Supporting Information

Patihis et al. 10.1073/pnas.1314373110

SI Materials and Methods

Highly Superior Autobiographical Memory. Hundreds of people claiming to have highly superior autobiographical memory (HSAM) contacted the J.L.M. laboratory after national news reports [e.g., *60 Minutes* (1)] of the phenomena. Of these participants, 172 claiming to have HSAM were screened. These participants were identified as HSAM individuals or not, based on our two objective measures of autobiographical memory, the Public Events Quiz (PEQ) and the 10 Dates Quiz (10DQ). The PEQ consisted of 30 questions. The test contained two types of questions: 15 asked for the exact date of a given significant public event that took place within the individual's lifetime; for example, "When did an Iraqi journalist hurl two shoes at President Bush?" The other 15 questions asked for the significant public event that took place on a given date that took place within the individual's lifetime (e.g., what public event occurred on October 11, 2002?). In addition, for all 30 questions, individuals were asked to state the day of the week the date fell on. The significant public events given were selected from five different categories so as to increase the chances that the participant had experienced it. Those categories were sporting events, political events, notable negative events concerning famous people, and holidays. The participant received one point for each correctly identified category (i.e., the event, the day of the week, the month, the date, and the year) and could achieve a total of 88 possible points. A very strict score of 50% or above qualified an individual claiming to have HSAM to advance to the second even more challenging round of screening, the 10 Dates Quiz. Control participants with average memory who did not claim to be HSAM individuals scored an average of 12.63%, 35% maximum. This conservative measure ensured that the HSAM pool contained only those participants who were proficient at accurately recalling event-related information that they had experienced in their lifetime.

The 10DQ consisted of 10 computer-generated random dates, ranging from the individual's age of 15 to the day of testing. Individuals were asked to provide three different categories of information for each of the 10 dates generated: (*i*) the day of the week; (*ii*) a description of a verifiable event (i.e., any event that could be confirmed via a search engine) that occurred within plus or minus 1 mo of the generated date; and (*iii*) a description of a personal autobiographical event the individual participated in on that date. One point was awarded for the correct day of the week, for giving a verifiable event confirmed as true, and for giving a personal autobiographical event. A maximum of three points per date could be achieved (30 points total). A score of 65% or above, representing the average of all three categories, qualified the individual as an HSAM participant. Controls averaged 11.12% on this quiz. This very conservative measure was taken so as to ensure that an HSAM participant was proficient at accurately identifying events, whether in the public or private domain, and the days of the week they occurred.

As a result of testing many participants who thought they might have HSAM, 30 had passed the criteria for HSAM at the time of recruitment (2012) and of these we were able to recruit 21 for the present study. One participant was excluded from this particular article's analysis because of visual impairment, leaving 20 HSAM participants. We recruited 38 age- and sex-matched controls from the general public that were within 4 y in age to their corresponding matched HSAM. Each HSAM had at least one, usually two age- and sex-matched controls. As a result, the mean age in each group was almost identical (HSAM M_{age} = 38.6 y, SD = 10.8, range 21–62 y; controls M_{age} = 39.0 y, SD = 10.5, range 21–60 y; $P = 0.9$).

Memory Distortion. ***Materials background literature.*** We used several well-established paradigms to assess memory distortion in the HSAM population. For example, in the Deese-Roediger and McDermott (DRM) (2, 3) paradigm, participants are shown a list of words that are all related to a word that was not presented, called the critical lure. For example, typically 10 or 15 words are presented, such as "rest," "bed," "nap," "peace," and the critical lure word "sleep" is not shown. In the subsequent memory test, typically a few minutes later, "sleep" is falsely remembered by a remarkably high proportion of participants (recall: 61%; recognition: 80%) (4). This high proportion is much higher than the recognition rates for words that were not presented nor related to presented words (unrelated distractors; recognition rates typically around 20%). This task suggests that memory works in an associative way, whereby one object or event activates a web of objects or events that are related, and that the activation of a related item (5) can be incorporated later as a memory for that item when memory is reconstructed at retrieval.

Another approach for examining false memories is called the "misinformation" paradigm. A typical misinformation paradigm involves a three-phase process. Participants initially view an event stimulus (usually photographs or a video) and are later presented with some misleading information about the event. When subsequently tested, they are asked to report their memories of the original stimulus (6). Often, participants incorporate the misinformation presented at the second phase into their memories of the original event. This result is typically taken as evidence that the source of some acquired information can be confused with the original event, called a source-monitoring error (7), and that memories are reconstructed.

