Editorial

New Understanding of Memory Poses Challenges for Retrospective Research

A NEW CONCEPTION OF MEMORY

Much of gerontological research rests on the shifting sands of memory. Consider how often we rely on self report, not just to learn what happened last week, but to understand events that happened long ago. Too often our understanding of memory is based on an outdated conception.

Remember those films we saw in grade school, where men in white coats stimulated part of someone's brain and the person experienced a memory? I could be making this up or remembering a dream. Still, I have long understood, in part because of those films/dreams, that all the events of my life, no matter how trivial, were etched somewhere in the soft tissue of my brain. The problem with age, I was taught, was not that memories disappear, but that they become difficult to retrieve. Today when my father suddenly mentions a memory from long ago I wonder what triggered the recollection but I seldom question the validity of the memory.

Remember “False Memory Syndrome”? It changed our conception of memory. In the late 1980s adults began to “recover” traumatic memories of their childhood, often while in therapy. One of the most famous cases made its way to Time magazine (Carlson, 1990). George Franklin was convicted of murder in 1990 on the basis of his daughter’s recovered memories of witnessing the event as a child in 1969. Franklin served almost seven years in prison before the conviction was overturned by an appeals court (Franklin v. Terr, 2000). Many other families experienced suffering and conflict as the result of recovered memories that were later proved false. Most social workers now understand that people can be induced to develop memories through suggestive questions, and practice has been adjusted accordingly (False Memory Syndrome Foundation, 2011).

But this is only part of the story. Not only can memory be constructed by outside influences, but there is good evidence that our recollections change in the course of remembering. Neuroscientists seeking treatments for post-traumatic stress disorder (PTSD) learned that propranolol (a drug
commonly used to treat high blood pressure) blocked physiological reactions to traumatic memories. Further, when PTSD sufferers were forced to remember the traumatic events while under the influence of propranolol, their memories changed—permanently losing their capacity to evoke terror (McGowan, 2010). This pointed the way to a new treatment (and possibly a new prevention) for PTSD.

It also triggered a wave of research that has changed the way we conceive of memory. In 2000 Karim Nader, a relative newcomer to the field, published a controversial series of studies that contradicted the established model of memory. Put simply, he modified stimulus-response memories in rats. Nader interpreted his findings by arguing that reactivating a memory destabilizes it, leaving it vulnerable to change through a process he called “reconsolidation.” Neuroscientists were initially skeptical but in the subsequent decade Nader’s findings were duplicated time and again. Today the notion that memories are changed by the process of remembering or reconsolidation is widely accepted among neuroscientists (McGowan, 2010). Rather than being etched in stone, our memories are more like lines in the sand, redrawn and shifted in the process of recollection.¹

Personal experiences may be illustrative. Try comparing childhood memories with a parent or sibling. Our vivid recollections of key events are sometimes fundamentally different. This can be embarrassing. I once found myself eagerly recounting a tale from childhood when my mother deflated me by explaining that I hadn’t been born when the story took place. Then why did I remember the events so clearly? Memory and imagination may be inextricably linked to the extent that we sometimes can’t tell the difference between things we experience and those we imagine, hear about, or watch. We know this in our personal lives. Why do we forget it in our research?

A CRITICAL LOOK AT RETROSPECTIVE RESEARCH

All retrospective research should be informed by an understanding of memory’s failings. This is particularly true of studies that rely on self report of events for which external verification is not available, like child abuse or neglect. The Adverse Childhood Experiences (ACE) project reflects the collaborative efforts of Kaiser Permanente in Southern California and the Centers for Disease Control and Prevention.² These studies have enrolled thousands of adults, and found that those who report having experienced abuse or neglect in childhood have a range of negative outcomes in adulthood, from increased chance of smoking, substance abuse, or teen

¹ This lends new meaning to the monks’ vows of silence. Even as it may promote meditation, silence might also preserve intact the treasured memories of spiritual experiences.
² I am indebted to Christina Gringeri for introducing me to the ACE studies.
pregnancy to suicide attempts, heart disease, and even cancer (Felitti & Anda, 2010; Centers for Disease Control and Prevention, n.d.).

In light of what we know about memory, the widespread uncritical acceptance of these findings is a bit alarming. But is it harmful? These studies reinforce our knowledge that child abuse and neglect are destructive, and advance the belief that their effects can extend over a half century into adulthood. If this promotes efforts to reduce childhood poverty and domestic violence we can hardly complain. Of course, uncritical acceptance of these results might inspire primary care physicians to focus their diagnostic expertise probing our childhoods rather than ordering screening tests. In this case, organizations like Kaiser Permanente might save money, but it is unclear that patients would benefit.

The notion that memory is reconstituted suggests that the past is not static, but constantly reinvented. This underscores the importance of verification in retrospective research. It also suggests intriguing developmental possibilities. If memory is reconstituted, we (like PTSD sufferers) might more than ever be the authors of our own lives—past, present, and future. A deliberate approach to the reconstruction of memory, with or without propranolol, might leave us stronger, more empathetic, or less tortured. At any rate, for the time being let’s not allow the failings of memory to become the failures of our research.

INTRODUCTION TO THE ISSUE

In this closing issue of 2011 we are pleased to offer a range of thought-provoking contributions with solid practical implications. First up is a piece that bears on the question of memory. Keith A. Anderson and his colleagues from Ohio State University argue that some problematic behaviors seen in nursing home residents might be attributed to early traumas. They suggest that care providers assess and plan with this possibility in mind. Next, Debra P. Waldrop and Nancy Kusmaul from University of Buffalo report on their in-depth study of caregivers’ experiences during the “Living-Dying Interval,” in the process identifying critical periods when social work intervention can have important impacts. In our third offering, Jean M. Gaines and her colleagues in Maryland report on a matched case comparison of adults living in continuing care retirement communities (CCRCs) with respondents in the National Health and Retirement Study. Their results suggest that living in a CCRC may confer important advantages. Then Laura Gibson, from Jasper, Indiana, reports on a careful study of the role of interdisciplinary assessment teams in adult guardianship cases. She provides specific recommendations to improve the contribution of social workers in this situation. In the final article, Yunju Nam reports on her analysis of data from the Current Population survey and calls for advocacy to expand Medicaid eligibility for older immigrants. As always, thanks to our indomitable book review editor, Anissa
Rogers, the issue closes with an insightful review. This time, Iris Phillips considers Donna M. Reed’s book, *An Insider’s Guide to Better Nursing Home Care*, suggesting that it is a goldmine of information for those whose loved ones are in long-term care facilities.

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**REFERENCES**


Franklin v. Terr, F. 3d 1098, 1101 (9th Cir. 2000).