answering questions about their past, people rely on a combination of complex recall processes, current beliefs, and inferential rules that allow them to integrate the various sources of information into the final judgment (for reviews, see Johnson & Sherman, 1990; Ross, 1989; Schwarz & Strack, 1999). The present research explored one such judgmental strategy. Our exploration was stimulated by the current public discussions about repressed childhood memories.

The concept of repression entails a specific meta-memory belief, namely, that memory either “eliminates” or “hides” negative events, rendering recall unlikely under normal circumstances (Lindsay & Read, 1994). This belief is widespread in the self-help literature (Lof-tus, 1993). For example, Lew (1988) wrote, “When an adult tells me that he can't remember whole chunks of his childhood, I assume the likelihood of some sort of abuse. Memories are blocked for a reason. That reason is usually protective” (p. 101). A similar meta-memory belief is shared by some health professionals. For example, 57% of a sample of graduate students in education, nursing, and various health occupations endorsed the statement that “a spotty portion of memories can often mean something traumatic has occurred” (Garry, Loftus, Brown, & DuBreuil, 1997).

One implication of holding this meta-memory belief is that persons may infer that they must have had negative childhood experiences when they attempt to recall childhood events and find the task diffi-

Address correspondence to Piotr Winkielman, Department of Psychology, University of Denver, Denver, CO 80208; e-mail: pwinkiel@du.edu.

cult. Yet, as we observed in our earlier childhood memory study (Winkielman et al., 1998), anybody is likely to experience considerable recall difficulty once the recall task exceeds a few events. Hence, a prompt to recall many childhood events in combination with an appropriate meta-memory belief may be sufficient to elicit negative inferences about the pleasantness of one's childhood.

The present study was designed to test this possibility. At the outset, we emphasize that this study does not bear on whether or not negative childhood events are repressed in memory (for a review of this literature, see Lindsay & Read, 1994). This study solely addresses the possibility that people who assume that negative events are purged from memory may infer from an experience of recall difficulty that their childhood must have been unpleasant. After all, why else would they find it difficult to bring childhood memories to mind? Specifically, we asked participants to recall either 4 (easy task) or 12 (difficult task) childhood events, without further instructions with regard to the happy or sad quality of these events. Following this recall task, we manipulated the meta-memory beliefs that participants might bring to bear on their subjective recall experiences. We suggested to some participants that unpleasant events might be difficult to remember because people avoid thinking about the "bad stuff," making it difficult to recall details of unpleasant periods. In contrast, we suggested to other participants that pleasant events might be difficult to remember because people do not ruminate about the "good stuff," making it difficult to recall details of pleasant periods. We expected that participants who had to recall 12 events, a difficult task, would evaluate their childhood more negatively when the accessible meta-memory belief entailed that negative life periods are difficult to remember than when it entailed that positive life periods are difficult to remember. We also expected that this pattern would be reversed for participants who had to recall only 4 events, an easy task. Note, however, that the induced meta-memory beliefs focused on recall difficulty, making it likely that experienced recall difficulty would be more influential than experienced ease of recall.

PRETEST

A pretest examined default beliefs about the relation between memory and childhood pleasantness among undergraduate students. We asked 100 participants to specify which statement better reflected their opinion: (a) "A pleasant childhood is difficult to remember" or (b) "An unpleasant childhood is difficult to remember." Fifty-one percent of the participants endorsed the former statement, whereas 49% endorsed the latter, suggesting that the meta-memory beliefs we wanted to manipulate are roughly equal in popularity.

METHOD

The participants, 395 undergraduate students (49% women, 51% men; mean age = 19 years) randomly assigned to conditions, answered a questionnaire in groups ranging from 5 to 20 people. The first page presented the manipulation of recall difficulty and asked participants to list either 4 (*easy*) or 12 (*difficult*) events. Space was provided to list 2 or 6 events, respectively, that occurred when participants were 5 to 7 years old and an additional 2 or 6 events, respectively, that occurred when they were 8 to 10 years old. The next page included the manipulation of meta-memory beliefs. All participants read:

In our past research we found that some people find it very easy to recall their childhood, whereas others find it very difficult. We are interested in what is re-

sponsible for this difference. Some psychologists have suggested that extended periods of life may sometimes fade from the memory.

The paragraph that followed varied between groups. In the *pleasant-childhood-is-difficult-to-remember* condition, participants read:

If nothing particularly dramatic happened, and life went along smoothly, there's very little to ruminate about in great detail. As a result, such relatively uneventful periods of life do not leave detailed memory traces and eventually fade away, along with other material related to them. Thus, a pleasant childhood may be difficult to remember later on.

In the *unpleasant-childhood-is-difficult-to-remember* condition, participants read:

If a period of life was painful, sad, lonely, or otherwise unpleasant, we often avoid thinking about it in great detail. As a result, the memory traces for such periods are never refreshed and eventually fade away, along with other material related to them. Thus, an unpleasant childhood may be difficult to remember later on.