In the nonexistent news-footage (aka "crashing memory") paradigm, participants are falsely told that there is news-footage for a well-known news event. As the name suggests, the event chosen by researchers has often been a crash (8), but has also involved news stories about other types of upsetting events, such as bombings and assassinations (9). Participants are asked whether they remember the footage in a way that strongly implies that such footage exists. A surprisingly high proportion of participants typically report having seen the nonexistent footage (e.g., 55%) (8) and many report details (e.g., 45%) (8), indicating that participants formed a memory rather than just a belief they had seen the nonexistent footage. This paradigm produces one of the closest parallels to real-life traumatic memories that are otherwise either impossible to study because of ethics concerns or difficult to interpret because of uncertainty as to whether the reported event actually occurred. These studies show us that elaborate false memories can be created for upsetting events by postevent information, such as news stories of important disasters, and are not just confined to word lists or misinformation laboratory studies.

Other research on imagination inflation (10) has shown that guided imagery and suggestion can be used either to increase confidence that an unlikely event happened in a participant's personal past or to plant memories of entire events that did not happen. Sometimes these events are mildly upsetting in an attempt to mimic real-life situations, where suggestions are made that something traumatic happened. Moreover, even memory for our past emotions has been shown to be vulnerable to change, tending to shift toward our current appraisal of the original

events (11). All of these research paradigms suggest fallible and malleable reconstruction during memory retrieval.

Memory distortion materials and procedure. In the memory-distortion part of the study, subjects were paid $40 each for ∼3 h of participation. Subjects participated at their home on their own computer, with the researcher connected to them via Skype video-chat or phone for the entirety of both sessions 1 and 2. We required participants to have the computer on a desk and themselves be sitting on a chair. Researchers advised the participants before the study commenced on how to avoid distractions and interruptions. We excluded one participant from this article's analysis because of visual impairment. We excluded one further participant from only the DRM analysis, who indicated they remembered seeing every single word on the test, indicating noncompliance with that part of the study.

To disguise the fact that we were investigating false memories, we gained Internal Review Board approval (University of California at Irvine Institutional Review Board; HS#2011–8038) to tell participants the study was about personality, individuality, and slideshows. The instructions they read briefly mentioned that their memory would also be tested in the study, but the instructions did not mention memory distortion or false memory. This aspect was necessary because subjects' awareness of the topic of the study, memory distortion, can bias their memory reports.

We used well-established validated DRM word-list materials (4), in which we presented 20 15-word lists (the study phase) and a few minutes later tested their recognition (Fig. 1). The lists used in this study had the following critical lures: Lamp, Trash, Slow, Wish, Foot, Window, Soft, Chair, River, Stove, Anger, Justice, City, Rough, Mountain, Music, Thief, Doctor, Cold, and Needle. In our analysis comparing the more emotionally arousing critical lures to more neutral critical lures, we used arousal scores of those critical lures from the Affective Norms for English Words (12).

We incorporated the misinformation paradigm using previously established, reliable materials (13) involving a slideshow of two photographic stories involving nonviolent crimes (Fig. 2*A*), narratives that described the stories but contained six instances of misleading information (Fig. 2*B*), and a recognition memory test (Fig. 2*C*) followed by a source-of-memory test (Fig. 2*D*). If a participant indicated they saw the misinformation-consistent response in the recognition memory test (Fig. 2*C*), they were identified as having an overall false memory (OFS). If they also indicated in the source test (Fig. 2*D*) they had seen that in the photographs, that is called a source-confirmed false memory (SCFM).

In our nonexistent news-footage procedure, the United 93 plane crash in Pennsylvania on September 11, 2001 was used as the target news event, for which we suggested there was footage of the actual crash when in fact there is no such footage (Fig. 3*A*–*C*). We used wording that had worked well in earlier testing in our laboratory, and participants completed both a computer-based suggestive questionnaire about their memory of the nonexistent news footage and an audio-recorded structured interview about 15 min later. In the interviews, the researcher clarified which event we were asking about, then repeated the suggestion about the video of the crash, and then asked the participant if they had seen the footage and whether they remembered any details contained in the footage.

We also took two other measures of memory distortion/inconsistency. One measure was a brief imagination inflation exercise in the interview whereby participants who had not initially said they had seen the footage were taken through a few minutes of imagining what the footage "might have looked like." Any increase in certainty of seeing this footage after the inflation exercise represented some effect of imagination on memory. We also asked participants to report how often they experienced several negative emotions in the week following the 9/11 attacks. They reported this twice, once in session 1 a week before any memory distortion tests were done, and again in session 2 immediately after the questions about United 93's crash on 9/11. This process provided a measure of their consistency of their memory of emotions from one week to the next.

All nonexistent news-footage interview recordings were independently coded by two research assistants. Coders categorized answers to "yes/no" type questions into three categories: "yes" (coded 1), "maybe/unsure" (coded 0.5), and "no" (coded 0). Interrater reliability was high for the first question asking if they had seen "that footage," Cronbach's $\alpha = 0.938$. Cronbach's α for the similar question asked after the imagination inflation exercise was 0.887. When a discrepancy between two codings arose a senior researcher listened to the recording and resolved the discrepancy to the most accurate coding.

Sample Nonexistent News-Footage Interview Transcript Excerpts.

Excerpts from a HSAM participant's interview showing false memory.

