BOOK REVIEW
Memories are made of this

‘He was still too young to know that the heart’s memory eliminates the bad and magnifies the good, and that thanks to this artifice we manage to endure the burden of the past.’ (from Love in a time of cholera, Gabriel García Márquez, 1988)

There are so many great quotes about memory that it is very hard to choose just one to illustrate its place in the human condition. But it seems poignant to begin with Marquez, who, although now suffering from advanced dementia and with little memory left of his own life, has so much to say about memory in his wonderful books (Jacobs, 2012). Given our enduring fascination with memory, it is not surprising that amnesia has had a lead role in neuropsychology. Both of the books under review deal with loss, or distortion, of memory but from very different viewpoints.

Suzanne Corkin’s book on the amnesic patient H.M., Permanent present tense (Corkin, 2013), and Alison Winter’s book, Memory: Fragments of a modern history (Winter, 2012), are both excellent. But they are chalk and cheese. Extending this analogy, Suzanne Corkin’s book could be seen as an in-depth study of the science of cheese-making focusing on English cheddar, whereas Alison Winter’s is the equivalent of the history, sociology and psychology of cheese-making across the ages. Yet despite radically different perspectives, there are overlapping themes and commonalities. One of these is the impact of trends in science. Another is the way in which scientists have used metaphors based on technology of the age to explain the workings of memory.

Henry Molaison, ‘HM’, underwent neurosurgical removal of the medial part of his temporal lobes at a time when psychosurgery was still in vogue and was yet to suffer its fall from grace. One of the most fascinating sections in Suzanne Corkin’s book describes the events leading up to HM’s ‘frankly experimental operation’ on Tuesday, 25 August 1953. No doubt I am not alone in believing that HM underwent surgery by an experienced neurosurgeon, who had already carried out a number of unilateral procedures for the relief of epilepsy, but then, unwisely, extended this to bilateral resection. This myth is debunked by Suzanne Corkin who places HM’s surgery in the context of experimental limbic ablation for the treatment of psychosis. Henry Scoville, HM’s surgeon, developed medial temporal lobectomy as a treatment for psychosis discovering, by serendipity, that it cured epilepsy in two women with psychosis and epilepsy. Against this backdrop he offered the procedure to HM who was struggling with intractable seizures. As we all know, the surgery was both a success and a disaster. His seizures were controlled, but HM was rendered profoundly amnesic. Indeed the severity of memory loss became a yardstick against which other cases were compared ‘as amnesic as HM’. Yet, Henry might never have come to our attention if Scoville had not attended an American Neurological Association meeting in 1954 when he heard the neurosurgical guru of the age, Wilder Penfield, describe two similar cases rendered amnesic by left temporal lobectomy. As a result of this encounter, HM was referred to the Montreal Neurological Institute where he also met Brenda Milner. Milner was able to document the extent of his amnesia and Scoville wrote one of the most important papers in the history of cognitive neuroscience (Scoville and Milner, 1957). Suzanne Corkin was introduced to HM just a few years later while

MEMORY: FRAGMENTS OF A MODERN HISTORY
By Alison Winter 2012.
Chicago: University of Chicago Press
ISBN: 9780226902586
Price: £21.00

PERMANENT PRESENT TENSE: THE UNFORGETTABLE LIFE OF THE AMNESIC PATIENT, H.M.
By Suzanne Corkin 2013.
London: Allen Lane
ISBN: 9781846142710
Price: £20.00

Received August 29, 2013. Accepted August 29, 2013.
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she was undertaking her PhD with Brenda Milner and was immediately captivated by the topic of amnesia and particularly the role of the hippocampus in memory.

