

INVESTIGATING COGNITION IN HOWARD ENGEL'S *MEMORY BOOK*: LITERARY
INTERVENTIONS AND INTERCESSIONS IN SCIENTIFIC MODELS OF MEMORY

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

English—Doctor of Philosophy

2022

ABSTRACT

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Crime fiction orbits around the concept of memory. At its core, crime narratives are concerned with reconstructing the past, bringing to light the events surrounding the criminal mystery. Memory also manifests in the genre's detective figures, its modes of detection, and in the eyewitness testimonies used to solve the criminal mystery. In most crime narratives memory operates as a simplistic plot device used to temporarily complicate the mystery and, as such, it is rarely read beyond the cursory scope of trauma. This dissertation, however, argues that crime narratives depicting extreme and rare cases of memory—like amnesia—help trace the boundaries around average functioning memory and reveal useful ways for conceptualizing how memory functions, and what disciplines have the impetus to do so.

In this dissertation I argue that Howard Engel's novel, *Memory Book* (2005), examines the complexities of memory by accomplishing three narratological tasks, distinguishing it from other crime fiction narratives and their more traditional handling of issues of memory and recall. The first task involves placing memory at the center of the narrative and elevating the mystery of the mind to the forefront of the plot. In placing memory at its center, the novel pushes back against traditional and widely popular scientific models of memory as merely the process of remembering and forgetting, advocating for a theory that is more complex and heterogenous. The second narratological task involves the novel's ability to act as a literary intercessor on behalf of the sciences to translate and disseminate theories of memory to the layperson. Within this task, however, I assert that the novel not only passively intercedes, but actively intervenes in

the study of memory by highlighting the inherent limitations of purely scientific or medical models of memory. In exposing these constraints, the novel also suggests a blended, transdisciplinary approach to conceptualizing human memory function and the mind. Lastly, the final task asserts that *Memory Book* is distinct because its narrative is infused with elements of lived experience, elements the scientific method is incapable of capturing in its probing of memory and cognition. Pointing specifically to Engel's authorship and the circumstances surrounding the narrative's composition following a stroke, I argue that the text intentionally blurs the boundaries between reality and fiction as a way of investigating the real-world implications of wrestling with memory loss and brain-injury based amnesia. Each of these narratological tasks is systematically analyzed by engaging with the Howard Engel's memoir—*The Man Who Forgot How to Read*—deeply engaging with the novel's paratextual elements, and through a detailed close reading of the novel.

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This dissertation is dedicated to Billy.
I love you.

ACKNOWLEDGEMENTS

A heartfelt thank you goes to my dissertation committee: Dr. Natalie Philips, Dr. Gary Hoppenstand, Dr. Scott Michaelsen, and Dr. Julian Chambliss. Thank you for encouraging me to write a dissertation that I am passionate about and for your ongoing support, guidance, and patience. Thank you to Natalie for spending countless hours on the phone, texting, on Zoom, and in person taking half-baked ideas and helping me turn them into critical interventions. Thank you to Gary for your unwavering kindness and for nurturing my love for crime fiction. Thank you to Scott for pushing me to think beyond simply applying science to literature, and to instead search for new avenues of knowledge. Thank you to Julian for stepping in in the eleventh hour and saving the day.

Christine, Justin, Zack, Sean, Lance, and Jessica—thank you for listening to me ramble on about memory and crime fiction for years. Thank you for the many conversations and for reading multiple (and equally terrible) drafts. Your friendships have carried me through bouts of discouragement and never-ending imposter syndrome. I am honored to call you colleagues and friends.

To my family, thank you for always believing in me and for being my biggest cheerleaders. Mom and dad, thank you for all your many sacrifices over the years and for never limiting my potential. Brianna and Antoinette, your kindness, beauty, and intelligence always has, and always will inspire me. I love you.

Billy, you are a blessing in my life and I will never stop thanking God for bringing us together. Thank you for upholding your marriage vows in sickness and in health and for urging me to finish this project when I did not think it was possible. I cherish you.

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INTRODUCTION

Let's investigate a unique case of memory. In 1953 a twenty-seven-year-old man named Henry Gustav Molaison visited the doctor seeking treatment for a severe case of epilepsy caused by a bicycle accident when he was seven years old. By the time Molaison finally sought medical attention, he had been experiencing debilitating seizures for nearly ten years and daily tasks—such as driving and going to work—had become impossible. His epilepsy was no longer a neurological condition he lived with, but something that prevented him from living. Molaison was referred to neurosurgeon, Willian Beecher Scoville, at Hartford Hospital where Doctor Scoville offered him an experimental, psychosurgical operation as a possible cure for his seizures. The procedure consisted of drilling two holes into the front of Molaison's skull and removing parts of his hippocampus and most of the amygdala, a lobotomy by today's standards. The objective of the surgery was that by removing parts of the brain associated with sensory stimuli, the seizures would cease. When Molaison emerged from surgery his epilepsy was mostly cured, but his memory, specifically his ability to store or retrieve new experiences, was irreparably damaged. Molaison could remember much of his life leading up to the surgery but was unable to remember present experiences as soon as thirty seconds after they occurred.

To this day, Henry Molaison is considered one of the most important cases in the scientific study of memory. His case is considered so fundamental to questions of memory and the cognition that even after his death his brain was spliced, preserved, and continues to be studied. In an interview with the Dr. Suzanne Corkin,¹ reporter Tim Adams claims that

¹ Dr. Suzanne Corkin was a professor of neuroscience at MIT and a leading scholar in neuropsychology and cognitive neuroscience. Corkin interviewed Molaison as part of her

Molaison's case "helped to invent neuroscience," and although this statement might at first seem like an overexaggerated journalistic claim to capture the reader's attention, it is largely true. Many scholars cite the early 1950s and a handful of case studies, including Henry Molaison's, as the genesis of the cognitive revolution and the turn towards neuroscience as the gold standard for understanding the human mind and memory. What makes Henry Molaison, or "HM" as he is referred to in the scientific community, so special is that his case dispelled the common belief that memory was a function associated with the entire brain. Molaison's experimental surgery paved the way for breakthroughs in neuroscience that helped researchers better understand the function of memory as well as the specific parts of the brain associated with memory storage and recall. Despite the scientific breakthroughs and avenues for new research that Molaison's case provided, he lived the next fifty-five years of his life in the "permanent present moment," isolated from the past (Adams 2).

I point to Molaison's case because it represents one polar end of what I am calling the memory spectrum. At one end of the spectrum are individuals like Molaison who experience a complete loss of memory, or amnesia. At the opposing end of the memory spectrum lies perfect memory, or the ability to retain and recall the past in perfect detail even after long periods of time have elapsed. The average person falls somewhere in the middle of these two poles, with some individuals having slightly better or worse memory. While cases landing on either extreme of the spectrum are rare and exceptional, I argue that they are essential to defining and shaping what one perceives as *normal* human memory precisely because these extremes help determine the boundaries and parameters for human memory by exposing its limitations and the conditions

research and developed a 46-year long friendship with him which resulted in her memoir, *Permanent Present Tense*.

in which these limitations arise. Furthermore, these extremes set a new precedent for how the human mind can be studied and what disciplines have the impetus to do so.

Extreme cases of memory have not only provided scientific communities with new research and areas of study, but these highly publicized stories of individuals like Henry Molaison also provided inspiration for new characters and plots for writers of the day. Literature in general, and crime fiction in particular, has heavily invested in transforming memory's extremes into a driving force for narrativizing the mind. Creating narratives with characters that lie on either end of the memory spectrum shifts the text's focus away from the crime, and instead establishes memory as the mystery that must be solved. By placing memory itself on the witness stand, these texts bring memory to the forefront of the narrative and while most crime fiction narratives present cases of memory that fall somewhere in the middle of the memory spectrum, there are a select few that cover memory's extremes. Novels like Howard Engel's *Memory Book* (2005) confront extreme instances of amnesia to highlight the complex conceptions of memory and cognitive function that exist beyond the scope of the hard sciences and within the realm of literature. Crime fiction narratives that address memory loss are not rare,² but what makes Engel's novel unique is how it reformulates the narrative to prioritize and complicate the conception of memory.

Narratives that probe either pole of the spectrum bring rare and unusual instances of memory into focus, shedding light on how average human memory operates. When readers

² Other crime fiction texts that contribute to this tradition of memory loss, albeit from various perspectives, include Raymond Chandler's *The Long Goodbye* (1953); Julian Symons' *The Colour of Murder* (1957); Len Deighton's *The Ipcress File* (1962); Patricia Highsmith's *The Talented Mr. Ripley* (1966); Douglas Adams' *Dirk Gently's Holistic Detective Agency* (1982); Richard Morgan's *Altered Carbon* (2002); Umberto Eco's *The Mysterious Flame of Queen Loana* (2004); Tana French's *In the Woods* (2007); Paula Hawkins' *The Girl on the Train* (2015); and A.J. Finn's *The Woman in the Window* (2018).

engage with texts that confront memory's extremes it forces them to actively consider common memory theories and to articulate their own understanding of how the human brain functions. These texts foreground memory not only as a subject to be explored, but as the crux of the plot and an issue subject to interrogation and skepticism. Texts demonstrating the extremes of memory loss, therefore, are not simply in search of lost memory but eager to understand how and why memory is lost and its ramifications. I contend that crime fiction texts like Howard Engel's operate similarly to the case of Henry Molaison in their ability to sketch the boundaries of human the human mind and memory, bringing literature into the fold of memory studies and reiterating the crucial stakes it holds in the study and conception of memory and cognition.

MEMORY STUDIES AND CRIME FICTION: A BRIEF HISTORY

Crime fiction orbits around the concept of memory. At its core the genre seeks to reconstruct a lost past while simultaneously crafting a narrative around the present. Carl D. Malmgren suggests that "the past is more than merely a time and place for mystery fiction; pastness is a fundamental part of the subgenre's ontology," and as a result, the crime novel or short story is "usually not narrated; it is recounted" (18). Recollections of the past most prominently inhabit the genre through the narrative's reconstruction of the events leading up to the central crime or mystery, however, memory also features in key elements such as eyewitness testimonies, the detective figures' methodologies, and even in the reader's own ability to sift through, prioritize, and remember key elements of the mystery. Memory acts upon and reacts to the multifaceted characters that comprise crime fiction texts, constantly changing to adapt to new environments, lines of inquiry, and physical and emotional circumstances. At times memory manifests as complete, accurate, and trustworthy, and at others fragmented, unreliable, or even lost

completely. Memory can be the foundation upon which the entire crime or mystery is solved, or the avenue through which it becomes more fragmented and convoluted. Memory, therefore, acts as the fragile thread that holds the potential either to complete, or to unravel the truth claims at the heart of the crime narrative.

Rather than simply deploying memory, crime fiction texts demonstrate a deeper investment in the philosophical and epistemic questions surrounding memory such as: What is memory? How does it operate? When and where does it thrive, unravel, or fail? How does it influence and shape who we are and how we make sense of the world? And what claims does it have to Truth? A range of fields and disciplines—philosophy, neuroscience, cognitive psychology, cultural theory—lay claims to these questions, offering philosophical interventions, scientific explanations, and a long catalog of case studies as the basis for their conceptualization of the human mind and memory. Each of these fields approach the study of memory with different motivations and varying methodologies but investigating memory within crime fiction creates a narrative space where the perspectives and approaches taken on by each of these fields are allowed to commingle, amalgamate, and be tested and refigured through the written word. Literature, and crime fiction specifically, facilitates an environment where the confines of reality are lifted, the human mind is laid bare, and the past is continually prodded outside of the purview of ethical and real-life consequences. In other words, crime fiction stakes its claims to the understanding of memory by not only deploying knowledge from other fields, but by asserting its ability to formulate and test its own theories in ways that are inaccessible to other disciplines. While other fields of study are forced to passively wait for cases to arise that can be studied and observed, crime fiction actively engages with the central questions of memory by placing it

within an array of historical moments, physical spaces and locales, mental states, and through an ever widening and complex network of individuals and personalities.

Every crime fiction text rubs up against memory and with each moment of contact the archive of literary investments in the human mind and memory expands. Before focusing on the extreme and rare cases of memory within the genre, it is important to first explore how crime fiction is impacted by the long history of memory studies and when and how the genre directly engages with general theories of human memory and cognition. As such, I will touch briefly on some key moments in the history of memory studies and then show how these benchmarks impacted the formulation of the genre, its tropes, and its use of and perspectives on memory.

Memory Studies. Most discussions of memory start with the ancient philosophers—Cicero, Quintilian, Socrates, Plato, Aristotle—because they were the first to theorize the answers to the fundamental questions of memory. Their theories have endured centuries, echoing throughout politics and literature and leaving lasting impressions in science and society, much like the faculty of memory itself. While there are many authors who have taken on the monumental task of tracing the history of memory studies,³ the purpose here is to briefly highlight a few important touchstones that are influential in understanding how memory has been conceptualized and implemented in crime fiction. Metaphor as a heuristic tool, for example, is one of the ancient philosophers' greatest contributions to the field of memory studies. Memory metaphors grounded questions of recollection and storage in common imagery, making difficult concepts easier to grasp and disseminate to the public. For this reason, the metaphors of the wax seal, the signet

³ For texts on the history of memory studies, see Mary Carruthers' *The Book of Memory: A Study of Memory in Medieval Culture*, Kurt Danziger's *Marking the Mind: A History of Memory*, and Stefan Berger and William J. Niven's *Writing the History of Memory*.

ring, and the storehouse are all central to conceptualizing *where* memory takes place, *what* is remembered, and *how*.

Of all the metaphors used to theorize memory, Mary Carruthers identifies the wax seal and the storehouse metaphors as the two most influential. Plato's *Theaetetus* and Aristotle's *On Memory* are some of the earliest and most famous conversations regarding human memory, and from these works emerged the well-known metaphor of memory as an imprint in a wax block or tablet. For both Plato and Aristotle, memory held the power to replicate the past in perfect, intricate detail. The view of memory indicated by this metaphor is one of the longest enduring conceptions of memory and one that even though it has been displaced, still enters conversations surrounding recall because "The classical association of memory with the wax tablet. . . founded an enduring pattern of association between memory and imprinting, memory and writing and, more recently, memory and the visual media" (Radstone 327). The study and understanding of memory also extends into the use of mnemonic devices, gesturing back to Plato and Aristotle's idea that memories could be extracted from the mind as perfect replicas if the right techniques were employed. The second major metaphor for memory is that of the storehouse, "storage-room," "treasury," or "strongbox," which also shows up in Plato's *Theaetetus*.⁴ Carruthers explains that unlike the wax seal metaphor that emphasized the process of encoding and storing memory, the storehouse metaphor "refers both to the contents of such a memory and to its internal organization" by using visual and spatial images to remember the particulars of memories (37). Like the wax seal, the storehouse metaphor viewed memories as items that could be perfectly replicated and recalled in intimate detail if they were imaginatively and orderly

⁴ For more on the development of this memory metaphor see Carruthers' *The Book of Memory: A Study of Memory in Medieval Culture* pages 37-55.

stored in the mind for later use. The important thing to note about these foundational theories of memory is the emphasis they place on the possibility of perfect, accurate storage and recall.

Although these metaphors have been largely disputed and even overturned since their genesis, they have left lasting impressions in literature, film, art, and other popular culture artifacts; and they continue to surface to this day, showing that although they may be scientifically disproven, they remain culturally intriguing.