Interviewer: As you might recall, on September 11, 2001, two planes were flown into the World Trade Center in New York City, one plane was flow into the Pentagon in Washington, DC, and another plane, United 93 crashed in a field in rural Pennsylvania. The plane crash in Pennsylvania is the event we are interested in asking you about. The other crashes on 9/11 have already been studied, so we focusing only on United 93, the one that crashed in a field in Pennsylvania. Are you familiar with this event?

HSAM (subject no. 2): Oh yes.

Interviewer: Can you tell me what you remember about the event?

HSAM: Um, What I can remember from the event that I went home. Uh, I went home that afternoon, uh, saw it on the news. Basically, what I remember is that there was a field that had, a plane that had crashed in a field that day. The stories alleged that it was headed to the White House although nobody really knew for sure. Uh, it was later determined that uh, the passengers uh, overpowered the hijackers, and caused it to uh, caused it to, uh, to end up in Pennsylvania. I think it was something like, I am not sure about this, but I think it was a flight out of Cleveland that was headed for, I don't remember. And I'm not, I think it was headed out of Cleveland but I can't say with certainty. Uh, and a couple of days later I saw the footage of the video.

Interviewer: Okay well, as you mentioned and as you might know, a witness on the ground in Pennsylvania took some video of the plane crashing and it has been widely shown on TV news and the internet in the months and years since the attack. Do you remember seeing that footage?

HSAM: Yes, but a couple of days later.

Interviewer: OK, Can you tell me what you remember about the footage?

HSAM: Uh, I saw it going down. I didn't see all of it. I saw, uh a lot of it going down uh, on air.

Interviewer: Ok, do you remember how long the video is?

HSAM: Just a few seconds. It wasn't long. It just seemed like something was falling out of the sky. It was probably was really fast, but I was just, you know, kind of stunned by watching it you know, go down.

Interviewer: Ok, so now is the last question, I would like for you tell me how well you can remember having seen the video on the scale from 1 to 10, where 1 means no memory at all and 10 means a very clear memory?

HSAM: I'd say about 7.

Excerpts from a control participant's (without HSAM) interview showing false memory. **Interviewer:** As you might recall, on September 11, 2001, two planes were flown into the World Trade Center in New York City, one plane was flow into the Pentagon in Washington,

DC, and another plane, United 93 crashed in a field in rural Pennsylvania. The plane crash in Pennsylvania is the event we are interested in asking you about. The other crashes on 9/11 have already been studied, so we focusing only on United 93, the one that crashed in a field in Pennsylvania. Are you familiar with this event?

Non-HSAM (subject no. 130168): Yes, a little bit.

Interviewer: Can you tell me what you remember about the event?

Non-HSAM: I don't remember so much of that one because a lot of the attention was on the two planes that hit the buildings, but I did hear that another landed somewhere else, and I think there was some kind of uprising—something happened during it and we don't exactly where it was headed but where it landed wasn't the intended destination, and that is about as familiar I am with it.

Interviewer: As you might know, a witness on the ground in Pennsylvania took some video of the plane crashing and it has been widely shown on TV news and the internet in the months and years since the attack. Do you remember seeing that footage?

Non-HSAM: Very vaguely, I think it was kind of blurry the noise was kind of sharp in some places. It wasn't high resolution by any means but the resolution was okay considering its time. I don't remember the specific details of the video—how long it was or what was in the context of it, but I vaguely remember seeing it.

Interviewer: Can you describe how the plane moved in the footage?

Non-HSAM: I think what I am remembering is that it was a little rocky but I don't think the camera was very steady but it didn't look very stable as it was moving across the screen.

Interviewer: Do you remember how the plane crashed in the video?

Non-HSAM: I don't think it was a hard crash, but it wasn't a soft one by any means I think there was definitely impact and definitely injuries I think, or if I had been there I imagine I would have been injured, so definitely looked impromptu and not planned at all.

Interviewer: Ok, now, I would like for you tell me how well you can remember having seen the video on the scale from 1 to 10 where 1 means no memory at all and 10 means a very clear memory?. . .

Non-HSAM: . . .I would say about a 7.

Example of a HSAM Individual's Response that Demonstrated Detailed Autobiographical Memory Ability. Note: Personal (not news-related) names were changed in this excerpt Minor redactions were made to protect anonymity. "Um"s and "uh"s were removed for ease of read.

Interviewer: Can you tell me what you remember about the event?

HSAM (subject no. 4): Sure, what I remember about Shanksville. . . Pennsylvania was that I heard about it of course after the other three attacks, and it was almost like an aftermath event because September 10th, excuse me, September 11th was a very patriotic day and I remember that Tuesday of course, everything you saw on the news was about the World Trade Center.

