Memory Errors In Real Life

**Paper details:**

Laypersons are often unaware of the extent to which memory errors (including memory of events that did not occur and memory distortions) are commonplace and widespread. The purpose of this assignment is to make you think of not only memory errors in real life, but also the reasons behind their occurrence. Consider the steps listed below: Read the “Adaptive Constructive Processes and the Future of Memory” and “A Range of Memory Possibilities: The Challenge of the false Memory Debate for Clinicians and Researchers” articles, which offer an overview of memory errors and their origins. Keep in mind that your textbook is another valuable source of information regarding memory errors. Select a case mentioned in a news article where memory errors have been known or can be assumed to have occurred (e.g., eyewitness testimony, instances of recovered memories of traumatic experiences, etc.). Describe the main features of the errors, their consequences, and their possible sources (i.e., what are the features of human memory that make the errors possible?). Engage your critical thinking skills: Explain what cognitive psychology suggests that people do to decrease the occurrence of the memory errors that you discuss in your paper. If these errors cannot be avoided, what does cognitive psychology suggest that people do to prevent the often damaging consequences of such errors?

Note that statements regarding the inaccuracy of human memory, and strategies to decrease the occurrence of errors and their consequences are to be supported by scientific evidence collected by experts. Thus, review the literature on memory errors and use at least two peer-reviewed articles that can answer the questions above. Must begin with an introduction to the selected topic in which you define all concepts that will be discussed in the paper. Include a brief description of the memory errors featured in the selected news article as well as discussing potential sources and known or likely consequences according to the guidelines described above. Include a conclusion expressing your thoughts about how these memory errors can be prevented or reduced, and the extent to which their often dreadful consequences can be minimized. Keep in mind that although your opinion is valuable, it needs to be supported by scientific evidence. Text Resource: Chapter 7 7.1 Everyday Memory When we tell people that we teach psychology, this information elicits knowing glances or furrowed brows, or, worse yet, comments like, “Ohhhh…going to analyze me, huh?” We quickly inform these new acquaintances that no, we don’t really care about their problems (in a clinical sense, at least); we do memory research. This triggers an entirely different (and at times, equally frustrating) set of questions and comments, such as, “Why do I have such a terrible memory for my childhood?” or “I’ll never forget what I was doing when I heard that Princess Diana was killed” or “Why do I remember things differently than my spouse?” Why should we, as memory researchers, find these questions about memory frustrating? Because, until fairly recently, we haven’t had very good answers to these questions. These questions are partially answered by material discussed in Chapter 6. But there is something unique about these questions, something that goes unaddressed by the material presented about memory to this point. These questions refer to one’s personal experience and use of memory in an everyday context. As such, they aren’t fully addressed by much of the memory research discussed thus far. Neisser’s Challenge: Ecological Validity and Memory Research As you’ve no doubt noticed, cognitive psychology research is quite elegant: every confounding variable is anticipated and controlled, and each aspect of responding is carefully and precisely measured. To put it in terms of a concept introduced in Chapter 1, the internal validity of cognitive research is nothing short of impressive. Cognitive psychology no doubt owes behaviorism a debt of gratitude on this score; behaviorist challenges to the notion of scientifically analyzing mental processes (as defined by structuralists and functionalists) meant that any new approach to the study of cognition would have to live up to extremely high methodological standards. Cognitive psychology has more than answered the challenge. But while saluting the incredible progress cognitive psychology has made in establishing an empirical base, many would say that it has come at a cost. Often, the ecological validity (also termed external validity) of cognitive psychology research has fallen well short of impressive. There exists a natural tension between the internal validity and the ecological validity of any research enterprise. You trade off one to get more of the other; more controlled is less natural, and vice versa. Take memory, for example; a great deal of the research in the first three decades of experimental work on memory fit a pretty standard pattern. Word lists carefully constructed to control for the effects of various extraneous variables were presented under precisely controlled conditions, and participant memory was tested with a number of standard laboratory memory tasks, like free recall or recognition. But one might argue that the number of words you can recall from a list of 48 concrete and abstract words presented for four seconds each doesn’t tell you that much about why you can’t remember events from your life that occurred before age 3. The emphasis in memory research (and cognition research in general) has always been on internal validity, often at the expense of ecological validity. In an important address to cognitive psychologists in 1977, Ulric Neisser delivered a blistering critique of the memory research that had accumulated in the first quarter-century of cognition research, a critique that was directed at the emphasis on internal validity. According to Neisser (1978), “If X is an interesting or socially significant aspect of memory, then psychologists have hardly ever studied X” (p. 4). These were fighting words, to say the least. Neisser was basically saying that the first 30 years of memory research had been boring and trivial. Neisser went even further, claiming that although firm empirical generalizations about memory had indeed been made, most of these generalizations “are so obvious that every 10-year-old child knows them anyway” (p. 4). Extremely harsh words, perhaps, but many cognitive psychologists took them to heart. Since Neisser’s address, there has been a veritable explosion of research on what might be considered “everyday” memory. The explosion is evident in the number of citations found in the psychology research database PsychINFO, using the search terms “everyday memory” and “autobiographical memory.” Up until 1986, only a few dozen psychology articles were directed at issues of everyday memory. Since then, there have been over 2500 investigations of these phenomena. Clearly, the investigation of how one remembers the events of their lives has become a central topic within the study of cognition. Everyday Memory Research: Bankrupt? Not everyone jumped on Neisser’s bandwagon. In an influential counter-critique, Banaji and Crowder (1989) decried what they termed the “bankruptcy of everyday memory,” objecting strongly to most of Neisser’s claims. They drew an analogy between the psychologist who conducts well-controlled basic laboratory research on memory and the chemist who does controlled experimentation on the properties of yeast in order to establish why bread dough rises. In their view, the precisely controlled experimentation of the chemist is a more sensible approach and is more likely to yield meaningful results than “loitering in professional bakeries and taking careful notes” (p. 1187). They add that memory psychologists should not be embarrassed or frustrated when faced with questions that can’t really be answered by basic research. “What other science,” they ask, “has established that its students should decide on the importance of questions by checking first with Aunt Martha?” (p. 1187). Banaji and Crowder argue that in everyday memory contexts (such as attempting to remember events from one’s life), the uncontrolled factors are so numerous that generalizability of the results is limited, not increased. Banaji and Crowder assert that the emphasis on internal validity in investigations of memory is entirely appropriate and is likely to be the road to truly generalizable principles of memory function. Striking a Middle Ground. Following Banaji and Crowder’s (1989) critique, a number of researchers came to the defense of everyday memory research (e.g., Conway, 1991) and/or emphasized the value of both laboratory and everyday approaches (e.g., Loftus & Ketcham, 1991; Tulving, 1991). Tulving (1991) makes the important point that memory research is not a “zero-sum game” (i.e., someone must win, and someone must lose); forsaking everyday memory research for a basic laboratory approach, or vice versa, would be “throwing the baby out with the bath water.” Both approaches can be quite valid and generalizable, and both approaches should be employed to discover the principles of memory function. Since the opening salvos of the everyday memory debate, the dust has settled, and to no one’s surprise, both laboratory and everyday approaches to the study of memory are still standing. And both approaches are probably the richer for the exchange. Laboratory psychologists are more sensitive to issues of ecological validity, and everyday memory researchers are more sensitive to issues of precision and control (i.e., internal validity). In this chapter, we’ll review some of the discoveries that have been made by researchers investigating issues of everyday memory, so you’ll be well informed in your conversations with “Aunt Martha.” Chapter 8 8.1 The Sins of Memory Memory researcher Daniel Schacter puts an interesting spin on the processes by which memory fails, calling them the “seven sins of memory,” which evokes an image of the biblical “seven deadly sins” (Schacter, 2001). Although the sins of memory may not be deadly, they certainly are frustrating. And as you’ll see in our discussions of eyewitness memory and so-called recovered memories of child abuse, these “sins” can have tremendous ramifications. According to Schacter, the sins of memory include transience, or the loss of information from memory with the passage of time; absentmindedness, which refers to problems with the interface between attention and long-term memory; and blocking, which is a failure in retrieving information stored in long-term memory. Schacter classifies transience, absentmindedness, and blocking as sins of omission—failures to bring something to mind. These sins of omission have already been discussed: absentmindedness—the culprit responsible for action slips (Chapter 3); transience—forgetting (Chapter 6); blocking—cause of the tip of the tongue and nose phenomena (Chapter 5). The remaining four sins are sins of commission; all of them involve the presence of unwanted or inaccurate memories (Schacter, 2001). Persistence refers to the continued (but unwanted) automatic retrieval of memories that we’d just as soon forget. This sin was at the root of the automatic memory retrieval seen in those suffering from PTSD (Chapter 7). In this chapter we will focus primarily on the three other sins of commission. Misattribution refers to a memory that is ascribed to the wrong source; you thought one of your friends said something when actually another friend did. Suggestibility occurs when someone is led to a false recollection, perhaps through leading questions or others’ suggestions. The memory sin of bias refers to the influence of who we are—our beliefs, expectations, and desires—on what we remember. A classic investigation of reconstructive memory processes was conducted by Carmichael, Hogan, and Walters (1932). These investigators presented participants with ambiguous sketches, each of which could sensibly be interpreted as one of two objects. In Figure 8.1, the first sketch could be interpreted as a broom or a rifle; the second as barbells or eyeglasses; the third as the number 4 or 7. The twist was that participants were given different labels for the presented objects. Half of the participants were told that the pictures were of a broom, barbells, and the number 4; the other half were given the alternative labels—gun, eyeglasses, and the number

