Parting the Gray Veil: The Ethics of Memory and the Biology of Mind

Stacy Hartman

When Nobel Prize winning neuropsychiatrist Eric Kandel was nine years old, the Nazis invaded Vienna. He and his family lived for a year under the terror of Nazi rule before they received visas to emigrate to the United States — first Eric and his older brother, followed by their parents. Although Kandel’s family was spared the worst consequences of the Nazis’ annexation of Austria, the memories of the (quote) “bewilderment, poverty, humiliation, and fear” of that year spent in occupied Vienna had a profound effect on him. In In Search of Memory: The Emergence of a New Science of Mind, a work that is half autobiographical essay and half a history of neurobiology in the twentieth century, Kandel writes: “It is difficult to trace the interests and actions of one’s adult life to specific experiences in childhood and youth. Yet I cannot help but link my later interest in mind – in how people behave, the unpredictability of motivation, and the persistence of memory – to my last year in Vienna” (Kindle Locations 250-252).

Kandel’s story is echoed in that of Jacques Austerlitz, the eponymous protagonist of W.G. Sebald's final novel. Austerlitz is four when the Nazis invade Hungary, and he is sent to England on a Kindertransport, an event so traumatic for the boy that he almost immediately forgets everything related to his early life, including his mother. Austerlitz is the story of his remembering. It is, furthermore, a story about how little we may understand about ourselves: about our own behavior, motivations, and memories. If that sounds familiar, it is because the questions that drive Sebald’s narrative are the same ones that motivated Kandel’s research for half a century. Both Kandel and Sebald ask how the past, particularly the traumatic past, leaves its mark on us, and how early experiences impact us for the rest of our lives. The crucial difference, other
than the fact that Austerlitz is fictional and Kandel is not, is in how Kandel and Sebald approach the subject of memory.

Questions of memory have been central to my field, German Studies, for the last seventy years. Indeed, there was a point in the mid-to-late 90s when German Studies might as well have been called Memory Studies, a phenomenon that prompted prominent Germanist Andreas Huyssen to note in 2003, “Today we seem to suffer from a hypertrophy of memory” (8). These approaches to memory in general and specifically German *Vergangenheitsbewältigung* — that is, coming to terms with the Nazi past — were almost always framed in psychoanalytic terms as issues of repression — the unconscious forgetting of a traumatic event. Repression in psychoanalytical terms is an unconscious, involuntary event; as such, there is no moral weight attached to it for individuals — that is, we do not tend to blame people for repressing traumatic events, as we understand that they did not have any conscious control over it. However, when cultural theorists in the 1980s took the concept of repression out of the realm of the individual psyche and into the realm of the social, the collective repression of the events of World War II and particularly the Holocaust did take on moral weight. The fact that it was the former perpetrators who were doing the forgetting seemed rather convenient, and remembering was sanctified, while forgetting was demonized. I argue that these ethical judgements were made possible by a psychoanalytically based understanding of memory in the twentieth century as something psychological or perhaps even spiritual, rather than biological.

Memory studies proved a rich area for both cultural and literary critics, and it had heavy implications for literature: although there is a mandate to remember certain events, those same events often cannot be represented without violating the *Bildverbot* surrounding the Holocaust. Sebald’s *Austerlitz* has been praised by critics for managing to reconcile these two problems: it
wrestles with the question of how we remember and represents the recovery and working-through of repressed memories, even while avoiding any direct representation of the Holocaust. Underpinning this feat is Sebald’s distinctly psychoanalytic understanding of memory.

Today, I am not interested in explicating Sebald’s psychoanalytic approach, which other critics have already done very well. Rather, I would like to read Sebald and Kandel together to better understand how a biological understanding of memory might change our approach to certain questions. In particular, I’m interested in what thinking of memory as the result of biological processes might do to the ethical stakes of Vergangenheitsbewältigung. Is the sanctification of remembering and the demonization of forgetting still possible with memory reframed in this way? Furthermore, does trauma, even historical trauma, become more representable within a biological understanding of memory? Finally, how might those of us in the field of cognitive cultural studies bring psychoanalysis and biology together, as Kandel argues we should, in order to productively consider these questions? It is very much not my intention to set up psychoanalysis as a straw man for my argument. There are many relevant questions, particularly on the topics of subjectivity and consciousness, that psychoanalysis has been wrestling with for a long time, and which biology has yet to answer. But at this particular moment, biology has much to offer psychoanalysis. Yet the field of memory studies has remained firmly in the psychoanalytic camp, while neglecting to consider the work of neurobiology and neuroscience.