In fact just to backtrack a bit to explain what I remember about Shanksville, is that I remember seeing of course the World Trade Center on TV, I had had to. I usually had my Tuesday morning yoga class, I would study in the library before yoga, and then right before yoga I would come to eat lunch in my dorm room because I didn't have time for cafeteria lunch, and so as my roommate Lisa is getting ready and as we're watching the TV, we hadn't turned on the TV all day and so we finally turned it on and we're trying to see the Maury show, because it usually came on in the morning in New York, and all we saw was just purple smoke in New York City, and Tom Brokaw speaking, and so we thought okay, a special report, maybe there's a plane crash or something in the area, and then she turns to go to the mirror to do her hair, she was blow drying her hair, and I'm sitting on this, this chair eating my Easy Mac macaroni and cheese and, that's when they showed the recap of the second tower falling and I remember screaming like it was a horror movie because someone just blew up the World Trade Center. And so, again it was a lot of chaos, and shortly afterward we found out that classes were canceled. We were a Catholic women's school so there was a memorial service in the chapel, people trying to find out if their loved ones were okay. I had my aunt and uncle working in lower Manhattan, and you know, trying to find out if they made it home okay, which they eventually did.

My best friend Sara, she, I remember hugging her and crying and we stayed in her dorm room the whole time pretty much after mass. And I remember one of the memories also about that day, and again trying to relate this to Shanksville is that, we had an emergency meeting in the dorms, and again a very black day, but Sara and I always joke about it because of the way the [job title redacted] handled himself. The [job title redacted] was trying to get this meeting together of all of the women to explain what was going on, and it was a very hot day, and he assembled us all on the porch of the dorm, and it's like 80 something degrees in Westchester County New York, and so all he was saying, all I remember him saying was "I am [Name Redacted] I am [Name Redacted], there are no planes flying today I am [Name Redacted]." And that was the whole extent of his meeting, and that's why me and Sara just made fun of the fact that he's really ineffective in being a leader in emergencies.

And so, as things are coming together, as I'm watching the news, because the whole day pretty much just stayed in her dorm room, and I think we just went out to dinner at the cafeteria. And that was about it, just stayed in her room the whole day watching the TV and in the aftermath that's when we heard about Shanksville. To my memory, and you know I didn't see any video of the plane going down in Shanksville, not like I saw with the recaps of the World Trade Center, or even with the burst of fire that you saw from the distance of the Pentagon. I just remember seeing footage of the plane being down. I remember like it looked like a crumpled up ball of metal, like you could see the nose, I think you could see wings, some windows, and just a little bit of smoke. It was kind of like a greyish picture in this field in Shanksville. And that's all I remember about it, and they were later connecting it, or figured out that this was the fourth plane.

I remember very much, of course, the story about Todd Beamer and how he supposedly said "Let's roll." I remember very much the fact that his wife was pregnant. I think they found out that they were having a boy, and that boy should be about 10 years old today, so definitely I remember the Todd Beamer story and thinking how sad it was for his, not so much for his, I didn't think about the baby losing the father but my sympathies most with the wife that here's your husband who's supposed to be your best friend and he's died and you're left to raise this child alone. So that was what really stood out to me.

1. Finkelstein S (Producer) (2010). Endless memory. *60 Minutes* [Television series], Dec 19, 2010 (CBS News).
2. Deese J (1959) On the prediction of occurrence of particular verbal intrusions in immediate recall. *J Exp Psychol* 58(1):17–22.
3. Roediger HL, McDermott KB (1995) Creating false memories: Remembering words not presented in lists. *J Exp Psychol Learn Mem Cogn* 21(4):803–814.
4. Roediger HL, 3rd, Watson JM, McDermott KB, Gallo DA (2001) Factors that determine false recall: A multiple regression analysis. *Psychon Bull Rev* 8(3):385–407.

5. Collins AM, Loftus EF (1975) A spreading activation theory of semantic processing. *Psychol Rev* 82(6):407–428.
6. Loftus EF (2005) Planting misinformation in the human mind: A 30-year investigation of the malleability of memory. *Learn Mem* 12(4):361–366.
7. Johnson MK, Hashtroudi S, Lindsay DS (1993) Source monitoring. *Psychol Bull* 114(1):3–28.
8. Crombag HFM, Wagenaar WA, van Koppen PJ (1996) Crashing memories and the problem of 'source monitoring.' *Appl Cogn Psychol* 10(2):95–104.
9. Smeets T, Telgen S, Ost J, Jelicic M, Merckelbach H (2009) What's behind crashing memories? *Appl Cogn Psychol* 23(9):1333–1341.
10. Garry M, Manning CG, Loftus EF, Sherman SJ (1996) Imagination inflation: Imagining a childhood event inflates confidence that it occurred. *Psychon Bull Rev* 3(2):208–214.
11. Levine LJ (1997) Reconstructing memory for emotions. *J Exp Psychol Gen* 126(2): 165–177.
12. Bradley MM, Lang PJ (1999) *Affective Norms for English Words (ANEW)* (NIMH Center for the Study of Emotion and Attention, University of Florida, Gainesville, FL).
13. Okado Y, Stark CE (2005) Neural activity during encoding predicts false memories created by misinformation. *Learn Mem* 12(1):3–11.