In both conditions, the respective paragraph continued,

So far, however, all of this research has been based on patients in psychotherapy, and it is uncertain if the findings generalize to the population in general. That is, we do not know if having a pleasant [unpleasant, respectively] childhood generally leads to poorer childhood memory or if this finding is a side effect of other conditions. Hence, we would like to learn more about your childhood.

Following these instructions, participants evaluated their childhood by responding to five questions along 7-point rating scales:

1. How pleasant was your childhood? (from *very unpleasant* to *very pleasant*)
2. How often did you feel sad in your childhood? (from *almost never* to *very often*)
3. How often did you feel happy in your childhood? (from *almost never* to *very often*)
4. How often did you feel worried in your childhood? (from *almost never* to *very often*)
5. How often did you feel care-free in your childhood? (from *almost never* to *very often*)

An index of reported childhood happiness (Cronbach's alpha = .85) was formed by adding ratings for Items 1, 3, 5 and subtracting ratings for Items 2 and 4. Higher scores indicate a happier childhood (possible range: -11 to +19).

Subsequently, all participants were asked which statement better reflected their opinion: "A pleasant childhood is difficult to remember" or "An unpleasant childhood is difficult to remember." They also reported their age and gender. Finally, participants assigned to the 4-events condition were asked to recall an additional 8 events from their childhood.¹ After completing the questionnaire, all participants were thoroughly debriefed about the nature of the study.

1. We requested 8 additional examples in the 4-events condition so that in both task conditions we could exclude participants who could not list 12 events. This ensured that results would reflect differences in recall experience, rather than experience of failing to live up to the task. As in our earlier studies, about 10% of the participants (38) did not list 12 events and were excluded from the remaining analyses. Analyses that included all participants showed the same pattern of findings as reported here.

RESULTS

Manipulation Check

Our manipulation of participants' meta-memory beliefs was successful: At the conclusion of the experiment, 56% of participants who read that an unpleasant childhood may be difficult to remember endorsed that statement as their own opinion, whereas 66% of participants who read that a pleasant childhood may be difficult to remember endorsed that statement as their own opinion, $\chi^2(2, N = 355) = 15.9, p < .001$.

Judgments of Childhood Pleasantness

Analysis of variance on participants' reported childhood happiness revealed the predicted interaction of recall experience and suggested meta-memory belief, $F(1, 357) = 4.53, p < .05$. Participants for whom recall was difficult (12 events) rated their childhood as significantly happier when the belief manipulation suggested that pleasant ($M = 11.96, SD = 5.0$) rather than unpleasant ($M = 10.20, SD = 6.14$) childhood events are difficult to remember, $t(167) = 2.04, p < .05$. Participants for whom recall was easy (4 events) rated their childhood as nonsignificantly happier when the manipulation suggested that unpleasant ($M = 10.58, SD = 5.39$) rather than pleasant ($M = 9.82, SD = 5.74$) childhood events are difficult to remember, $t(187) = 0.97, n.s.$

DISCUSSION

On the theoretical side, the present findings support the conclusion that the inferences drawn from subjective recall experiences are shaped by people's meta-memory beliefs. Participants who had to recall 12 childhood events, a difficult task, inferred that their childhood was happier when they believed that pleasant periods of one's life are difficult to recall than when they believed that unpleasant periods are difficult to recall. Thus, the same subjective recall experience resulted in opposite inferences, depending on the accessible meta-memory belief. This finding extends current understanding of the informational value of subjective recall experiences beyond the domain of frequency-related judgments, which were the focus of previous research (for a review, see Schwarz, 1998). Specifically, the results suggest that people may use their phenomenal experiences to make a variety of judgments as long as they have a naive belief that links the experience to the relevant judgment dimension.

As expected, experienced difficulty of recall had a more pronounced impact than experienced ease of recall. Although participants' judgments in the 4-events condition showed the predicted pattern, the observed difference was not significant. On the one hand, this may reflect the fact that our belief inductions focused on difficulty rather than ease. On the other hand, we observed in our earlier research that participants generally expect the recall of childhood events to be easy (Belli, Winkielman, Read, Schwarz, & Lynn, 1998; Winkielman et al., 1998). Hence, the experience of recall difficulty may be unexpected. If so, difficulty of recall may be more likely to trigger a search for explanations, thus increasing the likelihood that participants draw on relevant naive beliefs (Wong & Weiner, 1981).

On the applied side, the present findings have some potentially important clinical implications. Note that in some therapeutic settings clients are asked to recall a large number of childhood events, and thus

are likely to experience recall difficulty (Belli et al., 1998; Lindsay & Read, 1994). Note also that in these settings, and in much of the self-help literature, clients are exposed to a view of childhood memory according to which negative (traumatic) events tend to be repressed and difficult to remember (Garry et al., 1997; Loftus, 1993). Note that this view is usually conveyed in more certain terms than was the case in the present study. Recall that we attenuated demand effects by informing participants that previous findings bearing on the relationship between recall difficulty and childhood quality were based on a special population, namely, "patients in psychotherapy." We also emphasized that "it is uncertain if the findings generalize to the population in general. That is, we do not know if having a pleasant [unpleasant, respectively] childhood generally leads to poorer childhood memory or if this finding is a side effect of other conditions." Nevertheless, our participants adopted the suggested meta-memory belief and used the recent experience of recall difficulty accordingly to infer their past happiness. Thus, our findings suggest that a client who both experiences recall difficulty and shares the popular belief that negative events are difficult to remember may incorrectly conclude that his or her childhood was unhappy—perhaps falsely confirming the suspicions that led the person into therapy in the first place.