Austerlitz is a text imbued with a psychoanalytic understanding of memory. There are any number of passages I could select for illustrating this, but one of the most striking — and most famous — is the one in which Sebald’s unnamed narrator visits the Belgian fortress of Breendonk. Standing on the edge of the torture chamber of the fortress, he experiences sensory hallucinations:
No one can explain exactly what happens within us when the doors behind which our childhood terrors lurk are flung open. But I do remember that there in the casemate at Breendonk a nauseating smell of soft soap rose to my nostrils and that this smell, in some strange place in my head, was linked to the bizarre German word for scrubbing brush, *Wurzelbürste*, which was a favorite of my father’s and which I had always disliked. Black striations began to quiver before my eyes, and I had to rest my forehead against the wall, which was gritty, covered with bluish spots, and seemed to me to be perspiring with cold beads of sweat. (23)

The reaction Sebald’s narrator has to the torture chamber of Breendonk is clearly one of post-traumatic stress. This passage demonstrates the extent to which memory in Sebald’s novel is threatening and dangerous to both mental and physical health. It is not something that may be explained, controlled, or contained, and Sebald’s narrator here is entirely at its mercy, as his characters often are. Furthermore, the narrator is careful not to represent anything directly. He describes the physical sensations, but he does not say, for example, that the reason he so dislikes the word *Wurzelbürste* is that it was his father’s favorite instrument of punishment, as Katja Garloff posits in her work on the novel. Physical sensations and, to a lesser degree, emotional reactions are representable; the actual memories, however, are not.

Particularly important for my purposes today is the opening sentence of this passage: “No one can explain exactly what happens within us when the doors behind which our childhood terrors lurk are flung open.” The imagery is particularly indicative of a psychoanalytic understanding of memory in which the mind keeps certain memories locked away, repressed, because they are dangerous to our mental health. Memory for Sebald is *not* a biological process; it is not
something that may be explained. Memory is, therefore, something mysterious, and that mystery is part of what makes it so dangerous to us.

But this declaration is, at least in part, no longer true. Thanks to the work of neurobiologists such as Kandel, we know now that trauma, particularly before the age of twenty-five when the brain is still developing, causes actual, physical harm to the hippocampus, an area of the brain that is concerned with memory storage and emotional regulation. The hippocampi of trauma sufferers who have PTSD are measurably smaller than those without PTSD. This is likely because of an overexposure to the hormone cortisol, which is secreted in times of stress. Cortisol has been shown to destroy or damage cells in the hippocampus, thereby inhibiting memory storage and emotional regulation; this is why trauma victims often have missing or incomplete memories surrounding the moment of trauma. We also know, however, that the hippocampus is not the only area of the brain concerned with memory; recent research indicates that long term memories are stored in various sites within the cerebral cortex, an area of the brain concerned with consciousness, attention, and motor control. This discovery has provided new insight into how and why areas of the body seem to be closely connected to particular memories. In the case of Sebald’s narrator, it is likely that the scent of soft soap triggered a memory stored in his cerebral cortex, and the release of that memory triggered in turn a cascade of reactions, both chemical and electrical, in his hypothalamus, which controls the automatic nervous system, and his amygdala, which coordinates our conscious experience of emotion and its physical expression.

For Kandel, memory is something that not only may be explained, but something that is currently being explained. This stands in contrast to a psychoanalytic understanding of memory, which contains an element of mystery and mysticism that is visible in Sebald’s own writing. Kandel’s
biological understanding of memory strips these elements from it, rendering it comprehensible and perhaps even manipulable.