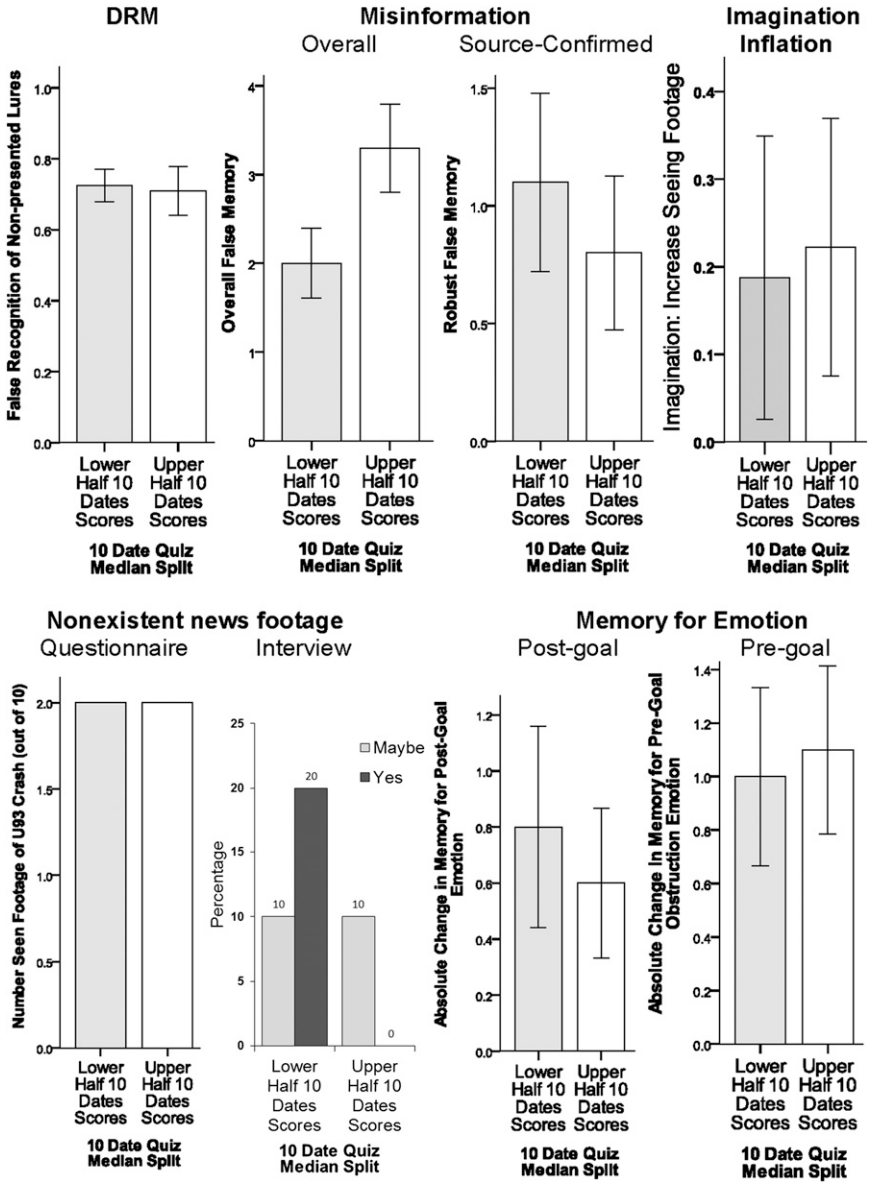

Fig. S1. A median split of HSAM participants by their 10DQ score: A comparison of memory distortion measures. HSAM individuals in the upper half of the 10DQ had significantly more OFM than HSAM participants lower on the 10DQ, $t(18) = -2.38$, $P = 0.029$. All other comparisons shown were not statistically significant. Error bars represent SEs.