Moving briskly away from antiquity and into the early modern period, Cartesian dualism entered the scene with transformative views on memory and cognition. Rene Descartes' theories concerning the mechanisms of the human mind and memory are equal parts revolutionary and controversial. One of his most interesting and contentious theories concerns the role of "animal spirits" in memory function. Descartes hypothesized that the animal spirits acted as a way of recording and remembering what was experienced in the outside world within the inner world of the brain. For Descartes, the "whooshing animal spirits, shaking through brain tissues. . . incessantly undergo *criblage* or *tamisage* (sifting, filtering, sieving) in the textured porous net, forming and retracing patterns across the inner surfaces of a filamentous mesh" (Sutton 56). As these animal spirits moved through the brain, Descartes suggested that they created unique folds and impressions in the tissues associated with memory, and that this is what created and preserved memories. He also postulated that animal spirits shift and move according to their various external conditions such as "changes in environment, climate, diet, bodily practices, [and] in the condition of the blood and other body fluids" (Sutton 56-57). While Plato and Aristotle credited the pliability of the wax in their metaphor as an important factor in the accurate and effective imprinting of memory, Descartes' theory goes a step further to suggest specific internal and environmental factors that impact the process of memory encoding and recall.

Unlike earlier theories, Descartes' was one of the first to postulate the neural functions and processes behind memory. In other words, his theories moved the study of memory outside of philosophy and into the experimental sciences by placing it within the brain and marking it as a neuro-specific process involving brain tissues and synapses. Descartes' animal spirits became so well recognized that they even appeared in prominent literary texts such as Laurence Sterne's, *Tristram Shandy*, indicating the reach and interest of memory issues outside of philosophy, psychology, and science. As Descartes' theory gained popularity, however, it also underwent scrutiny.

The animal spirits theory garnered both fascination and criticism, with the loudest outcry coming from British empiricists. John Sutton explains that for the English, "The Cartesian animal spirits theory of memory was loathsome and morally abhorrent" as it denied the function of the mind and memory "systematicity, stability, and structure," characteristics many English scholars considered to be the signs of "true thinking" (129). Sutton connects this blatant disregard of Descartes' theory to "the obsession with order" following the events of the Civil War and the Interregnum (132). English theorists' preoccupation with order and structure "produced not only impositions of unity in worship, dress, and conduct, but also attempts to keep the past in place" and this often occurred at the expense of accuracy when it came to memory (Sutton 132). As the English philosophers of the 17th century debated Descartes' theory and worked on developing their own, they suggested that "diaries, lists, memory aids, and the right sort of theory of memory could reassure, and prompt the self toward the requisite regularity," and that through such memory aids and approaches it was possible to impose "order on memory" (Sutton 137-38). The rise of British empiricism with scholars such as John Locke and David Hume further edged the study of memory into the realm of the physical sciences where

eventually thinkers and psychologists such as Maurice Halbwachs and Hermann Ebbinghaus ushered in the development of cognitive psychology and the experimental study of memory.

Crime Fiction and Memory—Birth of the Genre. Intersecting with the moment in history leading up to the 1880s and the introduction of experimental psychology, the crime fiction genre was just starting to take shape in the wake of Europe’s Bloody Code. Outlining the history of crime fiction, scholars oftentimes point to the widespread fascination with crime, murder, and violence during the Bloody Code as the earliest precursor to crime and detective fiction. Public torture and execution were popular modes of punishment for crimes all throughout Europe and many of these public spectacles were “accompanied by hastily printed pamphlet-length biographies of the accused or narrative poems emphasizing the more thrilling and gruesome elements of their activities,” allowing crime and punishment not only to be reenacted and witnessed at the time of execution, but reproduced and re-lived by a mass public (Bradford 4). As these pamphlets were consumed by the public, the narratives surrounding the crimes were altered and revised by various authors, updated and confirmed by eyewitness accounts, and given extra weight by “confessions” from the criminals themselves. By 1773 in England, the public fascination with these criminology pamphlets gave rise to the Newgate Calendar which “satisfied the popular fascination with crime and criminals by gathering together accounts of the lives, trials, confessions, punishments and/or escapes from, or evasions of the law of celebrated criminals” (Pykett 20). Created both for entertainment as well as moral instruction, the mass obsession with the Newgate Calendar eventually gave rise to what would become known as the Newgate novels, the first being Edward Bulwer’s *Paul Clifford* in 1830. Featuring journalistic techniques as a means of narrating criminal feats, the first Newgate novels drew inspiration from various

pamphlets to create fictionalized criminals. In 1832 Bulwer's *Eugene Aram* both confirmed the Newgate novel tradition and established itself as the first novel which detailed the life and events of a real-life murderer.

Sparked by trends established in the Newgate novels, the rise of the sensation novel in the 1860s shared with its predecessor both its journalistic constructs as well as “plots centered on criminal deeds, or social transgressions and illicit passions” (Pykett 33). Unlike its predecessor, however, whose narratives took place on the road and in brothels, the sensation novel changed the location of deviant behavior to the family estate and the drawing room. Wilkie Collins' *The Moonstone* (1868) was born from the Victorian sensationalist tradition but is oftentimes cited by scholars as the first detective fiction novel. What is important about tracing this history starting with the Bloody Code and extending to Collins' novel is the conceptions of memory that were being disseminated through popular media to the general public, as well as memory's relationship to crime and punishment. One of the most significant points about the importance of the Bloody Code and the early crime fiction narratives is the fact that for the first time in history, the mass production and consumption of these materials signaled the entrance of criminal acts within a body of literature that extended beyond the educated and literate elite. Their explicit imagery and use of attached ballads and songs meant that even those who were not literate could participate in the exchange of criminal misbehavior and punishment. In terms of memory, these texts operated on various levels as they not only memorialized the crime, the victims, and the criminal; but they also fixed the crimes and their consequences permanently within the minds of those who either physically witnessed or read about the criminal and their execution. In this way, the literature surrounding the Bloody Code helped to further entrench ideals of order within

memory by utilizing the memory of crime as a powerful deterrent to help maintain order within the larger legal system.

The change in scenery from the roads and brothels to the country manor and drawing-room is also important to note as it signals the inward movement in the understanding of human behavior. This change in the locale of crime is due largely in part to the decline in public execution and torture starting in 1760 and extending through 1840. As crime and punishment transitioned from the public stage to the private realm of the courtroom and the prison, the spectacle of crime gave way to definitions of crime, the criminal, and punishment. Whereas the broadsheets during the Bloody Code gave specific evidence to the crime and the criminal, the new system not only kept these things private, but it sought to investigate the hidden motives of the criminal mind. Rather than the crime being the focus, it was the “shadows lurking behind the case itself that are judged and punished. . . the knowledge of the criminal, one’s estimation of him, what is known about the relations between him, his past and his crime, and what might be expected of him in the future” (Foucault 17-18). The juridical objective was no longer simply discerning *who* committed the crime but in answering the questions of “How can we assign the causal process that produced it? Where did it originate in the author himself? Instinct, unconscious, environment, heredity?” (Foucault 19). The system aimed to probe “individuals not only on what they do, but also on what they are, will be, may be” (Foucault 18). As Michel Foucault illustrates, the movement of crime and punishment from the public to the private realm not only changed how it was translated to the public, but also how it was codified and judged. The Victorian sensation novel, and by extension the progenitors of crime fiction, mirrored the contemporary shift in the locales of crime and shifted inward as a means of judging human behavior. In addition to the inward, private movement of depictions of crime, Charles Rzepka

suggests that the 1850s and 1860s represents a time where “Evolutionary theory, proper methods of reconstructing the past, and questions of origin—planetary, geological, biological, and human – came to dominate intellectual debate throughout Great Britain,” further illustrating the convergence of similar initiatives in literature, society, philosophy, and the human sciences (97).

The questions that the ancient philosophers and more contemporary scholars raised concerning the relationship between the mind, memory, and human behavior clearly influences the earliest iterations of the crime fiction genre. The famous detectives of the amateur and golden age eras such as C. Auguste Dupin and Sherlock Holmes show a vested interest in investigating many of the same questions raised by the aforementioned scholars. For example, in Sir Arthur Conan Doyle’s story *A Study in Scarlet*, Sherlock Holmes evokes the storehouse memory metaphor to explain to John Watson that effective ratiocination requires a specific understanding of the abilities and capacity of human memory. Holmes explains:

‘A fool takes in all the lumber of every sort that he comes across, so that the knowledge which might be useful to him gets crowded out, or at best is jumbled up with a lot of other things, so that he has a difficulty in laying his hands upon it. Now the skillful workman is very careful indeed as to what he takes into his brain-attic. He will have nothing but the tools which may help him in doing his work, but of these he has a large assortment, and all in the most perfect order. It is a mistake to think that that little room has elastic walls and can distend to any extent.’ (9)

Conan Doyle, a physician well versed in the contemporary debates about the human mind and memory, uses Holmes and his “brain-attic” as a means of exploring the commonly debated issue of memory capacity. For example, Watson finds it difficult to believe that Sherlock Holmes has no knowledge of the solar system, but Holmes suggests that due to memory’s limited capacity, only relevant knowledge should be stored in the “brain-attic.” Holmes explains that failure to choose wisely what is stored in the brain puts important, relevant information at risk of being “crowded out” or “jumbled up.” He also asserts that the brain-attic does not have “elastic walls” that can “distend to any extent” and that all the stored information must be “in the most perfect order.” Here, Holmes suggests not only that memory has a limited capacity, but that for memory to function effectively it must be stored in a particular fashion. Holmes’ assertion that storage

must be intentional and orderly references both the wax seal and storehouse metaphors and the emphasis they place on the ability to reproduce memories with perfect accuracy if only the content is carefully imprinted and intentionally stored. His reference to “order” also elicits British empiricism and its reaction to Descartes’ unruly animal spirits. Early amateur and golden age detectives like Dupin, Holmes, and Poirot are examples of the popularity and endurance of memory theories that started with the ancient philosophers and extend to debates between Cartesian dualism and British empiricism.

Amateur and golden age crime fiction touted memory as reliable, stable, and easily accessible, but after the trauma and destruction brought on by two world wars this view of memory no longer fit the global milieu. With the widespread disillusionment caused by the war and the introduction of postmodernism, the post-1945 crime narrative shifted away from conceptions of memory as reliable and stable entities, and toward an understanding of memory as incomplete, incoherent, and exceedingly unreliable. Mark Freeman suggests that it was the “widespread recognition of the reconstructive nature of memory” that “destabilized the idea of memory itself” (263). This turn in the genre is most notably marked in the radical shift from the golden age narrative to the hardboiled tradition. In many ways, the hardboiled narrative opened the crime genre to the chaos of the twentieth century by suggesting that order, logic, and reason were no longer viable tools in deciphering or understanding the human mind or the world. One way this can be seen in the hardboiled story is through the shift in the detective’s methods of operation. No longer relying on his “brain-attic,” the hardboiled detective must use physical force and violence to extract information. Rather than using their minds to solve the crimes, detectives like Sam Spade, Mike Hammer, Philip Marlowe, and Dave Robicheaux rely on third-

degree tactics and sheer manpower to obtain the pieces of the criminal puzzle and reconstruct the past.

Another shift in memory studies and crime fiction occurred in the 1950s and 1960s with the rise of the cognitive revolution and an increased interest in the role of technology and forensic science in conceptualizing the mind and memory. With the technology boom and the new mediums of photography and television, new ways of understanding the human mind presented themselves not only to scientists, but to the mass public through popular media. Crime fiction responded to this boom by introducing a range of new subgenres: police procedurals, courtroom or legal dramas, techno thrillers, psychological thrillers, spy thrillers, etc. Although the birth of psychoanalysis heralded hypnotism and drugs as ways to access hidden or repressed memories, concerns of brainwashing and suggestion arose following the Cold War to the point where “Popular interest arose in experiments with mind-altering substances” (Rzepka 42). This concept of brain-washing and mind-altering drugs is most explored in the spy thriller genre in texts such as John Le Carrè’s *The Spy Who Came in from the Cold* and Len Deighton’s *The Ipcress File*. Many of these narratives indicate an interest in altered states of mind in their treatment of international relations and “turned” operatives. With new technologies developed during and after WWII, a rising interest in technology’s role in solving crime became a key tenant in the police procedural and courtroom dramas of the 1950s and 1960s. In narratives such as Scott Turow’s *Presumed Innocent* (1987) and Thomas Harris’ *The Silence of the Lambs* (1988), forensic evidence and the reliance on technology in recreating the past are easily exhibited as the detectives are usually waiting for fingerprint reports, blood spatter analysis, or post-mortem results to move forward with their investigation. Just as the hardboiled narratives of the early 1930s and 1940s opened the genre to exploring the unreliable nature of memory, the police

procedurals and courtroom dramas acknowledge a reliance on technology and scientific analysis to either corroborate faulty eyewitness memory or replace human memory altogether.

Finally, like the cognitive revolution of the 1950s and 60s, scholars refer to the 1990s as the “memory boom” referencing the “immergence of key publications, the debates around False Memory Syndrome and developments in the academic fields of Holocaust studies, postcolonialism and poststructuralism” as projects devoted solely to the understanding, experimentation, and preservation of memory (Rossington and Whitehead 5). With the rising interest in recovered memory and repressed memory, alongside the issues of memory that trauma studies brought to light, much of the 1990s was spent trying to negotiate the claims made by the False Memory Foundation in response to the overwhelming amount of child abuse cases that surfaced because of repressed memory therapies. Out of this historical moment the psychological thriller sprang forth and explored issues of false memory by shifting the investigation to personal explorations of identity and its relationship to the past. Although the genre explored these concepts in many ways, one of the most significant is its use of amnesia as a plot device. Whether casting eyewitnesses or even its detective figure with a form of amnesia, the genre moved deeper into the territory of memory by forcing its characters to face the possibility of living a life devoid of a past. While many of these narratives center amnesia around the crucial moments leading up to a crime, others such as Tana French’s *In the Woods* (2007), Umberto Eco’s *The Mysterious Flame of Queen Loana* (2004), and Howard Engel’s *Memory Book* (2005) use the detective’s amnesia as a means of exploring the human psyche and the possibility of viewing memory as more than a simplistic plot device. What these texts of amnesia illustrate is the ongoing investment of crime fiction in the understanding and conceptualization of the human mind and memory. By wiping its narrative completely clean of the past, these texts demonstrate

that memory is and always has been at the root of the genre—but that the genre is interested not only in recovering memory, but thoroughly investigating the concept itself.

TEXTS OF AMNESIA: THREE NARRATOLOGICAL TASKS

With a brief history of some of the most influential theories and perspectives of memory from philosophy, the hard sciences, and crime fiction in mind, I return once again to extreme, rare cases of memory loss like Henry Molaison's. Crime fiction texts that address extreme cases of amnesia critically engage in conversations of the mind by bringing memory to the forefront of the plot. These narratives turn the internal world of the mind inside-out, rolling out the metaphorical CAUTION tape to designate the internal mindscape as the site of investigation. I argue that texts like Howard Engel's *Memory Book* are unique in their approach to and analysis of memory and cognition because they accomplish three narratological tasks. First, they situate memory at the center of the narrative, highlighting it as much more than a simple plot device and elevating it to the primary mystery. This is done in many ways, but one of the most recognizable is by making the detective/protagonist the one who experiences amnesia and memory-related issues. In *Memory Book*, for example, the detective suffers a severe case of amnesia along with other cognitive complications that disrupts both the flow of the narrative, and the detection of the criminal mystery. When a detective experiences amnesia, memory becomes both an obstacle in solving the criminal mystery and a new reality that the detective and the reader must attempt to navigate together. This new reality is unfamiliar and uncomfortable to readers, mostly because it deviates from the generic conventions surrounding the detective and their relationship to the reader.

