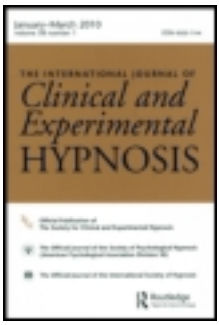

International Journal of Clinical and Experimental Hypnosis

Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/nhyp20

# Specific autobiographical memory following hypnotically induced mood state

Fiona Maccallum [a], Kevin M. McConkey [a], Richard A. Bryant [a] & Amanda J. Barnier [a]

[a] School of Psychology, University of New South Wales, Sydney, Australia

Version of record first published: 31 Jan 2008

To cite this article: Fiona Maccallum, Kevin M. McConkey, Richard A. Bryant & Amanda J. Barnier (2000): Specific autobiographical memory following hypnotically induced mood state, International Journal of Clinical and Experimental Hypnosis, 48:4, 361-373

To link to this article: http://dx.doi.org/10.1080/00207140008410366

# SPECIFIC AUTOBIOGRAPHICAL MEMORY FOLLOWING HYPNOTICALLY INDUCED MOOD STATE[1]

FIONA MACCALLUM, KEVIN M. McCONKEY, RICHARD A. BRYANT, AND AMANDA J. BARNIER[2]

*School of Psychology, University of New South Wales, Sydney, Australia*

**Abstract:** This study investigated the impact of hypnotically induced mood on the specificity of autobiographical memory. High ($n = 24$) and low ($n = 21$) hypnotizable participants were administered a hypnotic induction for sad, neutral, or happy mood and were asked to retrieve specific autobiographical memories in response to positive and negative cue words. Whereas high hypnotizable participants in the sad condition provided fewer specific memories in response to positive rather than negative cues, those in the neutral and happy conditions responded similarly to positive and negative cues. Findings suggest that impaired recall of specific memories may be mediated by state factors associated with sad mood. These results point to the utility of hypnotic mood induction as a means to experimentally investigate the relationship between mood and autobiographical memory.



Autobiographical memories are indexed typically by providing subjects with cue words and requesting recall of a specific personal memory in response to the cue (Robinson, 1976; Rubin, 1986). There is substantial evidence that depression is associated with impaired retrieval of specific autobiographical memories and particularly poor retrieval of positive memories (Brittlebank, Scott, Williams, & Ferrier, 1993; Kuyken & Brewin, 1995; Williams & Scott, 1988). For example, Williams and Scott (1988) found that when depressed patients were presented with positive and negative cue words, they displayed more impaired retrieval of specific memories than did controls; this impairment was greater for positive than for negative cues.

The mechanisms that mediate this deficit have not been defined clearly. Current theorizing proposes that autobiographical memory is organized hierarchically, and that retrieval of specific memories depends on continued retrieval processing until a memory is accessed

Manuscript submitted June 15, 1999; final revision received November 23, 1999.

[1]This research was supported in part by a grant from the Australian Research Council to Kevin M. McConkey.

[2]Address correspondence to Kevin M. McConkey, School of Psychology, University of New South Wales, Sydney 2052, Australia or k.mcconkey@unsw.edu.au.

The *International Journal of Clinical and Experimental Hypnosis*, Vol. 48, No. 4, October 2000 361-373

(Conway, 1996; Rubin, 1986). From this perspective, depressives display greater deficits in recalling positive rather than negative memories, because the greater effort required to access positive memories during depression results in searches being aborted prior to accessing the sought after memory (Williams, 1996). Various theorists have proposed also that the impaired retrieval of specific memories observed in depressives reflects a cognitive style that predisposes them to depression (Brittlebank et al., 1993); specifically, that an overgeneral retrieval pattern is a trait-like characteristic of people who developed depression. This interpretation is supported by evidence of comparable retrieval patterns in both current and recovered depressives (Williams & Dritschel, 1988). Brittlebank et al. tested depressed patients immediately after diagnosis and 7 months later and found no differences between those who had recovered and those who had not. Moreover, Kuyken and Brewin (1995) reported a relationship between childhood abuse and overgeneral retrieval patterns in adults who subsequently develop depression (Kuyken & Brewin, 1995). Although these findings suggest that the specificity impairment may be independent of current mood, the use of clinically depressed patients precludes separating the effect of mood from the effects of the depressed syndrome (Burt, Zembar, & Niederehe, 1995).

