

# Brain has a way of distorting memories

By Carey Goldberg, Globe Staff, 5/13/2003

Bad news for diary enthusiasts and raconteurs: Accumulating evidence suggests that when it comes to preserving memories, certain things are better left unsaid. For example, researchers found that when subjects watched a videotape of a mock bank robbery, those who were asked to describe the robber in detail just afterward had a harder time identifying him later than those who had never tried to put their memories into words.

Another experiment found a similar effect with wine-tasting: Sometimes, describing a wine's flavor made it harder for certain people to pick out the wine from among others when they were taste-tested later.

Psychologists call this phenomenon "verbal overshadowing," and they have been studying it for the last dozen years, intrigued by yet another indication that, though memories may seem as static as snapshots, they are in fact fluid and vulnerable to distortion.

Psychology professor Jonathan Schooler of the University of Pittsburgh, who discovered the effect, defines verbal overshadowing as "situations in which one tries to describe difficult-to-describe perceptions, thoughts or feelings, and as a result of that, loses access to the very information they're trying to describe."

Ironic, isn't it? You take the trouble to try to record your most ineffable moments, and just by trying to put them into words, you distort the very memory you're trying to preserve.

As another prominent researcher, Christian A. Meissner, a psychology professor at Florida International University, puts it: Verbal overshadowing "shows that the way you articulate your experience can alter the way you remember it in the future."

In fact, work on verbal overshadowing calls into question what for many is the greatest joy of writing a diary -- the opportunity to chew over various life events, more exhaustively than even the dearest of

friends could stomach.

Several overshadowing experiments, Schooler said, found that when people ruminate over feelings, it can interfere with accurately assessing them. Subjects did much better when they just went with their gut, he said.

But for diehard intellectualizers, there are some heartening aspects to verbal overshadowing.

For one thing, the wine-tasting experiment found that people who were expert not only at tasting wine but at describing it lost nothing by putting the taste into words.

So keeping a diary or retelling experiences could cause no harm for people who have plenty of practice at it.

Also, verbal overshadowing does not tend to affect memories of things that lend themselves easily to words anyway, like simple descriptions of actions or chains of events.

And, in general, Schooler said, "There's tons of research in memory that suggests that recording experiences and rehearsal will help you to remember certain aspects of that experience."

But just keep in mind that it's a double-edged sword, he said: "Certain kinds of distortion may also occur, and they may be particularly pronounced when you try to explain why you're having the experiences you are and when you try to describe really ineffable experiences."

Diaries aside, work on verbal overshadowing has

clear implications for law enforcement and the handling of witnesses. In particular, Meissner said, "Our research says that if you're going to ask a witness to make a subsequent identification, maybe it's best not to push them when it comes to their description of the perpetrator."

Schooler and Meissner disagree over the underlying mechanism at work in verbal overshadowing. Meissner sees it as a "recording problem," that people distort memories as they lay them down or when they retrieve them. Schooler sees verbal overshadowing more as a sign of conflict between the parts of the brain used in verbalizing and the parts used for nonverbal perception of things like faces or maps.

But both seem to agree on the overall lesson. As Meissner put it: "We need to be careful about the way we express our memories, because the manner in which we express something may distort it in the longer term."

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