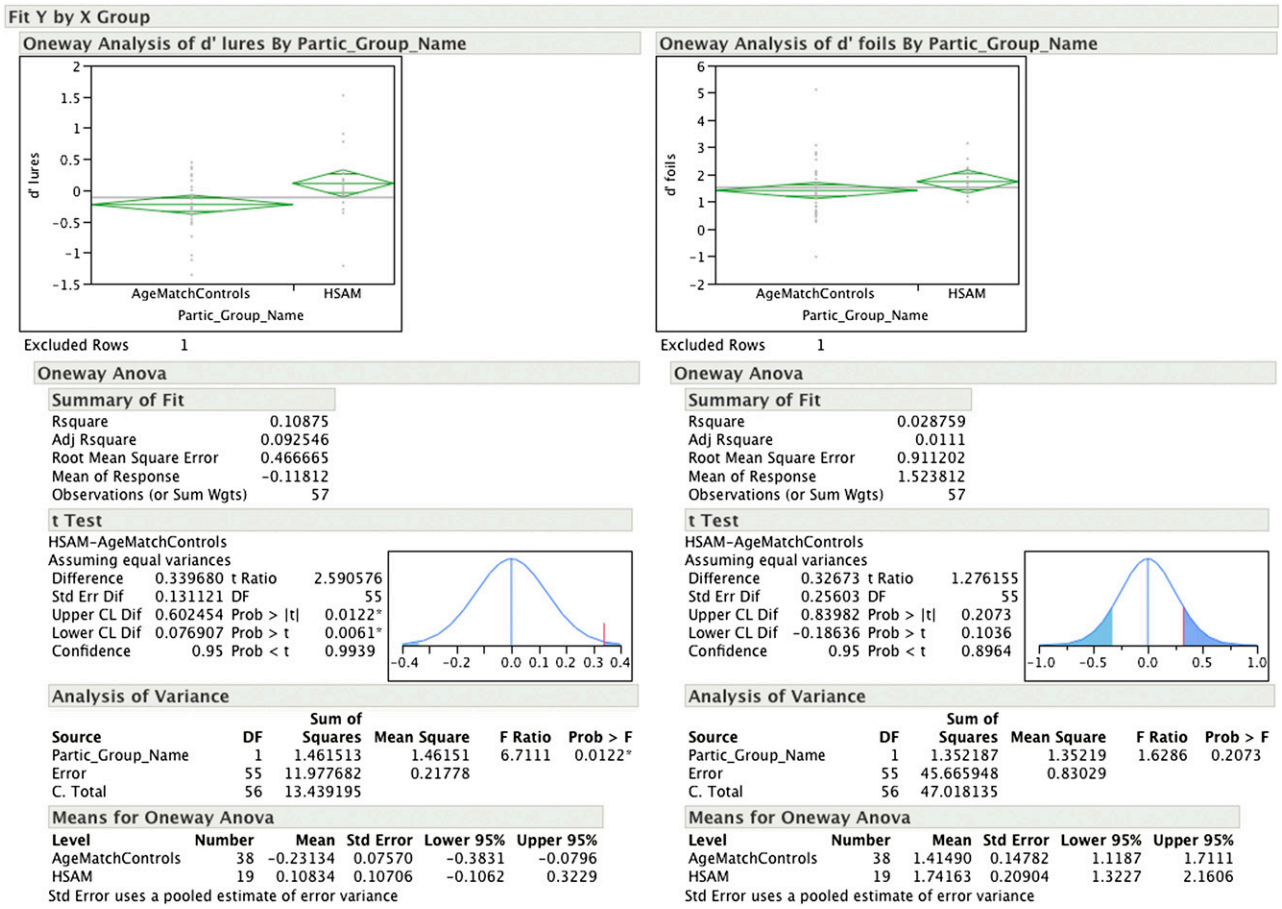

Fig. S2. A signal detection analysis of DRM using critical lures as false alarms (*Left*) and unrelated distractors as false alarms (*Right*). Although HSAM participants and controls did not differ on overall rates of critical lure endorsement on the DRM task, signal detection analysis using d' indicated that HSAM individuals were in fact better able to discriminate between hits and critical lures. HSAM participants had significantly higher d' scores than controls, $t(55) = 2.59$, $P = 0.012$ (*Left*). Using the unrelated distractors as false alarms (*Right*), there is no difference in discrimination between HSAM individuals and controls.

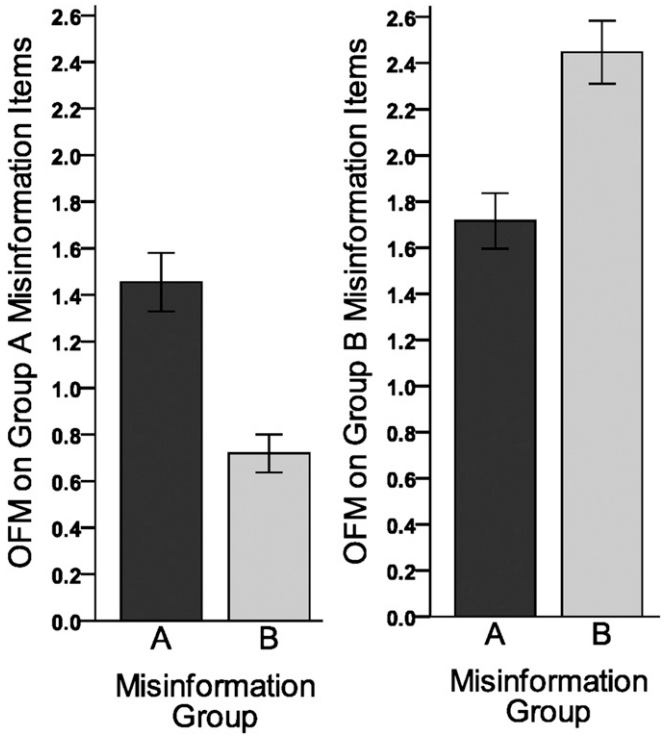

Fig. S3. The classic misinformation-effect experiment replication: The misinformation paradigm involved the random assignment of participants into one of two groups, A and B. Group A received misinformation on a different set of six items than group B, such that each group served as a control group for the other on six items, and as the experimental group on another six items. Both group A items and group B items replicated the classic misinformation effect ($Ps < 0.01$). Group B items had a stronger effect overall, so for other comparisons we removed the variance (noise) because of this difference by creating a *z*-adjusted (*z*-score calculated within each group A and B) measure for OFM (OFM_z) and SCFM ($SCFM_z$). This adjustment was taking into account in the main analysis, but had no effect in most of the statistical tests. Error bars represent SEs.