Hypnotic suggestion for mood induction provides an effective means to study the influence of temporary mood states on specific autobiographical memory. Hypnosis has played a significant role in the experimental induction of emotion in studies that have investigated a range of mood-related phenomena (Blum & Barbour, 1979; Bower, 1981). Specifically, hypnotic mood induction can effectively elicit subjectively compelling and sustained emotional states in high hypnotizable participants (Bryant & McConkey, 1989; Friswell & McConkey, 1989). The aim of our study was to investigate the influence of mood on specificity of autobiographical recall by hypnotically inducing mood states in nonclinical participants. This approach has the advantage of separating the effects of mood from that of other factors associated with clinical disorders. It also permits comparison of the influence of other mood states on specificity of recall. On the basis of evidence that high rather than low hypnotizable individuals experience hypnotically induced mood states more intensely (Friswell & McConkey, 1989), we used high and low hypnotizable participants to compare the effects of the mood induction.

In our study, we hypnotically induced sad and happy mood states to test the influence of mood valence on specificity of recall; also, we induced a neutral mood to obtain a baseline that would permit comparison with the affectively intense states. Following mood induction, participants provided a specific personal memory in response to five positive and five negative cue words. On the premise that the cognitive load associated with dysphoric mood impairs retrieval strategies that may

access positive memories, we hypothesized that high hypnotizable participants in the sad mood condition would display fewer specific memories to positive than to negative cues. In contrast, we predicted that the less demanding cognitive load associated with happy and neutral mood states would result in high hypnotizable participants in these conditions retrieving comparable numbers of specific memories to positive and negative cues.

## METHOD

### *Participants*

Twenty-four (15 female and 9 male) high hypnotizable participants of mean age 20.17 years ($SD$ = 5.50) and 21 (12 female and 9 male) low hypnotizable participants of mean age 21.10 years ($SD$ = 5.32), who were undergraduate psychology students at the University of New South Wales, Sydney, Australia, were selected on the basis of their scores on the 12-item Harvard Group Scale of Hypnotic Susceptibility, Form A (HGSHS:A; Shor & Orne, 1962) and a 10-item version of the Stanford Hypnotic Susceptibility Scale, Form C (SHSS:C; Weitzenhoffer & Hilgard, 1962). Highs scored in the range 9 to 12 ($M$ = 10.25, $SD$ = 0.99) on the HGSHS:A and 8 to 10 ($M$ = 8.75, $SD$ = 0.79) on the SHSS:C. Lows scored in the range 0 to 4 ($M$ = 2.75, $SD$ = 1.51) on the HGSHS:A and 0 to 3 ($M$ = 1.30, $SD$ = 0.80) on the SHSS:C. There was random allocation of highs ($n$ = 8 per cell) and lows ($n$ = 7 per cell) in each of the sad, neutral, and happy conditions. To exclude participants who experienced marked depression, the Beck Depression Inventory (BDI) (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) was employed as a screening instrument. No participant scored more than 13 on the BDI, and a 2 × 3 (Hypnotizability × Mood) analysis of variance (ANOVA) of BDI scores indicated no significant differences in depression among conditions.

### *Materials*

The cue words were five positive words (*gift, compliment, helpful, friendly,* and *smile)* and five negative (*disappointed, mistake, argument, angry,* and *lonely*) words that were matched for word frequency and emotionality (John, 1988). The words were presented orally in the order listed, with positive and negative words alternating; half the participants in each condition received a positive cue word first, and half received a negative cue word first.

### *Procedure*

Following informed consent, the experimenter administered a standard hypnotic induction and three standard hypnotic test items and then obtained two subjective and one behavioral measure of mood (Time 1). The subjective measures were ratings of happiness (0 = *not at all happy*, 100 = *extremely happy*) and sadness (0 = *not at all sad*, 100 = *extremely*

*sad*). The behavioral measure required participants to count from 1 to 10; the experimenter used a stopwatch to record the time (in seconds) that it took subjects to complete this task (from the onset to offset of counting). Slowed rate of speech is associated with sad mood following mood induction (Bryant & McConkey, 1989).

Depending on mood condition, participants were then told that they would begin to feel a sad, a neutral, or a happy mood state. They were told that they would experience this mood strongly. To further induce this experience, they were read a short passage and asked to identify with the main character. The story involved a person receiving a telephone call from their mother informing them either (a) that their father had been killed (sad condition), or (b) about tasks that were needed for university (neutral condition), or (c) that they had won a lottery (happy condition). Also, the passage involved specific suggestions to feel sad/neutral/happy in accord with their mood condition. Immediately after the suggestion, participants rated the intensity of their mood (1 = *not at all intense*, 10 = *extremely intense*). If they reported intensity less than 7, then the experimenter administered a further suggestion to increase the intensity of the suggested mood. Then they were asked again to rate the intensity of their mood. The two subjective (happiness and sadness ratings) and one behavioral measure (counting speed) of mood were obtained (Time 2).