The genre was built on the premise that its detective figures were not only intellectually superior, but held extraordinary memory capabilities, like the ones demonstrated by Sherlock Holmes and his brain attic. Amnesia in key characters not only disrupts traditional generic tropes, but hinders the reader's ability to connect with and ultimately compete against the detective to see who can solve the mystery first. This expectation stems from the puzzle-like structure of the genre and its reliance on narrative techniques such as first-person narration or the use of a sidekick figure to help draw readers into the act of competition with the detective. While readers are usually willing to accept a reasonable amount of forgetfulness when it comes to the occasional witness, there is less acceptance when the memory loss increases in severity, or when it interferes with the forward movement of the plot and the reader's ability to solve the crime. Even though different iterations of the genre have brought various types of detectives or modes of detection into view, the element of the detective's superiority as motivation for reader involvement extends beyond the amateur and golden age detectives. Detectives outside of these early genre iterations demonstrate superiority in areas other than intellect and memory to include characteristics such as force, ingenuity, attention to detail, and observational skills. Therefore, when these expectations and the familiar formula of the genre break down due to amnesia, readers are confronted with issues of memory as a hindrance, and as an equally important mystery that needs to be solved. When the detective faces amnesia or cognitive disruption, readers also experience these struggles and, as a result, take on a heightened interest in memory's conceptualization and hopeful recovery. In this way, texts of amnesia shift the focus by not only narrativizing memory, but making it a top priority, something that other crime fiction narratives lack. Furthermore, in placing memory at the center these narratives question and complicate traditional views of memory as simply the act of remembering or forgetting.

The second narratological task that texts of amnesia like *Memory Book* are uniquely situated to accomplish is the ability to act as a literary intercessor to disseminate old, and invigorate new perspectives on memory. Texts of amnesia both depict and deploy scientific approaches, creating cross-fertilization between the humanities and science, but they also open new avenues of inquiry regarding memory and cognition that are inaccessible to the hard sciences. In an article on the contributions of literary studies on cognitive neuroscience, Roel M. Willems explains that in cognitive science the “craftsmanship of the experimenter” is dictated by “how good one is at experimental design” (218) and creating a process that is “neatly isolated” (217). A well-designed experiment yields useful results, but Willems admits that oftentimes in these processes “It feels like we’ve thrown out the baby with all the confounding variables” (218). Cognitive science operates in a world of simulation, whereas literature “takes the finesses of language comprehension seriously” and facilitates “craftsmanship that can nicely complement the cognitive neuroscientist’s skills” (218). Cognitive science may be able to investigate examples of real-life memory to develop concepts encompassing memory, but the humanities provide the language needed to concretize, contextualize, and reconstruct these experiences in more meaningful and applicable ways. Thus, broadening and complicating traditional scientific and medical approaches and perspectives on memory and cognition.

The final narratological task involves situating the empirical study of memory within the realm of lived experience and discourse rather than solely within scientific and medical inquiry. The second task highlights how crime fiction intercedes on behalf of the sciences but in this process, it also acknowledges the shortcomings and limitations of the hard sciences in truly capturing the essence of human memory. In the case of Henry Molaison, the normal cadence of his life ceased the day of that fateful surgery when he awoke to a new normal dictated by

scientific processes, memory tasks, and controlled variables. Even after his death, Molaison's brain was "sent to a lab in San Diego, where it has been sliced into 2,401 fine sections, on slides, as a permanent neurological research resource" (Adams). Everything we know about Henry Molaison is devoid of authentic, lived experience to the point that even his brain, detached from a physical body, is of importance to the study of human memory. These approaches are neither uncommon nor unfruitful in the sciences, but they only elucidate a small portion of how memory operates in the real world. What literature, and crime fiction more specifically, offers is a glimpse into the effects of lived experience, discourse, and cultural interaction in studying memory function. While amnesia narratives may not always point to specific case studies of memory, they do craft worlds around the concept of memory and ask readers to consider how memory is impacted by life and inherently shaped by discourse and narrative. These texts imagine memory as more than a mechanism; they recognize memory as living, and constantly evolving in response to life. Texts of amnesia become testing grounds for memory because they strip it down to its most basic tenets, forcing readers to reconsider how memory is formed, stored, and recalled in everyday activities, conversations, and personal musings. In the world of crime fiction memory has no dependent variables or control groups, it is not isolated or contained but allowed to reformulate and change in response to the chaos of reality.

HOWARD ENGEL'S *MEMORY BOOK*

Crime fiction narratives have always held stock in issues of memory, but recently this trend has become more overt and regular. Paula Hawkins' *The Girl on the Train* (2015) and A.J. Finn's *The Woman in the Window* (2018) are examples of a few highly popularized texts which address memory loss as a critical plot device. While these texts and others like them incorporate memory

loss as a central theme, they focus mainly on the impact of mental illness, drugs, and trauma on the faculty of memory rather than on the function of memory itself. These texts are less concerned with investigating and understanding memory and its processes than in recovering what was lost and finding its connection to the other elements of the criminal mystery. As a result, memory is recovered when characters practice abstinence from their vices, when they seek professional guidance, or even by pure accident or unexplained revelation. These narratives emphasize the recovery of lost memory rather than the act of remembering or forgetting. Howard Engel's *Memory Book* (2005) is a part of this literary trend of crime fiction novels concerned with memory loss but, unlike other texts, Engel's narrative prioritizes the investigation of memory as a complex concept rather than simply a means to solving the central crime. Henry Molaison's case produced a plethora of scientific theories and data, and in a similar fashion *Memory Book* exists as a unique literary case study for investigating how human memory is conceptualized beyond the limited scope of the scientific or medical laboratory. The novel not only highlights an extreme, rare case of memory, but what makes it especially valuable is that it blurs the boundaries between reality and fiction. Engel crafts a narrative of superfiction that closely mirrors his own personal experience following stroke. In other words, everything that his detective experiences in the novel is filtered through the lens of Engel's own lived experience following his own personal struggle with memory and cognition. In this way, *Memory Book* not only constructs a narrative around the concept of memory by placing an extraordinary case of amnesia on display, but it surpasses the boundary of fiction and urges readers to reconsider the role that crime fiction and the humanities play in conceptualizing the human mind and memory.

Memory Book exemplifies the emerging trend of texts focused on the *how* and *why* questions of memory. As its title suggests, *Memory Book* is all about memory. Henry Molaison's

amnesia prompted an enduring search for answers and similarly, Engel's novel uses amnesia to analyze, interrogate, and theorize memory. *Memory Book* intervenes in the critical dialogue about memory and recall by accomplishing the three narratological tasks, creating a complex and heterogeneous view of human memory and cognition. In the chapters that follow, I will explore how Engel's text utilizes elements of Engel's memoir, the novel's paratext, and the narrative itself to probe memory and cognition. Chapter 1 focuses on the first narratological task of placing memory at the center of the narrative. In this chapter I explore how this narratological move establishes the human mind and memory as the central mystery, opening it up for investigation and complicating overly simplistic views of memory as merely the process of remembering and forgetting. In placing memory at its core, *Memory Book* pushes back against traditional and popularized theories of memory in ways that produce more complex, humanistic perspectives on the mind. Finally, I argue that in elevating memory to the primary mystery, it invites readers to engage in the present tense of memory through nuanced conversations about its conception. These ideas are explored through a detailed analysis of the centrality of memory in Howard Engel's own life; an in-depth inspection of the novel's paratextual elements; and through the narrative's intentional repositioning of memory by emphasizing the detective protagonist's ongoing memory issues, interactions with other characters, and repeated use of memory aids.

Chapter 2 addresses the second narratological task of establishing Engel's novel as a literary intercessor. Through its many aspects *Memory Book* intercedes on behalf of various disciplines in memory studies to narrativize unique instances of memory and translate and deploy popular theories of memory in ways that are accessible to the layperson. In this chapter I acknowledge the inherent, mostly one-sided power dynamic between the sciences and the

humanities and argue that through the act of intercession, Engel's text is critically intervening in the study of memory and cognition by deliberately pushing back against scientific and medical perspectives and methodologies and shedding light on their limitations and shortcomings. In doing so, the novel clears the way for non-scientific approaches and advocates for a more holistic, blended approach to conceptualizing human memory. In this chapter I return to the novel's paratext and focus specifically on the front cover, the author biographies, and the Afterword to show how these elements are priming readers for a complicated relationship between the sciences and literature. Next, I move to the novel's narrative and explore how its overarching structure and pacing, setting and environment, use of intercessory characters, metaphors, and the traditional denouement moment at the end are utilized as tools for literary intercession and intervention.

The final chapter considers the last narratological task which involves proposing the specific literary contributions of texts like *Memory Book* in the field of memory studies. In this chapter I contend that the novel is a unique piece of crime fiction because of its ability to imbibe the narrative with elements of reality and lived experience. The chapter begins with a brief definition of the lived experience and then establishes why and how this aspect is a blind spot and inherent limitation in scientific and medical methods of studying human memory. Unlike the hard sciences and even many crime fiction narratives, *Memory Book* breaks down the barrier between reality and fiction. This chapter traces the intimate connections between Howard Engel's experiences with memory loss and cognitive disruptions, and those of his detective, Benny Cooperman. Like the first chapter, this final section of the dissertation considers aspects of Engel's memoir, the novel's paratext, and the narrative to draw connections between fiction and reality in *Memory Book*.

The overarching aim of this project is to advocate for crime fiction's place in memory studies by uncovering the ways that extreme cases of memory, like *Memory Book*, are closely knit to the very fabric of lived experience itself. The novel is constructed from the depths of memory loss and cognitive disruption and as such it is uniquely positioned to wrestle with, challenge, and subvert traditional, overly simplistic views of memory. Through his detective, Engel interrogates the human mind and probes the depths of memory to illuminate when and how memory succeeds or fails, and the human emotions, everyday struggles, and daily complications that broken memory presents.

CHAPTER 1: CENTERING AND COMPLICATING MEMORY

In Howard Engel's novel, *Memory Book*, private investigator Benny Cooperman is hit on the head and wakes from a coma six weeks later with a severe case of amnesia. He cannot remember the details of his personal or professional life, the names of the familiar faces regularly visiting him at the rehabilitation hospital, or the particulars of the case he was investigating which led to his assault and being left for dead in an alleyway in Toronto. Perhaps worst of all, Cooperman learns that alongside his memory, he has lost the ability to read due to a rare medical condition known as alexia sine agraphia. Cooperman finds this news especially disturbing because he is a voracious crime fiction reader, and because he finds the simplest activities, such as identifying the differences between toothpaste and hair gel, beyond the grasp of his impaired cognitive abilities. As if the widespread forgetfulness and inability to read were not enough, Cooperman is also informed that he is the sole witness and lead suspect in the murder of Dr. Flora McAlpine, a professor at the University of Toronto, whose body was found in the alleyway next to his own. As the mystery unfolds, a twisted plot involving a nefarious drug ring, murder, and kidnapping all within the biochemistry department at Simcoe College begins to unravel, and readers quickly learn that Cooperman's broken memory is the only key to unlocking the novel's mysteries. Rather than focusing on the recovery of Cooperman's memory, *Memory Book* charts a path through the concept of memory itself, highlighting the importance of the protagonist's understanding and wielding of his new cognitive state to solve the mystery. The detective can do his job if—and only if—he first turns the investigation inward on his own memory to understand how, when, and why it functions—or fails.

In their book, *Narrative Prosthesis: Disability and the Dependencies of Discourse*, David T. Mitchell and Sharon L. Snyder argue that physical and cognitive disability function in literary discourse as “a stock feature of characterization” and/or “an opportunistic metaphorical device” (47). Mitchell and Snyder characterize this ongoing literary interplay with disability as “narrative prosthesis” and suggest that rather than examining disability itself, that it is used as a tool of textual abstraction. *Memory Book*, however, does not use Cooperman’s cognitive disability as a stand-in for something else but investigates it as the thing—memory and cognition—itself. In this dissertation I argue that Engel’s novel moves beyond Mitchell and Snyder’s theory of disability as narrative prosthesis, but in placing memory at its center as a means of complicating and pushing against traditional conceptions of memory, the text does bring cognitive disability into focus in an “attempt to bring the body’s unruliness under control” and incite the “act of meaning-making” that produces a more heterogeneous perspective on the human mind (Mitchell and Snyder 6). In drawing memory to the center of the text, Engel does not simply complicate traditional ideas about memory as purely a process of remembering and forgetting, but he also invites everyday readers into nuanced conversations about the human mind by making the detective’s cognitive issues relevant and relatable. *Memory Book* does not seek to erase cognitive deficits, metaphorize them as deeper social or cultural ills, or theorize them as so extreme that they become abstract and irrelevant; instead, the novel situates memory and cognition at its center as a means of complicating it and urging readers to engage in the present tense of memory and cognition.

THE AUTHOR: BLURRING FICTION AND REALITY

Memory permeates every aspect of this novel. Its plot, its subtext, and the circumstances from which it was written are obsessed with memory and its implications. This obsession starts with

the novel's author, Howard Engel, and how his own personal experiences with memory loss drive the plot of *Memory Book*. Of the twelve novels that comprise Engel's Benny Cooperman series, *Memory Book* irrefutably evokes the most authorial context. So much of the author's personal experience bleeds into this novel that, at times, it reads much like Engel's own diary. Howard Engel was born in St. Catharines, Ontario in 1931 and from a young age he was a capacious consumer of the written word. In *The Man Who Forgot How to Read: A Memoir*, Engel admits that he is an "addict of the printed word," (8) and that "Reading was bone and marrow, lymph and blood to me" (41). His passion for writing began as a child when he started creating narratives and writing dialogue for marionette shows he put on for his local community, which later led to a significant career as a writer, and eventually the executive producer for the Canadian Broadcasting Corporation. As a writer, Engel is best known for his mystery novels which feature private investigator Benny Cooperman; but what really catapulted Engel to world-wide fame was something that happened to him one midsummer morning in 2001. Engel woke early on July 31st and began his regular morning routine of fetching the daily newspaper, the *Globe and Mail*. When he sat down to read the paper, he noticed something strange:

Globe and Mail looked the way it always did in its make-up, pictures, and assorted headlines and smaller captions. The only difference was that I could no longer read what they said. The letters, I could tell, were the familiar twenty-six I had grown up with. Only now, when I brought them into focus, they looked like Cyrillic one moment and Korean the next. (27-28)

At first, Engel thought that the newspaper was an elaborate hoax orchestrated by some friends, but he soon realized that the *Globe and Mail* was not the only text he was unable to decipher. Engel calmly woke his teenage son and they called a taxi to take them to the nearest emergency room. He recalls that during the short taxi ride he was greatly confused by the street signs and billboards that had been familiar to him only the day before. At the hospital, Engel underwent a

series of scans and tests that revealed he had experienced a stroke. From this moment forward, Engel's life would be fundamentally changed. During his initial hospital stay Engel learned that the stroke had damaged a portion of his occipital cortex and impacted his memory, his vision, and his ability to read. This cognitive disturbance resulted in a rare medical condition known as alexia sine agraphia, where patients retain their ability to write, but are unable to read due to a dissociation disorder between the regions in the brain responsible for vision and language. The rarity of Engel's alexia sine agraphia is what earned him worldwide attention by doctors, scientists, authors, and news outlets; but it is his issues with memory that Engel himself suggests most dramatically changed his life.