7. Later, memory was tested; participants were to draw the figures they had seen. The results revealed that the label had a striking effect on what participants remembered. In spite of the fact that all participants had seen identical sketches, their retrieval sketches were quite different, depending on the label they had received (see Figure 8.1). Gone were the ambiguous-looking sketches that could be interpreted in one of two ways. Participants’ sketches depicted completely unambiguous renditions of the objects, renditions that were consistent with the encoded label. Participants who were given the label “broom” sketched a broom; those who were given the label “gun” sketched a gun. The label biased the way the object was encoded and, as result, the way the memory was reconstructed. An application of Carmichael and colleagues’ results isn’t hard to come by. Take the “memory fights” we just mentioned. Quite often, people disagree about some sequence of events because they have different labels (i.e., a biased view) for what happened or what was said. This (along with the results of the Carmichael study) is a clear example of the memory sin of bias (Schacter, 2001)—that is, when expectations and beliefs exert an undue influence on what is remembered. Must use at least two additional scholarly sources in addition to the course text. The articles that you are asked to read for this assignment (Madill, 2004; Schacter, 2012) can be mentioned in your paper and can be included in the reference section, but a minimum of two additional articles is required. Textbook Resource: Robinson-Riegler B., & Robinson-Riegler, G. L. (2012). Cognitive psychology: Applying the science of the mind (3rd ed) [Electronic version]. Retrieved from https://content.ashford.edu/