At this point, participants were administered the autobiographical memory cueing task. They were told to report the first specific personal memory triggered by each cue word. They were told that a specific memory was "any single event that you were directly involved in that lasted less than one day and that occurred at a particular time and place." Their responses were audiotaped. If participants provided a general memory (e.g., "I am always angry"), then they were prompted to recall one particular event (e.g., "I want you to recall a specific incident that the word reminds you of"). If participants did not retrieve a specific memory within 60 seconds, then they were scored as having no memory and the next cue word was presented. After the 10 cue words had been presented, the subjective and behavioral measures of mood were obtained for the last time (Time 3). After this, the mood suggestion was cancelled, and some additional hypnotic test items and the hypnotic deinduction procedure were administered. Posthypnotically, participants commented on their experiences during the mood suggestion and autobiographical memory task and rated the intensity (1 = *not at all intense*, 10 = *extremely intense*) and genuineness of their induced mood (1 = *not at all genuine*, 10 = *extremely genuine*).

*Scoring*

The experimenter and an independent rater, who was blind to group status and experimental hypotheses, independently coded audiotaped responses for specificity (general or specific). High levels of interrater

Table 1
*Mean Sadness and Happiness Ratings and Mean Counting Speed*

| | Time 1 (Before Mood Induction) | Time 2 (After Mood Induction) | Time 3 (After Memory Task) |
|---|---|---|---|
| | | *Sadness Ratings* | |
| High Hypnotizable | | | |
| Sad | 41.25 (26.95) | 73.13 (6.51) | 56.88 (21.20) |
| Neutral | 28.13 (21.70) | 30.87 (21.05) | 36.25 (23.26) |
| Happy | 27.50 (22.99) | 11.25 (9.54) | 23.50 (15.93) |
| Low Hypnotizable | | | |
| Sad | 17.85 (17.99) | 22.85 (20.38) | 22.00 (16.97) |
| Neutral | 30.28 (17.67) | 35.00 (22.54) | 27.14 (23.43) |
| Happy | 25.83 (12.01) | 13.00 (8.94) | 15.67 (11.18) |
| | | *Happiness Ratings* | |
| High Hypnotizable | | | |
| Sad | 60.50 (19.06) | 24.38 (14.00) | 23.75 (15.98) |
| Neutral | 57.38 (25.45) | 40.00 (23.75) | 40.75 (13.26) |
| Happy | 70.63 (12.25) | 87.50 (5.35) | 75.63 (14.74) |
| Low Hypnotizable | | | |
| Sad | 64.29 (16.93) | 55.43 (29.99) | 59.43 (28.32) |
| Neutral | 66.86 (16.06) | 59.29 (16.44) | 63.57 (17.01) |
| Happy | 79.17 (5.07) | 82.83 (12.01) | 79.17 (5.85) |
| | | *Counting Speed* | |
| High Hypnotizable | | | |
| Sad | 13.47 (3.25) | 12.79 (3.56) | 11.48 (4.36) |
| Neutral | 13.05 (2.83) | 11.80 (2.29) | 11.71 (3.48) |
| Positive | 15.48 (3.84) | 10.88 (4.43) | 11.43 (5.15) |
| Low Hypnotizable | | | |
| Sad | 10.53 (3.84) | 10.35 (4.19) | 8.20 (5.20) |
| Neutral | 13.65 (4.76) | 11.11 (2.27) | 11.24 (2.71) |
| Happy | 10.81 (3.08) | 9.20 (2.92) | 8.17 (2.71) |

*Note.* For ratings, 0 = *not at all sad/happy*, and 100 = *extremely sad/happy*. For counting speed, time is in seconds. Standard deviations appear in parentheses.

reliability were found for each cue word (range of Kappa statistic, .88 to 1.00). Following previous studies of mood-related autobiographical memory, the ratings made by the experimenter were used for analyses because of the high interrater Kappa values (Croll & Bryant, in press).