As an author, Engel's inability to read is what first alerted him to the fact that something was wrong, but when he arrived at the emergency room, he found that the cognitive deficits extended to his memory. In his memoir Engel recalls not being able to answer many of the simple intake questions asked by the hospital staff, "I forget my name, my age, my address and a dozen other things" (31). Immediately after his stroke Engel was unable to remember the most basic personal information, and while these details eventually came back to him, over the next several days in the hospital he learned that his memory was more permanently damaged than he realized. Several key moments throughout Engel's memoir assemble for readers a general sketch of the impact the stroke had on his memory:

My memory was out of sync, out of sequence, like a badly stacked deck of cards. (36)

Time dwindled and evaporated. I don't recall losing great chunks of time...but I feel as though an editor has been working behind me, snipping the longueurs and idle times out of my life. As a consequence, I could never tell whether it was Tuesday or Thursday, whether it was March or September. (42)

Now, and for ever afterwards, I could forget the names of my nearest and dearest. I could forget the names of familiar visitors to my sick room. (44)

I could forget a word in the second part of what I was saying, even though I had already used the word a moment earlier. I could no longer depend on being able to say what I had in my mind. I had to work my way through what I had on my mind before I said it. (64)

In tests of memory itself, I failed horribly: I couldn't list the names of a dozen objects left on a tray for me to examine for thirty seconds until they were covered or removed. I was given the usual IQ tests, which gave me little trouble, but tests that required me to retain information or repeat new information got the better of me. (69)

I arrived at Massey college a day late to meet prince Philip, and last week I arrived two days late to a barbecue in the backyard of a good friend. (144)

These passages demonstrate the range of memory issues Engel experienced both directly after his stroke, and years afterwards: sequencing, recognizing the correct passage of time, forgetting names of familiar people, misplacing words he used moments before in a conversation, forgetting a list of items as soon as they are out of sight, and remembering important appointments. He highlights these memory lapses to emphasize both the complexities of memory, and how it applies to the variety of tasks that dictate one's ability to navigate the intricacies of daily life because, as John Sutton explains, "Memory bridges not just past and present, but outside and inside, machine and organism, dreams and reason, invention and sadness, creation and loss" (4). Engel's memoir is a living testament that memory not only impacts an individual's capacity to remember and recall the past, but effectively participate in the present.

Engel's account does not just explore the complexities of memory and cognition, but it participates in a much larger conversation about first-person narratives and personal and public perspectives on disability. Rosalia Baena explores Mary Felstiner's memoir, *Out of Joint* (2007) and Simi Linton's memoir, *My Body Politic* (2006) to show how life writing seeks to "understand the deep changes their [authors'] lives and bodies undergo with a severe impairment," (127) and how these perspectives ultimately lead to a more complex understanding

not only of the specific disability, but ultimately help “rewrite cultural mythologies about disabilities” (137). Memoirs that narrate disability can “serve to shift the images and narrative structures through which we see people with disabilities, in a way that is intellectually as well as more emotionally compelling than theory or analysis alone could be,” (133) and offer up what Baena calls an “affirmative model of disability” that counters traditionally negative ones (128). Furthermore, in her book, *Unruly Bodies: Life Writing by Women with Disabilities* Susannah B. Mintz suggests that first-person accounts of disability present narratives that are “not always continuous or linear,” and that these texts “present disability as a kind of work-in-progress, a process of becoming rather than an immutable fact of physicality located beyond the scope of words to liberate and to define” (4). With these perspectives in mind, Engel’s memoir identifies the personal struggles behind memory loss and cognitive deficit in ways that highlight the ever-evolving complexities of the human mind, challenge traditional conceptions of memory, and urge readers to intellectually and emotionally engage with memory and cognition on a deeper level.

The latter half of Engel’s memoir details the road back after his stroke and the role that a series of memory aids and the eventual writing of his novel, *Memory Book*, played in that journey to recovery. During his time in the hospital, the rehabilitation center, and afterwards through the support of his therapists, Engel learned strategies for coping with his memory disability that helped him work through everyday struggles like going to the grocery store and holding casual conversations. For example, during his hospital stay Engel recounts that he “learned how to cope with a waterlogged memory” by remembering the correct hospital floor based on recalling a specific “painting in the corridor opposite the elevator,” or finding his way back to his room based on the view from the window (45). Another memory challenge Engel

faced while in the hospital was remembering his nurse's name, a struggle that Benny Cooperman mirrors in *Memory Book*. To confront this repeated memory block, Engel turned to his years of literary knowledge as a coping mechanism:

Her name was Kathy Nelson. I held on to the name by fixing the first name with a thought of Heathcliff's great love, Catherine Earnshaw, in *Wuthering Heights*. Her last name is associated with the heroic Horatio Nelson of the Royal Navy. A peculiar and complicated device, but it worked most of the time, although I sometimes had to run through a long list of seafaring men from Horatio Hornblower and Peter Blood to Captain Bligh and Fletcher Christian. (55)

Engel confessed to still using this mnemonic tool,¹ and fashioning others like it, to remember Nelson's and others' names in the years following his stroke. Engel's personal history and interests impacted the devices he found most helpful in coping with his memory deficits, thus the literature that he devoured throughout his lifetime became means for recovery. In addition to the memory aids and mnemonic tricks he used for recall, Engel admits that a foundational part of dealing with his memory problems was "learning more about what memory was and what it could do and what it couldn't" (46). Part of Engel's success came through viewing memory from a different perspective and learning to understand how it operates. For Engel that meant learning where his memory's weaknesses and recognizing recall related "sand traps" that he eventually learned to avoid (64). Understanding how memory functions empowered Engel to start rebuilding his memory capabilities because he was able identify and activate his cognitive strengths.

¹ The Oxford English Dictionary defines "mnemonics" as "The study and development of systems for assisting and improving the memory." Mnemonic tools range in their methods and applications. Mnemonic tools can be simplistic like, Roy G BIV, used to remember the colors of the rainbow; or they can be more sophisticated. For example, Mary Carruthers explores what she calls the "architectural mnemonic" that uses the mental construction of a house filled with rooms and specific items as helpful tools in remembering (89-98). Carruthers draws from Cicero's *Rhetorica ad Herennium*, *De inventione*, and *De oratore*. For more on architectural mnemonics see *The Art of Memory* by Francis Yates; and "Logic and the Art of Memory" by Paulo Rossi.

Of all the memory aids that Engel used following his stroke, one of the most powerful—and influential in the writing of *Memory Book*—was his use of a memory book to supplement his shattered mind. Engel admits to always having kept a personal journal, but when his memory was no longer a reliable resource, he writes that his memory book “became my constant companion: part diary, part appointment book, part commonplace book,” and that it boosted his confidence and gave him a greater sense of purpose (65). Engel’s nurse initially gave him the memory book to help him keep track of important appointments, write down directions for getting to and from certain locations in the hospital, and jot down notes from therapy. The notebook, however, eventually morphed into an external extension of Engel’s memory where information his brain could no longer process and retain was scrawled on the lined pages and stored for later use. Initially, the memory book was meant to operate specifically within the hospital and rehabilitation settings, but Engel extended its use far beyond his initial recovery period because he found that it helped him target and combat ongoing memory issues. It became his second memory. For example, as figure 1 illustrates, Engel used the memory book to address his recurring battle with remembering the names and personal associations of the people he encountered daily. Engel’s memory problems did not cease after leaving the hospital, as an entry from June of 2004 (see figure 2) suggests. Nearly three years after his hospitalization he admits that he still uses the notebook, making direct mention that it functions as an external extension of his own mind and memory.²

² Extended mind theory originates in cognitive science and argues that “elements other than the human brain and its internal processes play an active role in cognition” and that “Bodies, behaviors, spaces and tools are viewed as constitutive elements of intellectual activity” (Overstreet 4).

George Dalton: friend of Susan, from
the bookstore

or

Mary Bett: Michael's sister, from St.
Catharines.

Figure 1: Excerpt from Engel's memory book illustrating some of the notes he uses to aid his memory. Excerpt taken from Engel's memoir.

If this is my Memory Book, it hasn't
been doing a very good job. Or I
haven't. It hides in pockets &
drawers & stays out of sight. It's
never around when you need it.
I'll try again. Now it's June '04.
Yesterday was the 100th anniversary
of "Bloomsday." I went to help
celebrate the republication of
most of Morley Callaghan's stories.
(I would have thought that Bob
Weaver would have been there, but
he wasn't. I wouldn't have gone
either, had not Don Summerhays
told me about it & offered me
a lift with Marlin Homer, his
curiously named wife. (who
is lovely & charming.)
Barry made a good show of it at
Harbourfront, with a dixieland
band & 4 writers who spoke:
Anne Michaels, André Alexis, &
Alistair MacLeod & Margaret Atwood

Figure 2: An entry from Engel's memory book reflecting on its use and importance in his everyday life. Excerpt taken from Engel's memoir.

Figure 2 shows the evolution of Engel's use of the memory book from simple notes about people's names, to more complex thought and writing structures. Despite the advancement of

Engel's use of the memory book, it is worth noting his continued reliance on it and its centrality to helping him navigate the recall of names, places, events, and associations. Of particular interest is the beginning of this entry where Engel comments on the elusive nature of the memory book and writes that it "hides in pockets and drawers and stays out of sight. It's never around when you need it." His commentary is intriguing because it illuminates both the nature of the physical memory book, as well as the cognitive function of memory itself. Just like the memory book is not always readily accessible, neither are the thoughts and facts that we wish to recall at a moment's notice. This excerpt illustrates that Engel's external memory aid operates similarly to the authentic, and oftentimes flawed, faculty of human memory itself.

Memory Book was born out of Howard Engel's personal tragedy. The novel rests at the intersection between literature and medical/scientific experience of memory loss and recovery, and as such, the narrative that it constructs is uniquely infused with both the lived experience of recovery and the metaphors of contemporary scientific memory theory. The author writes from a position of real-life experience and authority rather than having to rely on research on the topic of memory loss; so, in many ways, *Memory Book* becomes a work of ethos-infused superfiction precisely because of the authorial context in which it was written. Engel is clear in his memoir that of all his Benny Cooperman novels, *Memory Book* most closely reflects his own life and experiences following his stroke. It is also interesting to note that the novel was Engel's first published work following his stroke and that he wrote it amid his recovery. Engel admits to drawing heavily from the "hundreds of details of hospital life," that he diligently scribbled down in his memory book, and to adapting "the people I knew into fictional characters" presented throughout the novel (110). Engel relies on these personal details and experiences not only to add authenticity to his narrative, but because they were the freshest and most vivid in his mind.

Inspired by the details of his own life, Engel was able to successfully compose another book and reclaim his identity as an author. In many ways, *Memory Book* is a traditional crime fiction narrative with a mystery that needs solving; but on another level, this novel investigates scientific theories of memory and cognition in deeply personal and real ways. Of placing memory at the center of his novel Engel writes,

I tried to recreate my own awakening consciousness as I was acquainted with its changes from day to day. I tried to recreate the lapses of memory as they affected me back then, and still to a lesser degree afflict me today. I began meditating on the underbelly of the plot that would bring about these changes in Benny Cooperman and serve to form an acceptable story line. (110)

Engel takes great care to intentionally breach the subject of consciousness and memory in his novel, and he purposefully recreates his own experiences through those of his protagonist. In crafting *Memory Book* Engel forms and maintains a sense of symmetry and balance between the generic conventions in which he writes, and the theoretical and practical implications of the “lapses of memory” and cognitive impairments he experienced firsthand. The next chapter will discuss in detail the parallels between Howard Engel and Benny Cooperman and their respective experiences to illustrate how experience-informed fictions offer more richness and detail than scientific case studies, but first I will uncover the ways that the novel brings memory to the center and complicates simplistic views of recall for its readers.

THE PARATEXT: CLUES POINTING TO MEMORY

Stories of Howard Engel’s experience after stroke have been widely publicized in news outlets ranging from *The New Yorker* to *The Daily Globe and Mail*, but if readers encounter *Memory Book* without knowing the author’s background, the novel’s paratext cleverly primes readers for an intimate encounter with memory and cognition by touting the novel as a medicalized work of crime fiction with scientifically endorsed fictionalized elements. In his seminal text, Gérard

Genette argues that a text's paratext plays an important role in its reception even though these paratextual elements have been traditionally downplayed or ignored altogether. In addressing the history of paratext he demonstrates that "texts are rarely presented in an unadorned state" and that analyzing these elements plays an important role in capturing a text's overarching essence or aura (1). Genette explains:

And although we do not always know whether these productions are to be regarded as belonging to the text, in any case they surround it and extend it, precisely in order to *present* it, in the usual sense of this verb but also in the strongest sense: to *make present*, to ensure the text's presence in the world, its "reception" and consumption in the form (nowadays, at least) of a book. (1)

Genette suggests that paratext both surrounds and extends a text not just to "*present* it" but to "*make [it] present*," allowing its contents to inhabit the world through its reception and consumption by its audience. Paratext, therefore, brings a text into contemporary culture and society in tangible ways that extend beyond the reach of its contents. Genette expands on this idea, arguing that paratext operates as "a zone not only of transition but also of *transaction*: a privileged place of a pragmatics and a strategy, of an influence on the public, an influence that - whether well or poorly understood and achieved - is at the service of a better reception for the text and a more pertinent reading of it" (2). The paratext takes on a transitional nature, allowing the text's content to move beyond the boundary of the physical book. Furthermore, the paratext establishes a transactional relationship with its readers that—In *Memory Book*'s case—comes in the form of ideas and conceptions of memory and human cognition.

The Title. The text's simplest, most overt aspect—its title—makes a strong gesture to this fact. *Memory Book* is exactly what its title suggests, a story about memory; a narrative that unrolls the metaphorical "CAUTION" tape across the surface of the human mind, offering it up for investigation. The title evokes a connection to the author while simultaneously hinting to readers

the possible avenues the narrative will explore. As a closer analysis of the text will uncover, the title doubles the meaning of “memory book” to represent both the physical memory aid that Benny Cooperman uses to supplement his distorted memory, and the investigation of the human mind that the text encourages in placing memory at its center. For Cooperman, the details that he writes in his memory book eventually lead him to the solution of the crime by allowing him to gather, reassemble, and interpret the missing pieces of his memory. On a larger scale, however, as a piece of literature, *Memory Book* operates on a larger metacognitive scale to broadly sketch out different theories and perspectives of memory and interrogate them like a character in the story. Plainly speaking, Cooperman’s memory book helps solve the criminal mystery, whereas *Memory Book* as a novel works to investigate the mysteries, and contemporary cultural practices, surrounding memory. This novel is all about memory, the title says as much, but in bearing this name *Memory Book* establishes a connection with its author, hints at a crucial aspect of the plot, and suggests that memory will be probed beyond the purview of the criminal mystery.