However, the admittedly very brief discussion of neurophysiology I just gave is only a partial explanation. Indeed, Kandel is the first to admit that there is much we do not understand about memory and the brain — that, in fact, we still have not solved the two major mysteries of consciousness: unity of consciousness and subjectivity of consciousness. Of these, Kandel says, we are much closer to solving the former than the latter. Francis Crick, who turned his attention to the problem of unity of consciousness late in his life, believed that the claustrum, a structure in the brain connected to many other parts, is instrumental in achieving unity of consciousness. But the problem of subjectivity of consciousness, Kandel says, is much harder. Toward the end of In Search of Memory, Kandel writes:

What we do not understand is how electrical activity in neurons gives rise to the meaning we ascribe to [a] color or [a] wavelength of sound. The fact that conscious experience is unique to each person raises the question of whether it is possible to determine objectively any characteristics of consciousness that are common to everyone. If the senses ultimately produce experiences that are completely and personally subjective, we cannot, the argument goes, arrive at a general definition of consciousness based on personal experience. (Kindle Locations 5473-5476)

Therefore, it is possible to describe, in biochemical and neurobiological terms, what happens inside Sebald’s narrator when he teeters on the edge of the torture chamber in Breendonk. But it is not possible to say why he has that subjective reaction, when another person would not. This is a problem of consciousness that literature and the arts, not to mention psychoanalysis, have been
dealing with for hundreds of years, but which science has yet to solve. In this same vein, it is possible to say to a certain degree why Austerlitz forgets his early life; trauma in early childhood, especially when it results in the loss of a parent, is particularly damaging physiologically. It may even be possible to explain, or at least theorize about, the return of those memories many years later, though unconscious memory is something biology is only beginning to understand. But what is truly impossible to explain is Austerlitz’s subjective experience of these memories.

If subjectivity of consciousness is impossible to solve on an individual level, then how much more difficult does it become when we begin thinking about memory in a collective way? What does a biological understanding of memory do to our understanding of how memory functions culturally? Notably, this is not only an ethical question for Sebald, it is also one for Kandel. After receiving his Nobel Prize, Kandel became very dedicated to inciting conversation in Austria about Austrian Vergangenheitsbewältigung, a conversation that Austria, in contrast to Germany, has historically been reluctant to have. This is clearly a project that will continue beyond the end of Kandel’s life. But it is one that he found important enough to lend his considerable influence, even if it made him unpopular at times with those who would have liked to claim him as an Austrian Nobel Prize winner while forgetting the reason he spent his entire scientific career in the United States.

Kandel himself does not directly connect this sort of cultural memory work with the biological function of memory on an individual level. And perhaps they are, indeed, two entirely separate things: what we remember and forget as a culture and what we remember and forget as individuals. But I do not think this is true. I believe they are linked through subjectivity of consciousness, one of the mysteries we have yet to solve. Surely the culture into which we are born affects our subjectivity as profoundly as anything else — perhaps more than anything else. That
subjectivity affects the creation of memories themselves and the meaning that those memories take on for us. Staring down into the torture chamber in Breendonk, Sebald’s narrator is affected by childhood memories of abuse that are unique to him. But he stands there nonetheless as a German born at roughly the same time Jean Ámery was being tortured in that very chamber. The reader must wonder if someone else would have had such a strong reaction.

It is relatively easy for us at this point, after a century and change of psychoanalytic thought, to think of collective memory as both cultural and psychological. But it is harder to think of it as both cultural and biological. But we know that biology and culture inform one another, and so it is important to consider how we might wrestle with ethical questions about memory, remembrance, and representation within the framework of biology. We are not used to thinking of biology as having a moral dimension, but if we understand the roots of repression and remembrance to be physiological, and if we believe that we have an ethical imperative to remember certain events, then the biology of memory does take on ethical dimensions. My final question to you today, then, is how we reconcile a biological understanding of memory with the cultural and ethical necessity of remembering. How does a biological understanding of memory shift our moral landscape and what new vistas might emerge if we view familiar questions through this new lens?

Works Cited