## Results

### *Mood Induction*

Table 1 presents the mean sadness and happiness ratings and mean counting speeds. Separate 2 × 3 (Hypnotizability × Mood) ANOVAs of

Time 1 sadness and happiness ratings indicated no differences before the mood suggestion in terms of hypnotizability, $F(1, 43) = 1.45$, $p > .20$, mood, $F(2, 43) = 0.08$, $p > .20$, and hypnotizability and mood, $F(2, 43) = 1.61$, $p > .20$. We note, however, that highs ($M = 41.25$) in the sadness condition provided marginally higher sadness ratings at Time 1 than did lows ($M = 17.85$), $t(13) = 1.94$, $p < .08$.

In terms of sadness ratings, a 2 × 3 × 3 (Hypnotizability × Mood × Time) repeated measures ANOVA indicated significant main effects for hypnotizability, $F(1, 38) = 8.73$, $p < .01$, and mood, $F(2, 38) = 6.31$, $p < .01$, and significant interaction effects between hypnotizability and mood, $F(2, 38) = 6.68$, $p < .01$, and mood and time, $F(4, 76) = 4.60$, $p < .01$. Whereas the sadness ratings of participants in the sad condition increased following the mood suggestion, those of participants in the neutral and happy conditions did not. Further, the difference in sadness ratings between participants in the sad condition and those in the neutral and happy conditions was greater for high hypnotizable subjects than for lows. In terms of happiness ratings, a 2 × 3 × 3 (Hypnotizability × Mood × Time) repeated measures ANOVA indicated significant main effects for hypnotizability, $F(1, 38) = 9.76$, $p < .01$, and mood, $F(2, 38) = 16.51$, $p < .001$, and significant interaction effects between hypnotizability and time, $F(2, 76) = 3.65$, $p < .01$, mood and time, $F(4, 76) = 7.86$, $p < .01$, and hypnotizability, mood, and time, $F(4, 76) = 3.33$, $p < .05$. Whereas the happiness ratings of participants in the happy condition increased following the mood suggestion, those of participants in the neutral and sad conditions did not. Highs in the sad condition showed a larger decrease in happiness ratings following mood suggestion than did lows.

On the basis that highs in the sadness condition reported marginally higher sadness ratings prior to the induction than lows, we reanalyzed the effectiveness of the mood induction controlling for sadness ratings at Time 1. A 2 × 3 (Hypnotizability × Mood) ANCOVA of sadness ratings at Time 2 indicated significant main effects for hypnotizability, $F(1, 37) = 7.16$, $p < .05$, mood, $F(1, 37) = 18.79$, $p < .001$, and a significant interaction effect between hypnotizability and mood, $F(2, 37) = 10.50$, $p < .001$. A 2 × 3 (Hypnotizability × Mood) ANCOVA of happiness ratings at Time 2 indicated significant main effects for hypnotizability, $F(1, 37) = 5.27$, $p < .05$, mood, $F(1, 37) = 21.94$, $p < .001$, and a significant interaction effect between hypnotizability and mood, $F(2, 37) = 6.45$, $p < .005$. That is, entering Time 1 sadness ratings as a covariate did not alter the initial findings concerning the influence of mood induction on Time 2 sadness ratings or happiness ratings.

In terms of counting speed, a 2 × 3 (Hypnotizability × Mood) ANOVA of Time 1 counting speed indicated no differences before the mood induction. A 2 × 3 × 3 (Hypnotizability × Mood × Time) repeated measures ANOVA indicated a significant main effect for time, $F(2, 76) = 22.55$, $p < .001$, and a significant interaction effect between mood and time, $F(4, 76) =$

Table 2
*Mean Mood Intensity and Genuineness Ratings*

| | Intensity | Genuineness |
|---|---|---|
| High Hypnotizable | | |
| Sad | 7.38 (0.52) | 7.63 (1.30) |
| Neutral | 5.93 (1.21) | 8.63 (1.19) |
| Positive | 7.75 (0.71) | 7.38 (1.77) |
| Low Hypnotizable | | |
| Sad | 2.50 (0.87) | 4.17 (3.60) |
| Neutral | 5.00 (1.91) | 6.43 (1.90) |
| Happy | 6.58 (1.42) | 6.75 (2.68) |

*Note.* For intensity ratings, 1 = *not at all intense*, 10 = *extremely intense*. For genuineness ratings, 1 = *not at all genuine*, 10 = *extremely genuine*. Standard deviations appear in parentheses.



2.53, $p < .05$. The counting speed of participants increased across measure times. Participants in the happy condition showed a greater increase in counting speed immediately following mood induction than participants in the sad condition. That is, participants in the happy condition displayed a more rapid increase in speech rates than did those in the sad condition.