The Front Cover. The novel’s front cover serves as another strong indicator of the centrality of memory and the author’s personal connection between the fictional narrative and Engel’s own real-life experience. The 2006 edition published by Carroll & Graf Publishers, an Avalon imprint, is the only hardcover version of the novel and is the sleekest of the three editions (see figure 3). The elements of the cover include an unobtrusive, blurry background; a variety of texts, fonts, and coloring; and one small image. At first glance, the cover appears to have a solid black background, but upon closer analysis an obscured, faded pattern of letters is revealed. On some parts of the cover these letters are barely noticeable and fade almost entirely into the black background. As the eye moves towards the center of the cover where the title and the author's name are listed, the letters in the background grow more distinct with a golden hue. In terms of

text, the cover incorporates a variety of fonts to highlight different elements. For example, the novel's title and the author's name are depicted in the same large, golden lettering. Utilizing a different, much smaller white font, a line of text evenly separates the cover into two equal halves with the novel's title printed above and the author's name listed below. This dividing line of white text reads, "A Benny Cooperman Detective Novel." In two entirely different white fonts there is a line of text at the bottom of the cover that states, "With An Afterword By Oliver Sacks, MD" and at the top of the cover there is a short review from *Kirkus Reviews* that reads, "One of the most unusual and affecting mysteries ever."

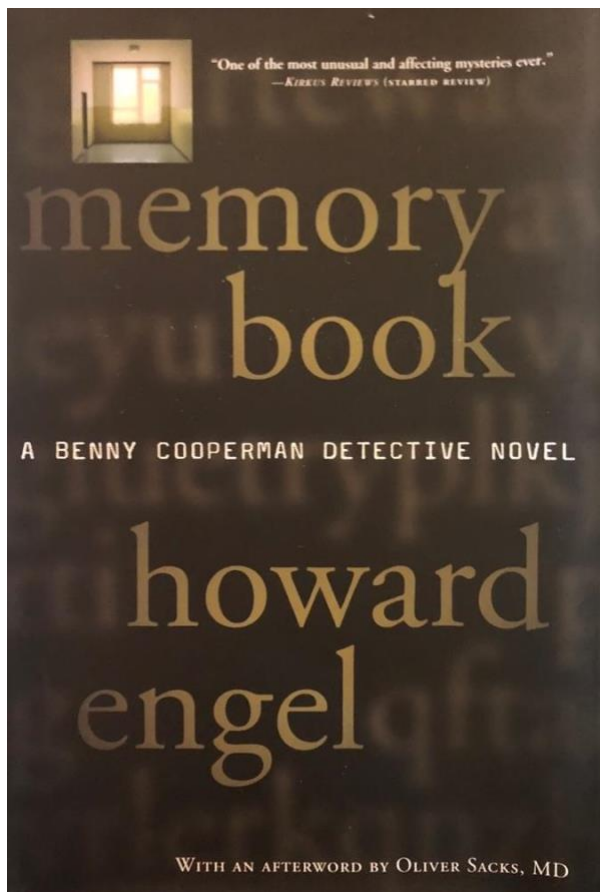


Figure 3: *Memory Book* front cover, hardcover 2006 version.

The cover's tone is serious, solemn even, and feels like a familiar addition to a genre that regularly engages with the horrors of crime and complexities of justice. The cover's black, white,

and gold color scheme, and the four different fonts that lack flourish present an aura of professionalism and seriousness, an overt gesture to the magnitude of the novel's content. The cover's announcement that its Afterword is written by "Oliver Sacks, MD" mirrors and reinforces this tone and suggests that the novel uses the appeal of popular neuroscience to advertise and sell the text. The fact that Oliver Sacks is a well-known and respected neuroscientist gives additional evidence as to the novel's subject, preparing readers to enter a medically endorsed exploration of the human mind upon opening the fictional book.

Alongside the cover's coloring, typesetting, and mention of Oliver Sacks, one additional element contributes to the serious, medical tone established by the front cover: the image. The small, square image at the top left-hand corner depicts a corridor that could easily be placed within a hospital setting. The industrial light fixtures, smooth linoleum flooring, muted paint colors and patterns, and the window and open doorway at the end of the hallway leading either to a patient's room or a stairwell all evoke the familiarity of the end of a hospital corridor. This image suggests that the protagonist, Benny Cooperman, will find himself in a hospital or under the influence of the medical community at some point in the narrative. A closer analysis of the image reveals that the window at the end of the corridor is multi-paned, with each pane of glass of a differing shape and size. This detail lends two possible interpretations. First, if readers take other contextual clues from the cover such as the title and the mention of Sacks into consideration, one could reasonably infer that the perspectives on memory will be multiple and varied. The second interpretation of this visual detail also relates to memory as fragmented or fragile and in need of being reassembled or patched together to reveal the mystery of what lies beyond.

In addition to generating general expectations for tone, content, and reach, the novel's cover buttresses the inextricable relationship between the author and the narrative he crafts. One way this relationship is established is through coordinated usage of specific fonts and colors. The cover utilizes four different font styles to set apart the review, the title, the detective series, the author, and the announcement of an Afterword. The only two fonts that match in both style and color are the novel's title and the author's name, and each are set on one side of the dividing line created by a line of white text. The fact that the title and the author use the same font style and coloring points to the connection that the novel makes between the story told in the novel, and Engel's own struggle with memory loss and cognition after his stroke in 2001. One final detail that hints at the intentional association between author and story is the subtle, blurry background of the cover. The hazy letters arranged in a random, nonsensical way are representative of the cognitive effects of alexia sine agraphia which renders patients unable to read. The fact that the letters do not resemble anything coherent and that they are hazy in appearance symbolizes the way that sufferers of the medical condition are unable to recognize letters or assemble them in meaningful ways. This subtle detail lends a rich interpretation that again reinforces the intimacy between the author and the narrative and visually primes readers for their experience while reading the text.

The Front Dust Flap. One of the things that makes the paratextual elements so effective in situating memory at the center of this text is their repeated mention of Engel's stroke, memory loss, and alexia sine agraphia. The authorship behind *Memory Book* is what breathes life into the novel's narrative and feeds the reader's trust that the Engel is not simply writing from a place of research or book knowledge, but from one of authenticity and recovery. Beyond the novel's front cover, the front flap of the dust jacket (see figure 4) relays a short plot summary alongside a

statement given in bold, black lettering announcing that the “detective’s affliction mirrors its author’s—the condition *alexia sine agraphia*, which has ruined his memory and rendered him unable to read.”

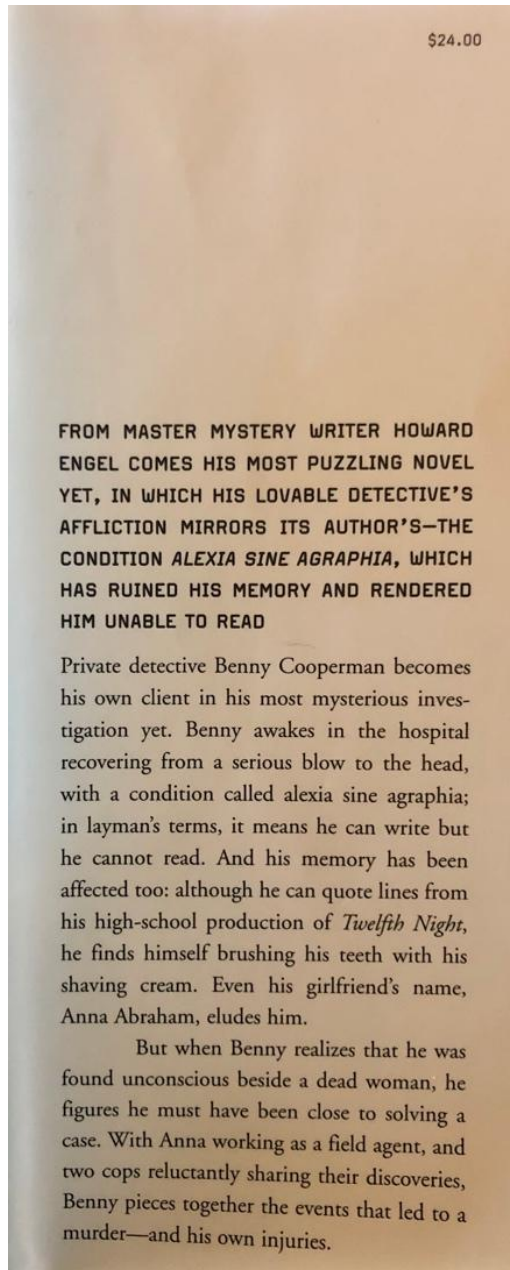


Figure 4: Inside front flap of the novel’s dust jacket, 2006 hardcover version.

This statement echoes the reviews that can be found on the novel's back cover, but further specifies Engel's cognitive disability—alexia sine agraphia—as correlating with his inability to read. The elements of the paratext covered thus far work in sequence to draw readers into exploring the text by drawing them into the mystery of the disability and slowly revealing with each successive paratextual element another clue. Each element has also stressed the importance of the relationship or connection between the author and his text, imbuing the narrative journey readers will soon embark upon with ethos-infused authenticity. In placing this statement next to the novel's succinct plot description, this bit of paratext links the author to his narrative. If the clues present on the front cover are too subtle, this move overtly announces the crucial relationship between Howard Engel's personal experience and the Benny Cooperman story he portrays in *Memory Book*. Engel's creative rendering of Cooperman grows out of his own "afflictions" and the loss of his short-term memory and ability to read, adding credibility to the perspectives about memory and cognition provided throughout the story. Benny Cooperman's story is Howard Engel's. Everything readers know about Engel's story can be superimposed on Benny Cooperman's and vice versa.

Since the author is at the heart of this text, so too are his cognitive struggles; especially regarding his "ruined" memory, which the statement on the dust jacket emphasizes. The use of the word "ruined" is important here because it stresses the extent of the memory problem, rendering it both dramatic and hyperbolic. Engel is not working from a cognitive position of memorial distortion, fragmentation, or dissonance— but from one of utter destruction. The image evoked by the word "ruined" suggests a dilapidated building or structure that has been destroyed by age or battle and can no longer fulfill its intended function. In *Memory Book*, the faculty of memory operates (or fails to operate) in a similar fashion because even though parts of

the structure remain, it cannot accomplish its original purpose. The word “ruined” also urges readers to push beyond the generalizations or oversimplifications of popular theories of memory and imagine an intentionally complex view of what memory is and how it operates. If readers are meant to conflate Engel and Cooperman’s lives, as the novel’s paratext suggests, then they should expect that memory and cognition will play an essential role in the novel rather than act as a simplified plot device. Thus, the use of the word “ruined” is intentional in demonstrating the extent and magnitude of the cognitive damage and as such, infers that the perspectives and theories of memory presented throughout the narrative will be many and heterogeneous. In another sense, “ruined” signals a simultaneous look backward into the past, and forward into the future. That is to say that if readers are to believe that Engel/Cooperman has a “ruined” memory, it means that his recollections of the past are irrefutably damaged and that the cognitive disturbance is so great that the ability to encode, store, and recall moments in the present is also damaged. Memories have not only disappeared, but the ability to create and remember new ones is drastically altered or inhibited altogether.

Every aspect of the book’s paratext leads readers closer to an understanding of the importance of the authorial context as well as the centrality of cognition and memory issues presented in the novel. Engel places memory at the center of the text before readers even encounter the narrative and he does so to complicate and push back against overly simplistic views of memory as just remembering and forgetting. Before readers begin their literary journey with Benny Cooperman, they are met with the intricacies of Howard Engel’s experience, the specificities of the cognitive disability, and the complexities of human memory. In the moments before the reader turns to the first chapter they are already met with a mystery—one of the

human mind and memory—and asked to fix these things in their own mind and recall them at moments throughout their reading experience.

MEMORY BOOK: CENTERING AND COMPLICATING MEMORY

Readers who bypass *Memory Book*'s paratext and know nothing of Howard Engel's personal past will still find memory at the crux of this novel. The narrative takes place in Toronto, Canada and opens with private investigator, Benny Cooperman, waking up in the hospital to learn that he was violently assaulted and left for dead in an alleyway next to a dumpster and the dead body of a female professor at Simcoe College. Cooperman learns from his nurse that he suffered a severe head injury and that he has been in the hospital for the last several weeks. Amidst this disturbing news, the nurse explains to Cooperman that he has awoken several times before and learned all this information, he just does not remember having done so. His head injury results in a complex form of amnesia where Cooperman is unable to remember the last several months of his life, and his ability to process, store, and recall new information is drastically impaired. Moreover, Cooperman learns that he has a rare cognitive complication called alexia sine graphia, or ““word blindness,”” that renders him unable to read even though he still remembers how to write (240). In the days following his most recent awakening, Cooperman pieces together that his head injury is tied to a case he was investigating regarding a professor from the biochemistry department, Steven Mapesbury, who has been reported missing. As the story unfolds, readers learn that Cooperman's injury and memory loss is tied to a nefarious drug ring being operated within the biochemistry labs at Simcoe College. With the help of his girlfriend, Anna Abraham, a literature professor at the University of Toronto, Cooperman slowly comes to terms with his new

memory while simultaneously trying to uncover the intimate link between his attack and the case he was hired to investigate.

Engel's novel draws memory to its center to highlight and complicate oversimplified conceptions of memory and cognition. The novel works to establish memory as an intimate part of life that is inherently entangled with everyday experience, but this view has not always been a staple of texts of crime fiction. In citing two of Wilkie Collins' most influential novels, *The Moonstone* and *The Woman in White*, Nicholas Dames suggests that the author narrates popular cognitive theories about memory, but that these notions come up short in capturing its authentic nature. Dames argues that in Collins' approach "reaction replaces reflection," and that this results in characters who are "accustomed to note not a train of thoughts but an automatic bodily reaction" (204). Even though Collins' characters tout complexity of mind and memory, they end up depicting it instead as a "*reaction* to overstimulation, suspense, and anxiety" (204). These types of manifestations present limited and simplistic views of memory as merely reflexive, inevitable, and unconscious. Furthermore, as progenitors of the crime fiction genre, these sensationalist novels set the precedent for theorizing memory and cognition in overly simplistic ways that downplay or ignore its complexities and the ways it factors into everyday life. Conversely, Engel's use of repeated memory mishaps in relatable and common situations suggests that memory is not just an automatic reaction to the world through the process of remembering or forgetting, but a sophisticated process in and of itself that everyone repeatedly engages with over the span of a single day. In other words, *Memory Book* deploys memory not just to highlight when and how it arises, but to complicate common depictions that have been presented by the sciences and disseminated in early crime fiction. Engel's text does not present

memory as an automatic mechanism, but a thoughtful interplay between the mind and lived experience.

Conversations with “Rhymes With.” Readers quickly recognize that memory is at the center of this narrative not only because it opens amid Cooperman’s amnesia, but because the narrative begs readers to constantly engage with and confront issues of memory loss in intentional and relatable ways. These reminders occur often throughout the text, but especially within the first few chapters as Cooperman learns from his nurse about the particulars of his condition. The initial conversation that Cooperman has with his nurse in the first chapter is one of the single-most important moments because it both establishes memory and amnesia as the centerpiece of this text, and it demonstrates one of the ways Engel complicates traditional conceptions of memory. During this conversation the nurse never directly tells Cooperman that he has amnesia. She does not have to tell him because Cooperman repeatedly demonstrates this to himself and to the readers through a series of repeated memory failures. These memory mishaps institute a pattern of forgetfulness that reinforce issues of memory loss without the need for medical explanation. For example, Cooperman struggles to remember and recall simple, presently applicable information such as the name of his nurse or where he is and why. At the start of their conversation the nurse introduces herself saying, “I’m Carol McKay, rhymes with ‘day’” (4). McKay introduces herself not only using her full name, but she adds a simple rhyme as a verbal mnemonic tool to fix it into Cooperman’s memory and make it easier for him to recall. Despite this mnemonic, Cooperman admits to himself a little further into their conversation that, “I couldn’t remember. I’d forgotten the nurse’s name, too. The pieces of the puzzle were slipping through my fingers” (5). Cooperman confesses here that he cannot remember the nurse’s name, something that many readers can relate to, but by attaching this memory failure to the metaphor

in the following sentence, he indicates that this is not necessarily a normal occurrence for him. He metaphorizes the information he is learning from the nurse during their conversation to “pieces of the puzzle,” suggesting that there is more than just the nurse’s name “slipping” from his memory. Likening his memory to puzzle pieces also evokes the image of a larger whole that each individual piece represents and that *should* fit together nicely. Not only do the pieces not fit together, but Cooperman admits that he is losing the pieces he does have, showing the constant state of forgetting his mind is undergoing.