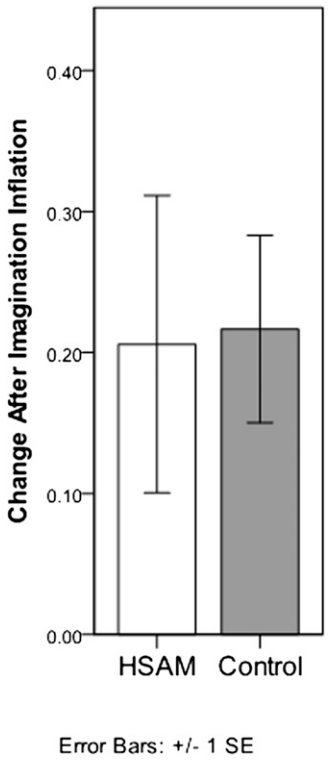

Fig. S4. Imagination inflation exercise: The mean change in certainty (from before the imagination exercise to after) of having seen the nonexistent crash footage of United 93. "Yes" was coded 1, "maybe" coded 0.5, and "no" coded 0. The increase in certainty of having seen the footage in HSAM participants (M = 0.21, SD = 0.44) was not statistically different from controls [M = 0.22, SD = 0.36), $t(45) = -0.09$, $P = 0.928$]. A 2 × 3 categorical analysis found no significant differences between HSAM individuals and controls on susceptibility to imagination inflation (Fisher's exact test: $P = 0.544$). About 17% of HSAM individuals and 10% of controls flipped from saying "no" they hadn't seen the footage before the guided imagery to "yes" after the exercise. Error bars represent SEs.

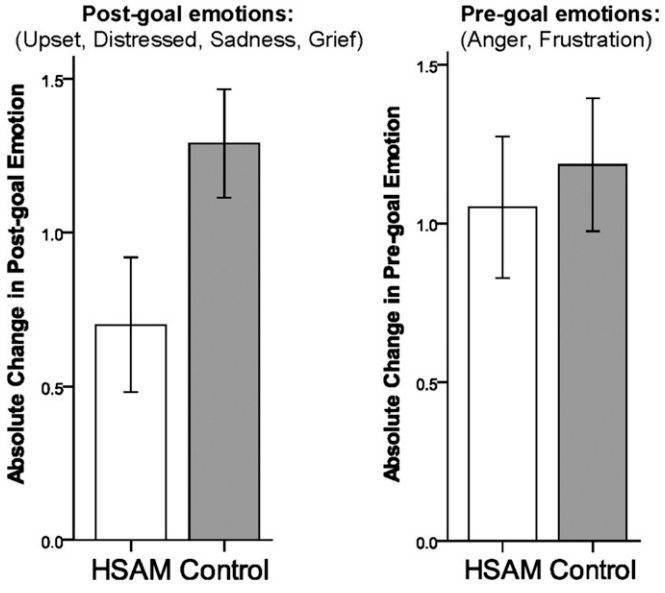

Fig. S5. Memory for emotions felt in the week after 9/11: Inconsistency from session 1 to session 2. HSAM participants and controls had nonzero consistency, from sessions 1–2, in their memory for how often they felt a number of negative emotions in the week following September 11, 2001. HSAM individuals were statistically significantly more consistent than controls at remembering postgoal emotions such as sadness (*Left*), but equally as inconsistent in their memory for pregoal emotions, such as anger (*Right*). Postgoal emotions are associated with a sense of finality and a lack of power. Pregoal emotions are associated with a sense of control and power over a situation and HSAM participants may be less consistent on those because the perceived ability to manipulate the goal can vary and cause current reappraisals. In a secondary analysis treating changes of one point as meaningless, and counting only changes of two points or more, HSAM individuals and controls were statistically similar in their absolute emotion memory change on postgoal ($M_{HSAM} = 0.85$, $M_{control} = 1.22$; $P = 0.245$) and pregoal emotion ($M_{HSAM} = 1.08$, $M_{control} = 1.26$; $P = 0.822$). Error bars represent SEs.