Table 2 presents the mean mood intensity and genuineness ratings made during the postexperimental inquiry. A 2 × 3 (Hypnotizability × Mood) ANOVA of intensity ratings indicated significant main effects for hypnotizability, $F(1, 38) = 42.77$, $p < .001$, and mood, $F(2, 38) = 13.93$, $p < .001$, and a significant interaction effect between hypnotizability and mood, $F(2, 38) = 13.10$, $p < .001$. Overall, highs ($M = 7.02$, $SD = 1.14$) rated their suggested mood as more intense than did lows ($M = 4.69$, $SD = 1.04$). The difference between highs and lows was not as large in the neutral and happy conditions as in the sad condition. The mean intensity rating of lows in the sad condition indicates that this group did not experience the suggested mood to any meaningful degree. A 2 × 3 (Hypnotizability × Mood) ANOVA of genuineness ratings indicated a significant main effect for hypnotizability, $F(1, 38) = 10.32$, $p < .01$. Highs ($M = 7.88$, $SD = 1.48$) rated their suggested mood as more genuine than lows ($M = 5.82$, $SD = 2.85$). There were no differences between the genuineness ratings of the three mood conditions. Overall, the suggestion induced sad, neutral, and happy mood states in high more so than in low hypnotizable participants. Accordingly, data for the autobiographical memory task were analyzed separately for high and low hypnotizable subjects.

*Memory Specificity*

Figure 1 presents the mean number of specific memories recalled for positive and negative cue words. A 2 × 3 × 2 (Hypnotizability × Mood × Cue) ANOVA indicated a significant main effect for mood, $F(2, 38) =$

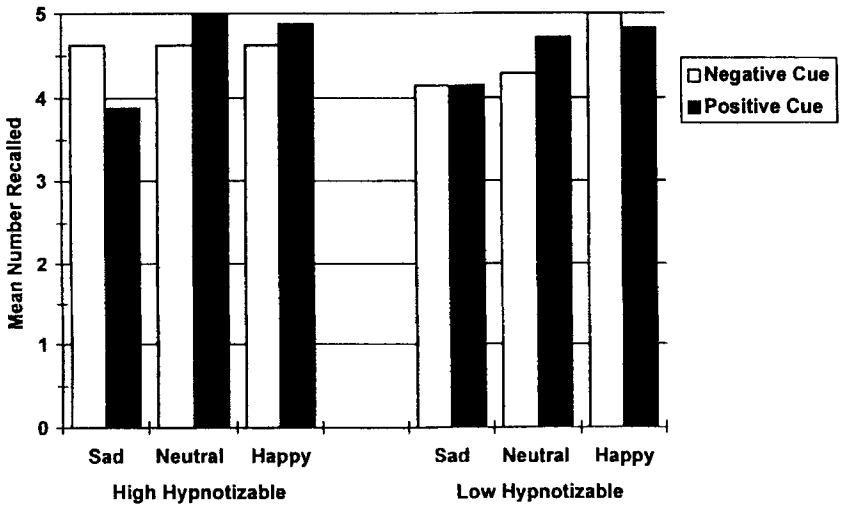


*Figure 1.* **Mean number of specific memories recalled.**

4.95, $p < .05$, and a significant Mood × Cue interaction effect, $F(2, 38) = 3.38$, $p < .05$. Specifically, there were fewer specific memories recalled in response to positive cues in the sad condition than in the neutral and happy conditions. To test the prediction that there would be a differential pattern of responding for highs and lows, we then conducted separate 3 × 2 (Mood × Cue) ANOVAs for highs and lows. This analysis was justified by (a) the possibility that low power contributed to a lack of a significant hypnotizability effect, and (b) the finding that lows did not experience the suggested mood states to the same extent as highs. In terms of highs, a 3 × 2 (Mood × Cue) ANOVA indicated a significant interaction effect, $F(2, 21) = 4.29$, $p < .05$. In the sad condition, participants recalled fewer specific memories in response to positive cues ($M = 3.88$, $SD = 0.83$) than to negative cues ($M = 4.63$, $SD = 0.74$), whereas, in the neutral condition, participants recalled more specific memories in response to positive cues ($M = 5.00$, $SD = 0.00$) than to negative cues ($M = 4.63$, $SD = 0.74$). There was no difference in the happy condition. For lows, a 3 × 2 (Mood × Cue) ANOVA yielded no significant effects.