A little while later, McKay repeats her name once again and the same mnemonic; the difference is that this time—as soon as she is finished speaking—Cooperman admits, “I’d lost her name again” (7). The first memory failure with McKay’s name is easier to accept since it is the first time Cooperman is hearing the name, and he is hearing it immediately after waking. This second incident is more alarming and feels less familiar or relatable to readers because Cooperman forgets the nurse’s name in the same instant that it is announced. At this point, readers have experienced Cooperman being told and forgetting the nurse’s name and the mnemonic twice in the span of four pages. After this example, and toward the end of their conversation together, readers see that Cooperman repeatedly refers to McKay as “Whats-Her-Name” again on pages 7 and 12, echoing that neither her name, nor the memory mnemonic has remained in his mind. Even though McKay becomes his primary medical caretaker and regularly engages in conversation with him throughout the entirety of the narrative, Cooperman is never able to remember her name and instead refers to her as “rhymes with” for the duration of the novel. This moment in the opening pages of the text demonstrates to readers that they are dealing with an amnesiac, while also exhibiting the speed and recurrence of his forgetfulness. Forgetting McKay’s name seems inconsequential in the grand scheme of things; remembering names is a

common memory lapse, after all. What is significant is that this type of memory failure is one that readers can relate to and that causes them to pause and consider memory on a deeper level. It calls attention to the inherent fallibility of memory as a cognitive function and activates awareness to everyday functions of memory while concurrently establishing memory as the very essence of the entire text.

Another way the novel establishes a pattern of forgetting to physically demonstrate and complicate memory is through Cooperman's own repetition in his thoughts and his replies to nurse McKay. When Cooperman wakes, he opens his eyes to "white walls and suspended curtains" and the first question he is asked by McKay is if he knows where he is. Despite the obvious visual clues that he is in a hospital, Cooperman admits that he does not know where he is, and McKay explains that he is at the Rose of Sharon Rehabilitation Hospital in Toronto. Again, Engel demonstrates a relatable memory failure as many readers can probably remember waking up and forgetting, or not initially recognizing, where they are. Cooperman willingly accepts that he is in a hospital, but what is more difficult for him to remember is which hospital and in what city. During their conversation McKay tells Cooperman in a variety of ways that he is in a hospital in Toronto, but he is unable to cement this in his memory. When he asks the nurse if his parents know that he is in the hospital and if he has had any visitors, McKay tells him that his parents and brother have visited regularly. Upon learning this information Cooperman exclaims, "'*Sam* drove in from Toronto? Seventy-five miles?'" and she reminds him yet again, "'But you're *in* Toronto'" (6). A little later when asked where he lives Cooperman replies, "'Right here. The banks of the Eleven Mile Creek. My father runs a store,'" and she promptly replies, "Good! Except that this is Toronto, not Grantham'" (9). His repetitive forgetfulness reminds readers that Cooperman's memory is malfunctioning and even though amnesia has not

yet been mentioned in the text, its presence is constantly evidenced throughout the conversation with McKay. It may be tempting to downplay the forgetting of names and locations as insignificant, but these instances reveal that Cooperman is dealing with issues of information encoding, storage, and recall and that he is having trouble operating in the present, much like the case of Henry Molaison that was discussed in the introduction. Amnesia has not been mentioned but readers are experiencing it through the protagonist's narration and are seeing that it applies not only to events of the past, but to his ability to function in the present.

Recalling the nurse's name or the city where he is hospitalized is not the extent of Cooperman's manifestations of amnesia, however, he also cannot recollect how he was injured. Initially, readers may not find this too surprising as it sets the scene for a common trope of memory loss crime fiction, but the important distinction here is that he cannot remember the type of injury that has caused his amnesia even after being told several times by nurse McKay. One of the first questions McKay asks Cooperman when he wakes up is whether he remembers why he is in the hospital. To this question he replies, "I was on a train before. There was an accident. A train wreck" (4). McKay slowly explains to him that this is incorrect and that there was no train involved in his injury. Less than a page later, however, Cooperman again comments to himself, "My being here had something to do with a train," and he verbalizes this thought to McKay saying, "I think I was in a train wreck," only to have her reply, "No, Mr Cooperman. No trains, cars, or buses" (5). Before their conversation comes to an end, Cooperman mentions the train wreck to McKay a third time and is corrected yet again. Despite being repeatedly corrected, Cooperman goes on to repeat this idea—either to himself or others—two more times within the first thirty-five pages of the novel. Like forgetting McKay's name and thinking he is in Grantham instead of Toronto, the failure to encode and recall this important personal detail about

his injury testifies to Cooperman's persistent memory failures consistent with amnesia. Even though the novel's narrator is unable to recognize the barrage of memory mishaps, the reader experiences them repeatedly; fixing in their mind how crucial memory function is to this narrative.

If Cooperman's repetitions and memory failures are still not enough to convince readers that memory is at the heart of this text, this first conversation with McKay offers more overt clues to its centrality and complexity. McKay tells Cooperman that he has suffered a head injury, but she never explicitly mentions amnesia. Instead, she says, "You may not remember me, Mr Cooperman, but you've seen me before. In fact, we've had this same conversation before" and, "We may have to go over it again tomorrow. It's all part of what we expect" (5). McKay's commentary is important because it is the closest she ever gets to voluntarily offering up any indication about the severity of Cooperman's injury or its impact. Cooperman does not respond to what McKay says but appears to move right past it because, once again, he is stuck on the idea of the non-existent train wreck. Cooperman does not take stock of this information, but the reader does. The reader therefore takes on the burden of Cooperman's memory, becoming an external extension of the detective figure's memory who is responsible for recognizing the seriousness of his memory loss and the implications this has for the narrative journey ahead. McKay's confession that "you've seen me before" and, "we've had this conversation before" comes as a surprise to the reader and shows that a larger pattern of forgetfulness is at hand. This statement gives readers a sense of the extent of Cooperman's memory loss and even though he does not recognize this larger pattern, readers acknowledge that this repetition is a token of amnesia. The earlier repetitions relating to McKay's name or the city are suddenly put into clearer perspective as readers come to the realization that Cooperman does not simply lose

details but entire days, maybe even weeks to his shattered memory. Cooperman's memory is being laid bare for readers to probe and the holes, limitations, and parameters of his cognition are quickly becoming apparent.

McKay and Cooperman's conversation draws to a close at the end of the novel's first chapter but not before amnesia is explicitly addressed and any doubts that readers may have about memory being a key component of this text are definitively dispelled. It is true that McKay never comes forward and freely offers up the fact that Cooperman is suffering from amnesia, but eventually he comes to this realization on his own when he is asked to recall his latest cases. At this moment in the narrative, Cooperman has just finished relaying a series of names and facts from his elementary and high school years:

I thought of the bus ride with wool-clad kids my own age. I could see the monumental façade of the collegiate, girls going up and down the stairs, carrying books before them, hugged to their young bosoms. I could see faces of my fellow students, lined up for an annual photograph, the teachers looking grave and serried ranks. (10)

This moment of memory recall is drastically different from what readers have seen from Cooperman so far because not only is he able to remember a past moment, but he is able to remember intimate details of what people were wearing, the school aesthetics, and the looks and movements of the people recalled to his memory from a moment in his childhood. He can reassemble the distant past in beautiful detail but when asked to remember something from a few months ago he admits, “When I get close to the present, my memory is not as certain. Things, images, are more like Jell-O that hasn't properly set yet” (10-11). The contrast portrayed here illustrates that Cooperman's memory loss extends beyond his ability to recall small details such as names and places, and that his amnesia manifests as something more complicated. Engel pushes back against popular theories of memory that characterize it as either simple forgetting or remembering. Memory cannot be hemmed in by such definitive terms because, as this example

illustrates, sometimes someone with amnesia can remember certain things and forget others. Even though Cooperman experiences amnesia, this does not mean that all his memories are blotted out, but that in moving forward he must adjust to a newly functioning memory. Other crime fiction texts tackling memory loss usually depict eyewitnesses with a simplistic version of amnesia and, even then, the memory loss that is depicted usually comes in the form of intermittent memory gaps or trauma-induced memory blanks. *Memory Book* is different because the private investigator is the one with amnesia and Cooperman's memory loss is not limited to a few moments in time surrounding the crime but encompasses his entire recent past and present. The contrast between Cooperman's memories of the distant and recent pasts here evidence the differences in his cognitive abilities and shows how memory works in one instance but is "more like Jell-O that hasn't properly set yet" in others. While other crime stories find their struggle in trying to extract the memories of a specific moment in time surrounding the criminal act, Cooperman's memory loss is not as predictable. The boundaries of his amnesia are blurry, messy, and constantly shifting. In one moment, he can remember the names of high school teachers, and in another he forgets which tube contains hair gel and which toothpaste. Memory is presented as much more complex in this story than in other crime narratives and because Engel's experience is conflated with Cooperman's, this perspective is endowed with more plausibility and gravitas.

This moment of contrast between the distant and recent pasts is also significant because it leads to Cooperman's personal acknowledgement of his cognitive condition. Only when McKay asks Cooperman to recall his recent cases does he seem to recognize that something is not quite right with his memory. Even though up to this point in the conversation he has had a multitude of memory mishaps, he has not noticed that anything is amiss until his work as a private

investigator is brought up and McKay pushes him to ““Keep thinking about your work”” (11). He tries to recall any cases from the last several months but admits to himself, “All I could find were fragments, shards, confetti, like the pieces of a smashed dish. Echoes of voices in a great hall. Maybe a museum. Nothing that made sense” (11). Cooperman’s metaphors for his memories of the recent past signify brokenness, demonstrating his awareness that his memory is on the fritz. The narrator’s use of the words and phrases “fragments, shards, confetti,” “pieces of a smashed dish,” and “echoes” imply a fracturing of memory where disparate pieces may still linger but do not assemble into anything coherent. As Cooperman continues to try to recall any of his recent cases, he finds himself drawn yet again into his childhood where things still make sense, but he eventually gets so mixed up in his thinking that he forgets McKay’s original question. Cooperman becomes uncomfortable when he is unable to remember his work, and this is when he finally realizes that he has memory loss. McKay never tells Cooperman that he has amnesia, but eventually he figures this out on his own and asks, ““tell me about my amnesia”” (12). It is important that Cooperman does not learn of his amnesia from anyone else and that what brings him to the awareness that his memory is impaired is the thought of his work as a private investigator. This is crucial because it intricately knits issues of memory to crime and alerts readers to the fact that mysteries of memory must be confronted to solve the central crime. To unravel the mystery Cooperman will need to learn how his new memory functions and where it fails. He does not suffer from a few memory gaps that can easily be recovered. His memory is inherently broken and he must confront the mysteries of the mind if he has any chance of working out the criminal mystery. In the span of a short conversation with a single nurse, readers experience a pattern of forgetfulness that establishes memory and amnesia as a key component of the narrative; one that not only complicates the plot but operates as a parallel mystery to the

crime. If the subtleties of Engel's writing are lost on any reader and there is any doubt that memory will be at the center of this text, the protagonist himself is eventually able to recognize and explicitly express that amnesia is at play and will continue to be something that he wrestles with throughout the remainder of the story.

The Detective Narrator. The initial conversation between Cooperman and McKay sets the tone for how the rest of the narrative will go by establishing a baseline for the detective's abilities. One thing that makes Engel's novel so unique is that it breaks away from the traditional conventions of the genre by reimagining the detective figure, their capabilities, and their centrality to the mystery. The genre was built around detectives like Poe's C. Auguste Dupin, Conan Doyle's Sherlock Holmes, and Christie's Hercule Poirot; all exemplary investigators who are always one step ahead of the reader in solving the mystery. These detectives are highly eccentric, have an uncanny ability to find and interpret physical clues, and boast exceptionally high IQs. Detectives, like Sherlock Holmes, accomplish unprecedented feats of memory and claim to do so by neatly organizing the necessary details in a tidy brain attic or mind palace where they can be easily retrieved and applied to the mystery at hand. Even though different iterations of the genre have brought different types of detectives or modes of detection into focus, this element of superiority extends beyond classic investigative traits to include others such as violence, ingenuity, wit, forensics, and pure grit. In his chapter entitled, "Rules of the Game of the Crime Novel," Helmut Heissenbüttel claims that the detective is "equipped with capabilities that mark him out as a superhuman being. He is immortal and has a higher knowledge, omnipotence. Neither characteristic should be interpreted as something accidental, as exaggerated subjectivism, or as the secret self-glorification of the author: they must be taken literally" (87). According to Heissenbüttel, the detective is superhuman, superior in every sense;

and it is precisely this exceptionalism that drives the competition between detective and reader to solve the mystery. The expectation created by the generic form is that the detective is remarkable and when this is not the case—due to injury or otherwise—readers notice.

Memory gaps and mishaps are usually reserved for traumatized eyewitnesses rather than detective figures, but Howard Engel sets this convention on its head by making Cooperman the amnesiac. Engel's detective is marked by a significant weakness rather than an extraordinary characteristic or talent. Of course, *Memory Book* is not the only crime narrative to bestow forgetfulness on its detective but, in most cases, there is a clear path through the memory loss that leads to the detective regaining their skills and solving the crime. For example, in Paula Hawkins' *The Girl on the Train* (2015) the detective figure suffers memory gaps due to alcohol-induced blackouts, and in A.J Finn's *The Woman in the Window* (2018) the investigator figure experiences memory gaps as a result of abusing prescription drugs and alcohol following a horrific personal tragedy. In both cases, and many others like them, the detective characters are able either to recall their lost memories or regain their forfeited abilities by confronting their trauma through the help of therapy, hypnotism, or abstinence from substance-related blocks. As long as memory issues are resolved and the detective can regain their special abilities, memory lapses are allowed to exist in the investigative figures as a fun plot twist. *Memory Book* is different.