Suzanne Corkin’s book documents research undertaken with HM from the time of his surgery in 1953 until his descent into dementia and eventual death in 2008. The organization of the book is largely thematic with sections describing studies on working memory, implicit learning, autobiographical memory and semantic knowledge, amongst others. These chapters provide a great overview of the research on HM, most of which has been published but in disparate journals, chapters and reviews. Having this brought together in eloquent synthesis is extremely valuable and will provide a resource for future memory researchers. An implicit message of the book is the vital role of human lesion-based neuropsychology. The rise of functional brain imaging, in its many guises, has usurped the crown of neuropsychology to such an extent that it is now commonplace to attend conference talks or read papers on memory that make no reference to the rich heritage of human lesion-based neuropsychology. Add to this the effect of the Internet—the ability to search the world literature at the click of a mouse. Being forgetful ourselves, we are in danger of developing a severe case of retrograde amnesia for anything published more than 5 years ago. And in an era obsessed with impact factors it is also salutary to reflect on the fact that none of the key papers on HM featured in Nature or Science, although they are citation classics.

Suzanne Corkin’s book interweaves the science with HM’s biography. For me, the most satisfying parts were the sections describing HM, the man; his childhood, family, his personality and reactions to testing. In these, Corkin abandons the dry academic vernacular style and writes with freedom. Her prose becomes imbued with feeling and reality whereas many of the ‘scientific sections’ documenting motor-skill learning, for instance, are comparatively dry and harder to read. The two strands go together fairly well but I found myself wanting to get to the next chapter of HM’s life.

All of this raises the issue of the target readership. Who did Suzanne Corkin have in mind? For the well-informed general reader, the scientific sections might be rather too technical and detailed. Yet most memory researchers will be familiar with the science, although this is the bias of an ageing memory researcher who grew up on a diet of HM rather than a ‘young Turk’ deeply imbued in brain imaging. Time will tell although, for me, her book has the feel of a classic; a reference source for years to come, at least as long as human lesion-based neuropsychology maintains a small bridgehead.

One of the most amazing things about HM was how well he coped with such severe amnesia. He comes across as jovial and largely lacking distress about his predicament. This contrasts with another famous amnesic patient Clive Waring, the subject of several excellent documentaries, who I had the experience of seeing with Barbara Wilson. Clive lived in a state of distress and bewilderment stating many times each day that he had ‘just woken up’ or become conscious for the first time (Wilson et al., 2008). Perhaps HM’s lack of distress relates to the preservation of parahippocampal structures, regions that appear important for familiarity rather than recall and which generate feelings of familiarity.

Alternatively, the status of infero-medial regions of the frontal cortex, which appear vital for introspection and self-awareness, may be the key to the difference. It would have been valuable to have Suzanne Corkin’s reflections on this issue.

Alison Winter’s book was a revelation and joy to read from start to finish. I found myself recounting stories and biographies gleaned from the book to my long-suffering family. The depth of scholarship is astounding. She covers huge tracts of scientific and popular literature with lucidly and verve. It is not light poolside reading and at times feels like you are consuming your favourite chocolate pudding—better taken in small portions! The main themes are: the permanence versus the fallibility of memory; the malleability of human memory for good and evil; and the role memory plays in the foundation of self. Whereas Suzanne Corkin’s book is about the mechanics of memory, that of Alison Winter is about quality and content. The veracity of personal memory takes centre stage but perhaps Alison Winter’s main concern is with the interface between memory and society, raising the question: what is truth?

The book begins with the description of a notorious murder case from 1906 in which the suspect, Ivan, signed a lengthy confession only to retract it later with the claim that it had been extracted using hypnosis. The case produced a heated debate about the role of hypnosis, a technique that was in widespread use by the police at this time. We are introduced to Hugo Münstemberg, the father of forensic psychology, and the first of a fascinating cast of characters who populate the book. One of the pleasures for me was the many mini-biographies that pepper the book. The question of whether Ivan’s confession was implanted by hypnosis—a false memory—or the truth revealed by sophisticated psychological techniques, lies at the heart of the matter. Later chapters detail the use of ‘truth serum’, sodium amytal, abreaction and ‘brain washing’ techniques. It is remarkable how often doctors become evangelical advocates of ill thought-out or frankly zany treatments, which they continue to proselytize in the face of mounting evidence for the dangers. The use of psychosurgery is one such story. Another was the craze for barbiturate abreaction used for the treatment of trauma victims of World War II in order to restore the ‘true self’ by bringing back to consciousness, and thereby allowing the integration of, partially suppressed traumatic memories. These half-baked treatments built upon the use of truth serum by the police and forensic psychologists in the USA, while ignoring the immense clinical experience of treating shellshock victims of World War I in Britain using humane psychological methods. It is unfair to criticise such a magnificent book, but given that one chapter is devoted to memory and war, some discussion of the earlier literature on shellshock, especially the tremendous books by Peter Barham (2004) and Ben Shephard (2000), is needed.