## Discussion

We investigated the influence of hypnotically induced mood on the specificity of autobiographical memory. Whereas high hypnotizable subjects in the sad condition provided fewer specific memories in response to positive rather than negative cues, those in the neutral condition provided more specific memories in response to positive rather

than negative cues. High hypnotizable participants in the happy condition responded similarly to positive and negative cues. Low hypnotizable participants, who did not experience the induced moods, displayed no differences across the conditions.

Our primary finding that high hypnotizable participants in the sad condition had impaired access to positive specific memories is consistent with previous findings that have indicated that clinically depressed individuals have impaired retrieval of specific autobiographical memories, especially in response to positive cues (Brittlebank et al., 1993; Goddard, Dritschel, & Burton, 1996). Recent interpretations of such findings have focused on depressed individuals' cognitive styles as a vulnerability factor that predisposes them to developing depression (Brittlebank et al., 1993; Williams, 1996). That is, it is possible that difficulties in retrieving memories of positive experiences may result in an excessively negative appraisal of one's state, which may contribute to depression. Our finding extends this interpretation by demonstrating that current dysphoric mood plays an appreciable role in the deficit of specific memories. Interpreting these data involves the notion that emotional memories are stored in networks, and that accessing an emotional memory will be dependent in part on the emotional state at the time of attempted retrieval (Bower, 1981). That is, retrieving negative memories will be more difficult during a happy state, and vice versa. It has been suggested that a dysphoric mood may consume more attentional resources than a happy mood, and consequently the greater effort required to access positive memories during a sad mood results in greater interference with memory searching and thus impaired retrieval of these memories (Ellis, Seibert, & Herbert, 1990). The current finding is also consistent with proposals that autobiographical memory deficits in clinical conditions may occur because intrusive thoughts associated with distressing emotional states may consume cognitive capacity that would otherwise be devoted to effortful memory search (Harvey, Bryant, & Dang, 1998; Williams, 1996). Thus, the effort required to complete retrieval processes for happy memories may have been depleted by the attentionally demanding nature of intrusive thoughts experienced during the dysphoric mood.

Our finding that high hypnotizable participants in the neutral condition reported more specific happy memories than sad memories was unexpected. One explanation for this finding is that they may have perceived the hypnotically induced neutral mood as positive because it was associated with relaxing exercises involved in hypnosis. This positive mood state may have predisposed participants to retrieve positive rather than negative memories. This interpretation is problematic, however, because participants in the happy condition retrieved positive and negative memories comparably. It is possible that the more intense mood state in the happy condition depleted resources that could have been allocated towards retrieving positive memories (Kihlstrom, 1989). The

operation of this possible mechanism is supported by evidence that happy mood can impair performance on cognitive tasks (Oaksford, Grainger, Morris, & Williams, 1996).

We recognize that restriction of our analyses to high hypnotizable participants precludes delineation of the effects of hypnotizability and mood. Moreover, the other specific and nonspecific effects of hypnosis may have influenced participants' responses. For example, there is evidence that hypnotic responding can be demanding on attentional resources (Bryant & McConkey, 1990), and such attentional effort may have interacted with the effort required to retrieve personal memories. In addition, there may be other factors associated with different levels of hypnotizability that contribute to particular engagement with suggested moods. For example, whereas low hypnotizable participants reported low intensity following the sadness induction ($M = 2.50$), they reported high intensity after the happy mood induction ($M = 6.58$). This pattern may suggest that responding to sad mood induction is particularly difficult for lows; this difficulty may reflect reduced motivation to commit to a negative mood state, limited ability to engage in sadness-eliciting cognitions, or a combination of these factors.

We recognize also that the differential effects of the mood induction and memory task between highs and lows may reflect the influence of demand characteristics. The marginally different sadness ratings between highs and lows prior to the sadness mood induction may have resulted from different expectations held by highs and lows to the experimental procedure. Our study needs to be replicated with nonhypnotized participants using a variety of mood induction techniques (e.g., Velten procedure or film stimuli, see Blaney, 1986; Continuous Music Technique, see Eich, Macauley, & Ryan, 1994). We acknowledge that the sample size of each cell was not large, and that future studies should employ larger samples to permit closer examination of the types of memories reported in different mood states. For example, more refined measurement of autobiographical memories could be obtained by following Williams's (1996) definition of specific, extended specific, and categorical memories.