Table S1. Summary of each HSAM participants' autobiographical memory test scores and memory distortions in the various paradigms used in this study

	Autobiographical test scores				Memory distortion measures						
Subject no.	PEQ score	10DQ score	AMT veri.	AMT total	DRM words	Misinfo. OFM	Misinfo. SCFM	Crash quest.	Crash interview	Imagination inflation	Emotion memory
1	73.9	86.7	26	130	20[a]	3	2	No	No	No	20
2	70.5	87.5	—	—	16	3	3	Yes	Yes	—	19
3	64.8	100.0	33	156	18	4	2	No	No	Yes	14
4	53.4	89.8	26	214	17	3	0	No	No	No	23
5	73.9	93.3	34	206	8	3	1	No	No	No	15
6	51.1	75.5	—	—	12	1	1	No	No	No	35
7	67.0	100.0	47	117	20	5	1	No	No	No	11
8	56.8	80.0	22	144	16	2	0	No	No	Maybe	10
9	52.3	82.0	—	—	17	0	0	No	No	No	1[b]
10	59.1	93.8	38	126	11	5	1	No	No	No	15
11	65.9	93.3	—	—	12	1	0	No	No	No	27
12	50.0	93.3	—	—	11	4	3	No	No	No	26
13	58.0	100.0	36	225	20	2	0	Yes	No	Yes	12
14	68.2	86.2	—	—	10	0	0	No	No	Yes	12
15	65.9	76.7	—	—	14	3	3	Yes	Yes	—	18
16	63.6	83.3	—	—	12	3	1	No	No	No	15
17	67.1	100.0	—	—	10	5	0	Yes	Maybe	—	7
18	51.0	96.7	—	—	15	1	0	No	No	No	12
19	60.0	89.3	—	—	14	2	0	No	Maybe	No	24
20	50.0	70.0	—	—	14	3	1	No	No	Maybe	48

AMT total, Autobiographical Memory Test total score; AMT ver, Autobiographical Memory Test for verifiable details (1); Crash interview, participant's answer in the interview to the question "have you seen that footage" of the actual crash of United 93; Crash quest., Whether participants indicated they saw the United 93 plane crash footage in the computer questionnaire (yes/no choice); DRM words, critical lures recognized of 20 in the word list task; Emotion memory, memory for emotion for the week after 9/11—absolute overall inconsistency from week 1 to week 2 (14 negative emotions with Likert-like scale ranging from 1 = *never* to 10 = *all of the time*); Imagination inflation, answer as to whether they believe they have seen the nonexistent United 93 crash footage after the imagination exercise in the interview; Misinfo OFM, overall false memory of six in the misinformation paradigm; Misinfo SCFM, source-confirmed false memory of six in the misinformation paradigm. Em-dashes (—) indicate not tested.

[a]Did not comply apparently with DRM instructions. Participant indicated at test all words as recognized.

[b]This participant was a child at the time of September 11th, 2001, and we found floor effects; low scores on the emotion memory measures in both sessions 1 and 2, contributed to the apparent consistency.

1. LePort AKR, et al. (2012) Behavioral and neuroanatomical investigation of Highly Superior Autobiographical Memory (HSAM). *Neurobiol Learn Mem* 98(1):78–92.

Table S2. Hierarchical linear regression with OFM as the predicted measure

	Model 1			Model 2			Model 3		
Variable	*b*	SE(*b*)	β	*b*	SE(*b*)	β	*B*	SE(*b*)	β
Group (HSAM 1, Control 0)	**0.53**[a]	**0.22**	**0.30**	0.44[b]	0.24	0.25	0.35[c]	0.25	0.20
Fantasy proneness (CEQ)				0.03	0.02	0.17	0.002	0.03	0.01
Absorption (TAS)							0.01	0.009	0.23
Constant	−0.08	0.13		−0.32	0.23		−0.81	0.50	
F(df)	**5.44 (1, 56)**			**3.57 (2, 55)**			**1.85 (3, 54)**		
ΔR^2		0.09			0.03			0.02	
$R^2_{adjusted}$		0.07			0.08			0.09	
VIF_{max}		1.00			1.11			2.71	

CEQ, Creative Experience Questionnaire (aka fantasy proneness); TAS, Tellegen Absorption Scale; VIF_{max}, largest variance inflation factor in a given model. Does the difference between HSAM participants and controls on OFM remain statistically significant when controlling for fantasy proneness (CEQ) and absorption (TAS)? Statistics in bold are statistically significant at $P < 0.05$. [a]$P = 0.023$. [b]$P = 0.07$. [c]$P = 0.17$. On the measures of absorption and fantasy proneness of HSAM individuals were significantly higher than controls. CEQ: $M_{HSAM} = 11.3$, SD = 4.5, $M_{control} = 8.1$, SD = 4.8, $t(56) = 2.42$, $P = 0.019$. TAS: $M_{HSAM} = 90.4$, SD = 19.9, $M_{control} = 72.6$, SD = 16.9, $t(56) = 3.57$, $P = 0.001$. First row: model 1 mimics the OFM *t* test between HSAM participants and controls described in the main article; models 2 and 3 show that the significant difference between HSAM individuals and controls goes away when controlling for fantasy proneness and absorption, with absorption having the biggest effect (see βs in model 3).