Admittedly, our data do not bear on the question of the extent and duration of changes in meta-memory beliefs and judgments of one's past. However, autobiographical memory research suggests that people may recruit additional supportive evidence, thereby stabilizing their induced negative evaluations of their past (for reviews, see Johnson & Sherman, 1990; Ross & Wilson, 2000). To safeguard against such consequences, practitioners should inform clients that most people find it difficult to recall childhood events, thus allowing clients to (correctly) attribute the experienced difficulty to the nature of the task rather than the quality of their childhood (see Winkielman et al., 1998). Moreover, practitioners may want to examine clients' meta-memory beliefs and identify potential biasing inferences.

Acknowledgments—We thank Robert Belli, John Cacioppo, Gwen Dewar, Jeff Grubb, Tedra Fazendeiro, and Dolly Renick for help at various stages. Data collection was supported by a postdoctoral fellowship from the Ohio State University Graduate School to Piotr Winkielman.

REFERENCES

- Belli, R.F., Winkielman, P., Read, J.D., Schwarz, N., & Lynn, S.J. (1998). Recalling more childhood events leads to judgments of poorer memory: Implications for the recovered/false memory debate. *Psychonomic Bulletin & Review*, 5, 318–323.
- Garry, M., Loftus, E.F., Brown, S.W., & DuBreuil, S.C. (1997). Womb with a view: Memory beliefs and memory-work experiences. In D.G. Payne & F.G. Conrad (Eds.), *Intersections in basic and applied memory research* (pp. 233–255). Mahwah, NJ: Erlbaum.
- Higgins, E.T. (1996). Knowledge: Accessibility, applicability, and salience. In E.T. Higgins & A.W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133–168). New York: Guilford Press.
- Jacoby, L.L., Kelley, C.M., & Dywan, J. (1989). Memory attributions. In H.L. Roediger & F.I.M. Craik (Eds.), *Varieties of memory and consciousness: Essays in honor of Endel Tulving* (pp. 391–422). Hillsdale, NJ: Erlbaum.
- Johnson, M.K., & Sherman, S.J. (1990). Constructing and reconstructing the past and the future in the present. In E.T. Higgins & R.M. Sorrentino (Eds.), *Handbook of motivation and cognition* (Vol. 2, pp. 482–526). New York: Guilford.
- Lew, M. (1988). *Victims no longer: Men recovering from incest and other sexual child abuse*. New York: Nevraumont Publishers.
- Lindsay, D.S., & Read, J.D. (1994). Psychotherapy and memories of childhood sexual abuse: A cognitive perspective. *Applied Cognitive Psychology*, 8, 281–338.
- Loftus, E.F. (1993). The reality of repressed memories. *American Psychologist*, 48, 518–537.
- Ross, M. (1989). Relation of implicit theories to the construction of personal histories. *Psychological Review*, 96, 341–357.

- Ross, M., & Wilson, A.E. (2000). Constructing and appraising past selves. In D.L. Schacter & E. Scarry (Eds.), *Memory, brain, and belief* (pp. 231–259). Cambridge, MA: Harvard University Press.
- Schwarz, N. (1998). Accessible content and accessibility experiences: The interplay of declarative and experiential information in judgment. *Personality and Social Psychology Review*, 2, 87–99.
- Schwarz, N., Bless, H., Strack, F., Klumpp, G., Rittenauer-Schatka, H., & Simons, A. (1991). Ease of retrieval as information: Another look at the availability heuristic. *Journal of Personality and Social Psychology*, 61, 195–202.
- Schwarz, N., & Strack, F. (1999). Reports of subjective well-being: Judgmental processes and their methodological implications. In D. Kahneman, E. Diener, & N. Schwarz (Eds.), *Well-being: The foundations of hedonic psychology* (pp. 61–84). New York: Russell-Sage.
- Skurnik, I., Schwarz, N., & Winkielman, P. (2000). From feelings to judgments: The role of naive beliefs. In H. Bless & J. Forgas (Eds.), *The message within: The role of subjective experience in social cognition and behavior* (pp. 162–175). Philadelphia: Psychology Press.
- Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, 5, 207–232.
- Winkielman, P., Schwarz, N., & Belli, R.F. (1998). The role of ease of retrieval and attribution in memory judgments: Judging your memory as worse despite recalling more events. *Psychological Science*, 9, 124–126.
- Wong, P.T., & Weiner, B. (1981). When people ask “why” questions, and the heuristics of attributional search. *Journal of Personality and Social Psychology*, 40, 650–663.

(RECEIVED 5/30/00; REVISION ACCEPTED 7/28/00)