Our findings overall indicate that hypnotic mood induction procedures are a useful way of investigating the influence of mood on autobiographical memory processes. Mood induction procedures permit investigation of state processes of autobiographical memory that are independent of chronic features associated with clinical disorders. Hypnotic mood induction procedures permit experimental manipulation of factors that are often not possible in clinical populations. The systematic application of hypnotic mood induction procedures to autobiographical memory study will allow a greater delineation of the processes that mediate impaired retrieval of specific memories.

## REFERENCES

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J. E., & Erbaugh, J. K. (1961). An inventory for measuring depression. *Archives of General Psychiatry, 4*, 561-571.

Blaney, P. H. (1986). Affect and memory: A review. *Psychological Bulletin, 99*, 229-246.

Blum, G. S., & Barbour, J. S. (1979). Selective inattention to anxiety-linked stimuli. *Journal of Experimental Psychology: General, 108*, 182-224.

Bower, G. H. (1981). Mood and memory. *American Psychologist, 36*, 129-148.

Brittlebank, A. D., Scott, J., Williams, J. M. G., & Ferrier, I. N. (1993). Autobiographical memory in depression: State or trait marker? *British Journal of Psychiatry, 162*, 118-121.

Bryant, R. A., & McConkey, K. M. (1989). Hypnotic emotions and physical sensations: A real-simulating analysis. *International Journal of Clinical and Experimental Hypnosis, 37*, 305-319.

Bryant, R. A., & McConkey, K. M. (1990). Hypnotic blindness and the relevance of attention. *Australian Journal of Psychology, 42*, 287-296.

Burt, D. B., Zembar, M. J., & Niederehe, G. (1995). Depression and memory impairment: A meta-analysis of the association, its pattern, and specificity. *Psychological Bulletin, 117*, 285-305.

Conway, M. A. (1996). Autobiographical knowledge and autobiographical memories. In D. C. Rubin (Ed.), *Remembering our past: Studies in autobiographical memory* (pp. 67-93). Cambridge, UK: Cambridge University Press.

Croll, S., & Bryant, R. A. (in press). Autobiographical memory in postnatal depression. *Cognitive Therapy and Research.*

Eich, E., Macauley, D., & Ryan, L. (1994). Mood dependent memory for events of the personal past. *Journal of Experimental Psychology: General, 123*, 201-215.

Ellis, H. C., Seibert, P. S., & Herbert, B. J. (1990). Mood state effects on thought listening. *Bulletin of the Psychonomic Society, 28*, 147-150.

Friswell, R., & McConkey, K. M. (1989). Hypnotically induced mood. *Cognition and Emotion, 3*, 1-26.

Goddard, L., Dritschel, B., & Burton, A. (1996). Role of autobiographical memory in social problem solving and depression. *Journal of Abnormal Psychology, 105*, 609-616.

Harvey, A. G., Bryant, R. A., & Dang, S. T. (1998). Autobiographical memory in acute stress disorder. *Journal of Consulting and Clinical Psychology, 66*, 500-506.

John, C. H. (1988). Emotionality ratings and free-association norms of 240 emotional and non-emotional words. *Cognition & Emotion, 2*, 49-70.

Kihlstrom, J. F. (1989). On what does mood-dependent memory depend? *Journal of Social Behavior and Personality, 4*, 23-32.

Kuyken, W., & Brewin, C. R. (1995). Autobiographical memory functioning in depression and reports of early abuse. *Journal of Abnormal Psychology, 104*, 585-591.

Oaksford, M., Morris, F., Grainger, B., & Williams, J. M. G. (1996). Mood, reasoning, and central executive process. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 22*, 476-492.

Robinson, J. A. (1976). Sampling autobiographical memory. *Cognitive Psychology, 8*, 578-595.

Rubin, D. C. (Ed.) (1986). *Autobiographical memory.* New York: Cambridge University Press.

Shor, R. E., & Orne, E. C. (1962). *Harvard Group Scale of Hypnotic Susceptibility, Form A.* Palo Alto, CA: Consulting Psychologists Press.

Weitzenhoffer, A. M., & Hilgard, E. R. (1962). *Stanford Hypnotic Susceptibility Scale, Form C.* Palo Alto, CA: Consulting Psychologists Press.

Williams, J. M. G. (1996). Depression and the specificity of autobiographical memory. In D. C. Rubin (Ed.), *Remembering our past: Studies in autobiographical memory* (pp. 244-267). Cambridge, UK: Cambridge University Press.