Wilder Penfield stars in both books under review. As mentioned above, he played a key part in the HM story. This is covered very accurately and succinctly by Alison Winter but the bulk on the chapter on Penfield deals with his views on the veracity of memory. As we know, cortical stimulation of patients awaiting temporal lobe surgery produced vivid visual memories, often from the long forgotten past, that were described as ‘clips from movies’. Penfield pioneered the idea that the temporal lobe acts as
a repository of life memories that are frequently inaccessible, but can be accurately re-evoked in the right circumstances.

This view is clearly echoed in later sections chronicling the False Memory Syndrome Saga. From the 1990s onwards, therapists claimed that psychotherapy could, and did, unearth hidden or repressed memories of early sexual abuse, typically by family members. Self evidently, families are torn apart by such accusations. The idea that some, at least, of the memories may have been ‘false’, meaning that they were induced by the process of therapy in a vulnerable person, produced a storm of criticism from those claiming to have recovered memories of abuse. On the other side, the parents of the ‘abused’ were adamant that no such activity had ever occurred. In a few instances, clear documentary evidence emerged in support, confusingly, both of the victims and those falsely accused. Famous psychologists were drawn into the debate, which eventually fizzled out, after a decade of acrimony, with no clear conclusion.

The whole false memory syndrome controversy brings to mind the early history of psychoanalysis. Freud initially claimed that many of his young female patients had suffered sexual abuse from a parent—usually a father, the memory having been repressed and later breaking out of the dark basement of the mind in the form of hysterical symptoms. As all of his patients came from the elite of Viennese society this view was somewhat incendiary. It is well known that he later modified his views and ‘realised’ that patients were relating ‘fantasised’ rather than real memories. Surprisingly, Alison Winter does not link the False Memory Syndrome Saga story to this important era which has been the subject of a number of fine books (Malcolm, 1984).

As someone who worked for many years within a stone’s throw of the Department of Experimental Psychology in Cambridge, I was delighted that Alison Winter devotes a whole chapter to a local hero, Sir Frederick Bartlett, a founding father of experimental psychology and a Cambridge professor for 20 years. Bartlett’s work was influenced by anthropology yet he applied a rigorous method to exploring facets of narrative memory as described in his landmark book Remembering (Bartlett, 1932).

Saving the best until last, I must mention one of the most compelling chapters in Alison Winter’s book which recounts the Bridget Murphy affair, the first and most notorious example of remembered past lives, yet another memory-related craze that swept North America in the 1950s. Bridget Murphy was the remembered former self of apparently ordinary housewife, Virginia Tighe, from Colorado. Under hypnosis Virginia became Bridget, complete with Irish brogue, a Southern Irish Protestant girl born in 1798, with detailed autobiographical memories of her life in rural Ireland. A book about Bridget/Virginia written by the hypnotist became a bestseller and sparked an epidemic of remembered past lives. Alison Winter details the subsequent investigation into the truth of Bridget’s claims as well as the impact on popular entertainment of the time and the gradual metamorphosis from past lives to the alien abduction syndrome.

It should be apparent that Alison Winter’s book is a treasure trove and a masterly survey of memory research, which explores many forgotten byroads and overgrown lanes. It is a unique piece of work that deserves wide readership. It stands along with Daniel Schacter’s book, Searching for Memory (Schacter, 1996), as one of the most engrossing on the topic and one that should remind us of the multifaceted face of memory research. It tells a great story with pace and verve.

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References