Benny Cooperman is an anomaly, an aberrant detective. In *Memory Book* he is both detective and narrator, but as the initial conversation between him and nurse McKay demonstrates, his amnesia hinders his ability to adequately perform in either position. Within the first few pages of the text readers experience Cooperman's memory mishaps in the form of repeated questions, inability to remember the nurse's name, and through his use of metaphor to

vocalize his trouble holding onto and recalling information. In contrast to Holmes' perfectly ordered brain attic, readers of *Memory Book* are presented with a detective who muses, "I wondered whether there were new holes in my head developing every hour. Was I in some kind of diminishing spiral of forgetfulness? Was my memory leaking out of me like oil from the elderly transmission in the Olds? " (95). Rather than holding onto information and expertly applying it like Holmes, Cooperman's mind is full of "new holes" that are "developing every hour" and he explains that his memory is "leaking out of me like oil" which paints the picture that his memory retention and application is virtually nonexistent. Holmes' brain attic is perfectly arranged for efficiency and accuracy, yet Cooperman's mind is a "diminishing spiral of forgetfulness" and an "elderly transmission" of a car. Nothing about Cooperman's mental capacity or recall abilities expresses confidence or superiority, and as such, he is directly opposed to the conventions of the traditional detective figure. Cooperman himself acknowledges this deviation by explicitly referencing classic detectives and his inability to meet their standards because his mind is carrying him away from "sense, logic, and deduction," qualities specifically attributed to detective figures (97). During this same mediative moment Cooperman says to himself, "My little grey cells had to do this, but they had to do it on their own. My memory had become like a sunspot. The act of looking at it burned it away in a flash"(97). Here, Cooperman directly references Christie's distinguished detective, Hercule Poirot, and his famous reference to his "little grey cells" to call attention to his brain. For Poirot these "little grey cells" refer to his superior intellect and abilities as a detective, but for Cooperman they are not working properly, and trying to force his memory to recall only produces a "sunspot" that burns away "in a flash" when he tries to focus on his memory too closely. These moments in the novel indicate a marked difference between classic detectives and Cooperman and suggest that mental acuity and perfect

memory will demarcate Engel's detective as intentionally different from what readers are used to encountering in texts of crime fiction. This unfamiliar territory forces them to be more mindful of how the detective navigates the twists and turns of the criminal investigation while also wrestling with his new memory and learning about cognitive function along the way.

Another way that Cooperman is called out as being different from traditional detective figures is his positioning as an extreme outsider unable to function in the present. In her book, *Dime Novels and the Roots of American Detective Fiction*, Pamela Bedore suggests that all successful detectives, no matter the subgenre, must be a "liminal figure, able to move effortlessly between worlds and to adopt identities that cross boundaries of class, race, and gender" (28-29). The detective's eccentricity, as in the case of many amateur and golden age detectives—or their moral ambiguity, as in the hardboiled tradition—is what allows detectives to transgress borders and gain access to people, places, and information that help solve the crime. Bedore claims that the detective is "often an outsider to all the defined groups and classes within a text," and that it is this unique positioning that adds another advantage to their investigative repertoire.

Cooperman's amnesia *does* position him as an outsider in many ways, however, Engel takes this outsider status to such an extreme that it does not work in the detective's favor but detrimentally isolates him. In other crime fiction texts memory loss manifests in the absence of a few key moments, hours—or in the worst cases—a couple of days; Cooperman has lost the last several months. Remembering the past is not Cooperman's only problem though because his amnesia is compounded by the fact that he is unable to read, which makes functioning in the present a daily struggle. For example, after he finishes speaking with McKay he goes into the bathroom and finds his toiletries unpacked and laid out before him but he is unable to identify their contents: "I picked up one bottle after another without recognizing the proper use of any of them. Was this

toothpaste or shaving cream? Was this mouthwash, aftershave, or hair tonic? Smelling the content helped solve the mysteries, but I know that at least once I cleaned my teeth with hair gel” (22-23). In this moment readers get a painfully clear picture of the limitations of their detective. Cooperman’s cognitive function is so impaired that he cannot accomplish simple daily tasks, let alone remember the past moments leading up to his assault or the details of the cases he was working on before entering the hospital. Cooperman cannot focus singly on recovering lost memories because he must rehabilitate his entire brain and body. This is reiterated throughout the novel by the fact that everything takes place within the hospital setting where Cooperman is constantly being visited by doctors and nurses, having tests run, and participating in physical, cognitive, and occupational therapies all while trying to solve the crime in his limited free time and with limited cognitive function. Cooperman is an outsider but not in the way that Bedore explains. Rather than an advantage, Cooperman’s outsider status is too severe, functioning as a detriment to the criminal investigation. Cooperman must relinquish the coveted detective status as superior, and instead outsource his investigation to other characters and ultimately, the reader.

Scholars identify detective figures in crime fiction as occupying a special position. They are special because of their intellectual prowess, their deductive reasoning skills, their moral ambiguity, their observational aptitude, or their unbridled grit. Whatever their special set of skills, they are unique to the detective and place them in an outsider position because they are exemplary. *Memory Book* is not the first, or the only Benny Cooperman novel, so readers who are familiar with Engel’s witty, noir-loving detective know that the Benny Cooperman they experience in this novel is unlike the investigator they know and love. Cooperman’s amnesia and alexia sine agraphia position him as an outsider but this status proves too extreme to provide any advantages in solving the criminal mystery without help from others. What Cooperman’s

extreme outsider status *does* do, is perfectly position him to investigate the mystery of the mind and memory; and he takes on this investigation alongside the criminal one. Cooperman must learn the details of his condition, his cognitive limitations, and the way that his new memory functions to make sense of and solve the crime; and while he does this, he probes a deeper, more existential mystery about human memory.

Memory Aids: Coping Strategies and External Extensions of Memory. Benny Cooperman's memory is in shambles. At this point in the narrative this should be abundantly clear to readers. Wearing a hospital gown and with a mind "made of Swiss cheese," Cooperman neither looks like, nor has the mental capacity to think like the detectives that readers of crime fiction are accustomed to following (28). Cooperman is different; but not in the ways Sherlock Holmes or Hercule Poirot are different. He is cognitively challenged, the information that he provides is faulty, and his memories of the past are scarily unreliable. Cooperman cannot remember who visited him in the hospital the day before let alone who hit him on the head; and he certainly cannot recall the case he was working on at the time of his assault. It is clear early in the novel that this detective will need to alter the way he investigates the crime to successfully arrive at the dénouement moment at the end of the narrative. Cooperman is aware of the challenges that he faces and he even admits that he will have to do things differently this time around, "My new memory required me to build a latticework of aids to criss-cross my experience and expectation" (78). Cooperman assembles and relies on a network of external memory aids to help him gather, record, and analyze the clues surrounding the mysteries of the crime and his memory lapses. These memory hacks, so to speak, come together to construct a broader understanding of how memory functions because if Cooperman can pinpoint when, how, and why his memory fails, he

can take compensatory measures to regain control over his own mind. Cooperman must tackle the mystery of his ruined memory before taking on the crime.

One way that Cooperman begins building this “lattice-work of aids” is by outsourcing his investigative processes to a range of individuals with special expertise and access. Readers learn from Cooperman’s initial conversation with McKay that he has a lot of catching up to do, both in terms of his memory, and in reconstructing the contextual clues surrounding the crime. He needs help doing this. Soon after waking, Cooperman is visited by Staff-Sergeants Jack Sykes and officer Jim Boyd and questioned about what he remembers from his assault. Cooperman is unable to recall anything—let alone any useful details for the police—but the visit proves beneficial as Sykes and Boyd readily offer up important contextual details and evidence. Cooperman has worked with both officers in the past and there is a collegial, friendly relationship at play during the visit that eventually reveals crucial clues about the investigation. Boyd and Sykes see Cooperman as a friend and tangential colleague, and they are willing to divulge information about the case that they would normally keep concealed from a regular victim. The two men regularly visit the hospital, divulging new leads and evidence, and giving Cooperman updates as they arise. The officers supply the background information that Cooperman has lost to his amnesia; hence they operate as external memory aids by providing the information that he can no longer remember on his own.

While Sykes and Boyd help fill in some memory gaps, other characters act as Cooperman’s memory aids by physically collecting new clues and gathering information as an extension of Cooperman’s forfeited investigative duties. Anna Abraham, Cooperman’s on-and-off again girlfriend, is one such aid. Anna is an English professor at the University in Toronto and Cooperman enlists her help to complete much of the traditional detective legwork of

sweeping the crime scene and questioning witnesses. Even though Cooperman experiences moments of cognitive lucidity and can bring the elements of the crime into mind long enough to ask himself critical questions, these moments are short-lived and never last long enough for him to reproduce when engaging directly with an eyewitness. On top of the cognitive barriers, Cooperman is also confined to the hospital where he remains—except for one brief, overwhelming adventure to a nearby steakhouse—for the entirety of the narrative. Anna works as an extension not only of Cooperman’s memory, but his physical body by moving out into the corporeal realm of the crime and bringing useful information back to Cooperman. It is also interesting to note that as an English professor, Anna is perceived as uniquely qualified to observe, interpret, and relay precise information. Anna is a keen observer and an expert analytical thinker, and the basic skills required for her profession equip her with many of the abilities of a classic detective figure. In comparison with the representations of the police force, Anna is portrayed as a more suitable fit for the role of investigator, and as an ideal extension of and supplement to Cooperman’s lost physical and cognitive abilities. Alongside Anna, another professor—Boolie—provides character evaluations of the various members of the Biochemistry department at Simcoe College. Boolie is not only a colleague of the key players in the criminal mystery, but a close friend of the missing professor, Steven Mapesbury. Boolie, therefore, operates both as a physical extension of Cooperman’s person as well as an important cognitive extension of Cooperman’s mind by helping to retrace and piece together the interpersonal relationships between the individuals involved in the case. Unlike the police officers and Anna who gather and relay physical clues, Boolie delivers departmental gossip which turns out to be crucial in the solution of the mystery.

Lastly, beyond the reach of the criminal mystery, Cooperman receives helpful external memory aids regarding his physical and cognitive condition in the form of nurse McKay who regularly updates him on his medical progress, and repeatedly reminds him of knowledge that he has forgotten or misplaced. Because the criminal and the cognitive mysteries are intimately linked in this narrative, the aids from both domains supplement and complement one another in ways that move both mysteries closer to resolution. If Cooperman can work with his medical memory aids to understand when, why, and how his memory fails, he can pinpoint his strengths and weaknesses and enlist others to act as memory aids to accomplish the tasks of the criminal mystery. When Cooperman is unable to leave the hospital and physically gather clues, he asks Anna for help. When he is unable to remember and cognitively construct a web of relational contexts, he enlists Boolie's aid. When he is simply unable to remember, he turns to nurse McKay. All these individuals operate as external memory aids that Cooperman uses as coping mechanisms. Cooperman's memory cannot properly encode, store, or recall information so he must rely on the skills, processes, and analysis of others to help him retain his role as the detective figure. Cooperman's outsourcing of his memory serves as a constant reminder that his memory is not functioning properly, forcing the reader into a repeated cycle of forgetfulness that is disruptive and frustrating; and while readers might not initially recognize it, they are also being drawn into the role of external memory aid on Cooperman's behalf.

One of the most significant memory aids Cooperman uses throughout the novel is his memory book. Early on Cooperman tries coping with his memory loss by jotting down notes to himself on scrap pieces of paper he finds in his hospital room. Cooperman admits, "my inventiveness impressed me, even when the *aide-mémoire* took me three minutes to decipher" (28). Cooperman's alexia sine agraphia makes these physical instantiations of memory difficult

and time-consuming to translate, but in writing down the things he cannot safely store in his memory he restores some sense of control over his life. Nurse McKay notices Cooperman's efforts and during one of her regular visits she gifts him with a memory book, explaining how the notebook will be a more efficient way of keeping track of all his appointments, thoughts, and ideas. McKay tells Cooperman, "Let it become your memory. Let it help you" (60). This moment is significant for many reasons, the first being that this exchange is the one for which the novel is named. This signals to readers how important McKay's gift are to Cooperman as well as the paramount role the notebook will play in the narrative that lies ahead. For instance, up to this point Cooperman's narration has been full of memory mishaps and repeated questions but once he obtains the memory book this pattern starts to diminish. This is partly because rather than having to rely on his own mind to recognize the memory distortions and cognitive misdirection, his memory book can offer helpful information and course-correct missteps. The graduation from scraps of unordered, easily misplaced scraps of paper to the memory book also signals a cognitive transition from a broken, distorted memory to one that is supplemented by more reliable intel provided straight for the pages of his notebook. The introduction of the memory book gestures to a cognitive transition that not only improves the narrative flow by correcting memory-related dissonance and repetitions, but it impacts Cooperman's perspective and gives him a more positive outlook on his situation by restoring a sense of control. For example, before the introduction of the memory book Cooperman expresses his dissatisfaction with his altered memory through a series of negative metaphors, comparing it to a "smashed dish," "echoes," and "Jell-O" (11). After receiving the memory book, however, Cooperman's perspective shifts and he gains confidence enough to say, "I had my Memory Book beside me; I felt secure" (70). The memory book plays such an integral role in the narrative that even amid the *dénouement* moment

Cooperman admits, “Without my Memory Book with its notes, and lists of names, and even diagrams, I’d have been dead and buried. It gave me the courage to stand there, spouting” (211). Despite his own memory being ravaged by amnesia, Cooperman finds solace in the stability that his external memory aid provides and the avenue it creates for preserving and organizing important information Cooperman gathers about both the criminal and the cognitive mysteries unfolding throughout the novel. All the clues and evidence gathered by Sykes and Boyd, Anna, Boolie, and McKay amount to nothing unless Cooperman can somehow hold onto and recall them at the appropriate time; his memory book allows him to do just that.

Cooperman’s memory book plays a crucial role in the solution of the criminal mystery, but its usefulness does not end there; the memory book exists as an aid in working out the more complicated mystery of memory function. The novel does not end with the *dénouement* moment and the solution of the crime but instead continues for an additional two chapters that relay Cooperman’s release from the rehabilitation hospital and his ongoing struggle with reading and memory. The final chapters jump ahead in time where Cooperman admits to still carrying a memory book, although “it had now shrunk to pocket-notebook size” (231). Unlike the crime, Cooperman’s memory issues are not fully resolved. He mentions that he “still sometimes mistook grapefruits for oranges,” in the grocery store and that he continues to rely on useful external memory aids like his memory book, Anna, and a couple of Grantham-based social workers to function in real life. Cooperman’s memory has improved throughout the course of the novel, but in referencing his prolonged use of the external memory aids he highlights his continued cognitive battle with memory encoding, storage, and recall. This is an important part of the novel because rather than concluding the narrative at the end of the case and leaving readers to wonder about Cooperman’s health condition and memory loss, Engel provides a

glimpse into the very real experience of life after amnesia; one that is still full of distortions, failures, and daily red herrings.

In its presentation of various memory aids, *Memory Book* enters contemporary conversations regarding extended mind and theories of cognitive extension. In their foundational article, “The Extended Mind,” Andy Clark and David Calmers present a theory of cognition that reaches beyond the human mind/body and into the surrounding environment. They argue that “Cognitive processes ain’t (all) in the head!” because when “part of the world functions as a process which, *were it done in the head*, we would have no hesitation in recognizing as part of the cognitive process, then that part of the world *is* (so we claim) part of the cognitive process” (8). Clark and Chalmers’ theory suggests that assistive tools and technologies operate in the same manner as cognition and help achieve the same goals, thus these tools should be considered extensions of the human mind. While computers and other forms of artificial intelligence are the focus of their article, these authors do present traditional technologies like writing as another example of extension. They also present the case of Otto, a patient with Alzheimer’s disease, who utilizes a notebook to help recall useful information. Otto’s reliance on the notebook to complete cognitive functions related to memory is considered as assistive technology and an external extension of memory. Within this context, Cooperman’s use of the memory book throughout the narrative acts in the same manner. In highlighting the ways that Cooperman relies on the memory book as an assistive technology, Engel is complicating traditional views of memory as a purely neurological function and considering the ways that writing and other tools can be analyzed as cognitive processes.