Williams, J. M. G., & Dritschel, B. H. (1988). Emotional disturbance and the specificity of autobiographical memory. *Cognition and Emotion, 2*, 221-234.

Williams, J. M. G., & Scott, J. (1988). Autobiographical memory in depression. *Psychological Medicine, 18*, 689-695.

## Spezifische autobiographische Erinnerung als Folge einer hypnotisch induzierten Stimmung

Fiona Maccallum, Kevin M. McConkey, Richard A. Bryant, und Amanda J. Barnier

**Zusammenfassung: Diese Studie untersuchte den Einfluss von hypnotisch induzierter Stimmung auf die Spezifität von autobiographischer Erinnerung. Durch Hypnose wurde bei hochsuggestiblen ($n$ = 24) und niedrigsuggestiblen Probanden ($n$ = 21) eine traurige, neutrale oder glückliche Stimmung induziert, und es wurde die Aufgabe gestellt, spezifische autobiographische Erinnerungen als Reaktion auf positive und negative Reizwörter abzurufen. Hochsuggestible Probanden in trauriger Stimmung reagierten zwar mit einer geringeren Anzahl spezifischer Erinnerungen auf positive Reizwörter, aber nicht auf negative Reizwörter. Probanden in neutraler und glücklicher Stimmung dagegen reagierten gleichermaßen auf positive und auf negative Reizwörter. Die Ergebnisse deuten an, dass ein Defizit im Abruf von spezifischen Erinnerungen von State-Faktoren beeinflusst sein könnte, die mit trauriger Stimmung in Zusammenhang stehen. Diese Ergebnisse verweisen auf die Brauchbarkeit von Stimmungsinduktion durch Hypnose als ein Mittel, den Zusammenhang zwischen Stimmung und autobiographischer Erinnerung experimentell zu untersuchen.**

ROSEMARIE GREENMAN
*University of Tennessee, Knoxville, TN, USA*

## La mémoire autobiographique spécifique suivant l'étude d'état d'humeur induite hypnotiquement

Fiona Maccallum, Kevin M. McConkey, Richard A. Bryant, et Amanda J. Barnier

**Résumé: Les auteurs ont étudié l'impact de l'humeur hypnotiquement induite sur la spécificité de la mémoire autobiographique. Des sujets hautement hypnotisables ($n$ = 24) et des sujets faiblement hypnotisables ont reçu une induction hypnotique pour entrainer une humeur triste, neutre, ou heureuse et ont été invités à rechercher des mémoires autobiographiques spécifiques en réponse aux mots positifs et négatifs. Considérant que les participants fortement hypnotisables à l'état triste ont fourni peu de mémoires spécifiques en réponse au positif plutôt que des caractères indicateurs négatifs, ceux aux conditions neutres et heureuses ont répondu pareillement aux caractères indicateurs positifs et négatifs. Les résultats suggèrent que le rappel altéré des mémoires spécifiques peut être atténué par des facteurs d'état associés à l'humeur triste. Ces résultats concluent à l'utilité de l'induction d'humeur**

**hypnotique comme un moyen d'étudier expérimentalement le rapport entre l'humeur et la mémoire autobiographique.**

VICTOR SIMON
*Psychosomatic Medicine & Clinical Hypnosis Institute, Lille, France*

## Memoria autobiográfica específica después de un estado de ánimo inducido hipnóticamente

**Fiona Maccallum, Kevin M. McConkey, Richard A. Bryant, y Amanda J. Barnier**

**Resumen: Este estudio investigó el impacto del estado de ánimo inducido hipnóticamente en la especificidad de la memoria autobiográfica. Administramos inducciones hipnóticas de estados de ánimo triste, neutral, o feliz a participantes con alta ($n$ = 24) y baja ($n$ = 21) hipnotizabilidad y les pedimos que recordaran memorias autobiográficas específicas con respecto a palabras estímulo positivas o negativas. En tanto que participantes muy hipnotizables en la condición de tristeza proveyeron menos memorias específicas a estímulos positivos que a negativos, en las condiciones feliz y neutra respondieron a las palabras positivas y negativas en forma similar. La literatura sugiere que un decremento en el recuerdo de memorias específicas puede estar mediado por factores de estado asociado con el estado de ánimo de tristeza. Nuestros resultados muestran la utilidad de la inducción hipnótica de estados de ánimo como un medio para investigar experimentalmente la relación entre dichos estados y la memoria autobiográfica.**

ETZEL CARDEÑA
*University of Texas, Pan Am McAllen, Texas, USA*