While Clark and Chalmers’ extended mind broadens the approaches to studying memory, their focus is mainly on assistive technologies as environmental extensions of cognition, leaving

little room for social extensions among people. Disability studies, however, provides an avenue for thinking about these relationships through the lens of interdependence. In her lecture on “Access Intimacy, Interdependence, and Disability Justice” Mia Mingus argues that “Interdependence moves us away from the myth of independence, and towards relationships where we are all valued and have things to offer. It moves us away from knowing disability only through ‘dependence,’ which paints disabled bodies as being a burden to others, at the mercy of able-bodied people’s benevolence.” If read from this perspective, Cooperman’s interactions with officers Boyd and Sykes, Anna, Boolie, and other characters throughout the narrative can be seen both as an extension of his memory and cognition through the interdependence model. With officers Boyd and Sykes, for example, Cooperman relies on them to provide useful background on the crime and for updates of the progress of the investigation, but he also gives them important information during the denouement moment that leads to an arrest in the case. The people who act as external memory aids throughout the novel can be read as an extended network of Cooperman’s mind and memory, allowing for additional sources of analysis and a richer investigation of the concept of memory. In this way, by incorporating memory aids into his novel *Engel* engages in larger conversations about what memory and cognition entails and how it can be studied.

CONCLUSION

This novel is about much more than a criminal mystery. This much is obvious by the author’s refusal to end the novel with the solution of the crime. *Engel* instead leaves his readers with a lingering sense of dissatisfaction with a mystery left unsolved—the mystery of memory. The novel ends with Cooperman attending the wedding of one of the key eyewitnesses in the case, and because the circle of suspects was so insular, Cooperman finds himself in the company of

the people he spent the last several weeks investigating and intimately detailing in his memory book. At one point during the wedding reception Cooperman reminisces to himself, “I thought of what it would be like to meet the people whose lives had passed so close to mine. It would be interesting to close the circle on these last few months. There might be some chord struck that would somehow resolve all the discordant echoes running around in my head,” but he quickly gives up on this notion and in the same thought declares, “Weddings are all about our best hopes for the future” (236). This moment of personal reflection succinctly narrates the reality of his current cognitive situation that is full of “discordant echoes” and unclosed circles alongside his “best hopes for the future.” Cooperman acknowledges that while one mystery has been solved, another mystery—that of the human mind and memory—remains very much at-large. This is a mystery still in progress; one that Cooperman is yet to solve. A mystery that very well could take the rest of his life to unravel but that he has hopes in achieving through a series of coping mechanisms. In placing memory at the center of this text, pushing back against simplistic views of memory and cognition to present more heterogeneous ones, and leaving memory as the mystery that is not solved by the novel’s conclusion, Howard Engel suggests to readers the complexity of memory. Memory cannot be easily understood, categorized, or regained like some crime fiction novels might lead readers to believe. Memory takes a latticework of crisscrossed aids to unravel, and Engel proposes that literature—more specifically crime fiction—provides a perfect environment for that ongoing investigation.

Crime fiction is no stranger when it comes to using memory as a plot device. Howard Engel’s *Memory Book* takes a unique approach to incorporating memory, however, by instituting three narratological tasks that bring the concept into focus in new and exciting ways. The first task places memory at the center of the text so that everything revolves around its

conceptualization. In doing this, memory evolves from being a simple device in the narrative to becoming a larger idea that is probed, interrogated, and questioned from various characters and perspectives like any other eyewitness or clue in a traditional crime fiction plot. The novel fixes memory at its center through the intentional signaling of its paratext, the crafting of its plot, the disability of its detective, and the way in which the mysteries of the human mind are elevated so that they supplant the narrative's central criminal mystery. Each of these narratological decisions refocuses the text, imploring readers to question how cognitive function and memory are examined and explored beyond the realm of the hard sciences.

When a detective experiences complete amnesia, like Cooperman does, memory becomes both an obstacle and a new reality for readers; one that is both unfamiliar and uncomfortable and must be confronted at every turn. When the detective faces amnesia, readers similarly experience this loss and, as a result, take on a heightened interest in memory's conceptualization and recovery. What I have tried to show in this chapter is that memory operates as much more than a plot device in *Memory Book*. Memory is intimately tied both to the detective's ability to solve the crime and the crime itself. The characters and, by extension the readers, must learn how memory functions to harness its remaining strengths, avoid its weaknesses, and solve the crime. Memory is also not confined to the pages of this book but extends out into the life of its author. The context provided by the novel's paratext, and Engel's own life demonstrate the importance of recognizing the authorial context of *Memory Book* and the authenticity this adds to the story. Memory is firmly rooted at the center of this novel and is the bedrock from which everything else grows. With memory at its center, Engel's novel lends itself to a deeper probing of how memory operates in this text as a concept, and the role that literature plays in that process. *Memory Book* is a work of superfiction that emphasizes the elaborate nature of human memory

while simultaneously lighting the way for crime fiction's legitimate investment in investigating that cognitive process.

CHAPTER 2: LITERARY INTERCESSION AND INTERVENTION

The first narratological task Howard Engel accomplishes in his novel is rooting memory at the center of his text, complicating it through a rich network of paratextual elements, characters, settings, and memory aids. In doing so, Engel distinguishes *Memory Book* from other crime fiction narratives while simultaneously pushing back against overly simplistic conceptions of memory. The second task considers the role of literature in the study of the human brain and cognition. The cognitive revolution of the 1950s ushered in new perspectives and methodologies to the study of the human mind. Disciplines such as cognitive science, cognitive psychology, and cognitive anthropology emerged and co-mingled with the fields of neurobiology and philosophy to take on the mysteries of cognition, but literature and the humanities has been either ignored or commonly dismissed from this area of study. In his book, *Reading Minds*, Mark Turner argues for literature's place in the cognitive revolution, writing, "The purpose of this book is to propose a reframing of the study of English so that it comes to be seen as inseparable from the discovery of the mind, participating and even leading the way in that discovery" (vii). Other scholars such as Patrick Colm Hogan view Turner's claim as too idealistic. Hogan articulates his skepticism when he writes, "I doubt that it is either possible or desirable for literary critics to be the dominant figures in an area that encompasses such a wide range of technical scientific fields" (10). While Hogan is not against incorporating literature into the study of the mind, his hesitation lies more in seeing literary criticism at the forefront of cognitive studies. Hogan's skepticism is rooted in a long, ongoing tradition of power imbalance between the sciences and the humanities, and Hogan believes that without the proper scientific knowledge and application, literature could never be the dominant force in areas of human cognition. Despite his hesitancy, Hogan does

suggest that “If you have a theory of the human mind that does not explain the arts, you have a very poor theory of the human mind,” and that “cognitive science cannot afford to ignore literature and the arts. If cognitive science fails to address this crucial part of our everyday lives, then cognitive science will be left on the dustheap of history” (11). Turner and Hogan both imagine literature as an important element in the study of the human mind and cognition, but their varying degrees of buy-in touch on the varied and multiple perspectives on the prominence and contribution of the humanities, as well as the ongoing interplay between literature and cognitive science. Turner imagines literature at the heart of human cognition, while Hogan can only imagine literature being considered within the context of enriching cognitive science.

In this chapter I will discuss how *Memory Book* navigates the complex and often imbalanced power dynamics between the literary and the scientific. I argue that the novel operates in some ways as a literary intercessor to translate popular scientific theories about memory and cognition to its readers. This intercessory act involves depicting unique instances of memory and highlighting neurospecific methodologies and theories enacted by medical specialists throughout the story. In doing so, part of this chapter is dedicated to uncovering the ways that literature both disseminates and transmits cognitive science to the layperson while acknowledging the imbalance power dynamics that are constantly at play between the scientific, medical, and literary. Furthermore, in exploring how literature intercedes on behalf of the sciences, this chapter also addresses literary interventions in the investigation of the human mind by exposing science’s limitations and shortcomings and offering a more holistic approach to memory and cognition by dismantling the hierarchical relationships between the disciplines. Thus, the second task works to relay scientific perspectives while simultaneously pushing back against those notions to test and invigorate alternative ways of uncovering the mysteries of the

mind. This chapter therefore explores how *Memory Book* not only intercedes on behalf of the cognitive sciences, but also intervenes in the field of memory studies, ultimately clearing the way for a blended approach that will be discussed in the final chapter.

THE PARATEXT

In the first chapter I discussed how the novel's paratext crafts a narrative that is built around the concept of memory. This is accomplished by repeatedly gesturing to the intimate connection between the author's personal struggles with cognition and memory, and the story that Engel constructs throughout his narrative. Every aspect of the paratext, from the front cover to the dust jacket, take up this mantle and reaffirm that conceptions of memory are critical to understanding and engaging with Engel's novel. While one goal of *Memory Book*'s paratext is to start positioning memory at the text's center to complicate it, the paratextual elements also bring together the worlds of cognitive science and literary fiction in interesting ways. Gérard Genette acknowledges that the very concept of "paratext" entails a bringing together or disparate items when he writes, "The paratext, then, is empirically made up of a heterogeneous group of practices and discourses of all kinds and dating from all periods...in the name of a common interest, or a convergence of effects, that seems to be more important than their diversity of aspects" (2). The "diversity of aspects" that Genette refers to includes items such as the title, table of context, and the name of the author, but I argue that it is not simply the elements themselves, but the information they convey that helps construct a coherent transdisciplinary narrative for the reader. The information that the paratextual elements presents to readers brings together the commonly disparate worlds and perspectives of literature and science, placing them in close physical proximity to each other and urging readers to consider the epistemic possibilities and consequences of this positionality. The paratext encourages readers to think

deeply about how and why *Memory Book* constructs a space for exploring the interactions between the hard sciences and literature.

The Front Cover. In *Memory Book*, setting up a textual environment that is ripe for investigating the intersections between neuroscience and literature starts once again with the novel's front cover. As we saw in the previous chapter, the paratext carries much of the burden of establishing the relationship between Howard Engel and his protagonist through visual and textual clues spread across the front cover and dust jacket. For example, the front cover places Howard Engel's name within proximity to Benny Cooperman's, visually symbolizing the intimate connection between author and protagonist (see figure 5).

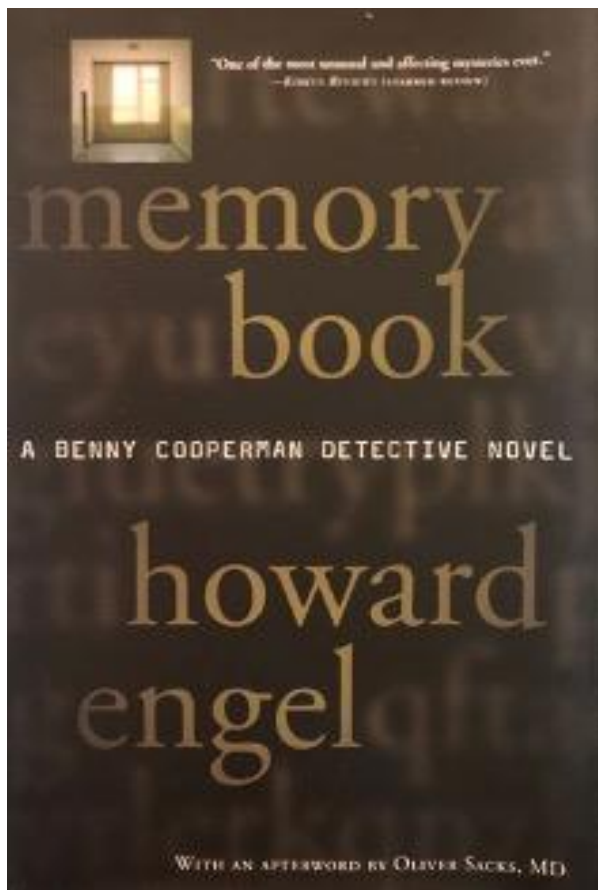
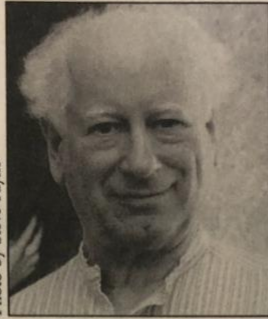


Figure 5: *Memory Book* front cover, hardcover 2006 version.

Looking to the novel's front cover also uncovers details relating to the scientific and literary approaches within. For example, the white text that says, "A Benny Cooperman Detective Novel" in the middle of the cover can be linked to another bit of white text at the bottom which announces, "...An Afterword by Oliver Sacks, MD." Even if readers are unaware of who Oliver Sacks is, the title "MD" following his name indicates his discipline and training. If the two statements are taken in tandem, readers can infer that the narrative laid out in the novel is something of interest to a medical doctor. The novel's front cover is visually setting the scene for an interaction between the hard sciences and literature; and this is further emphasized through the small image that I interpreted in chapter 1 as depicting a hospital corridor. The initial interpretation of this image considered how it visually primed readers to think about the novel's handling of the topic of memory, but it can also be read as a clue to the novel's setting. The image suggests that the narrative will interact with this medical setting in some capacity and therefore engage with specific people and environments in a meaningful way. While the white text is tracing a relationship between the story and the sciences, the image takes that connection a step further by physically placing the novel in a space traditionally dominated by scientific methodology and epistemology. These two elements create a visible link between the two worlds while simultaneously preparing readers for the interactions that will take place throughout the narrative.

The Author Biographies. The front cover does a nice job of visually easing readers into a collision between the hard sciences and literature, but other paratextual elements are more conspicuous about initiating and buttressing this exchange. The first element readers encounter upon opening the book is the authors' biography page that includes a short sketch of each author and some additional praise for the novel in the form of a few short reviews (see figure 6).

Photo by Steve Payne



HOWARD ENGEL won the 1990 Harbourfront Festival Prize for Canadian Literature and the 1984 Arthur Ellis Award for Crime Fiction. In 2005 he received the prestigious Matt Cohen Award in Celebration of a Writing Life. *Memory Book* is his first novel since he suffered a stroke in 2000, which left him with *alexia sine agraphia*.

OLIVER SACKS, MD, is a professor of clinical neurology at Albert Einstein College of Medicine. He is the author of many books, including *Awakenings* and *A Leg to Stand On*.

PRAISE FOR *MEMORY BOOK*

"The past twenty years have seen plenty of detectives with disabilities. Engel, one of the few writers to share the same challenges as his sleuth, has produced one of the most unusual and affecting mysteries ever."

—*Kirkus Reviews* (starred review)

"A slick mystery, but also a terrific recovery tale."

—*Toronto Globe and Mail*

"Engel is a born writer, a natural stylist. . . . [he] can bring a character to life in a few lines."

—Ruth Rendell

Figure 6: *Memory Book* authors' biographies.

In many novels the author's bio is found at the end of the book, however, in *Memory Book* it is the first printed page of the text. Placing the bio page at the beginning of the text causes readers to pause and intentionally question why this editorial decision was made and how it impacts their reading of and engagement with the narrative. Readers find out who their authors are before they engage with the narrative and this undoubtedly colors the way they interact with the story and the

experiences the protagonist endures. Just like the front cover works to set the scene for the reader, the intentional shift in the location of the bio page symbolizes a larger epistemological shift that takes place in the novel by situating the sciences and crime fiction within the same fictional world.

In addition to the intentional change in the physical location of the authors' biographies, the sketches themselves lend further insight into the larger real-world context of the story while continuing to lay the groundwork for the collision of literature and the hard sciences. The story of Benny Cooperman is enveloped in Engel's own story and the author bios prime the readers for this realization before they even enter Benny Cooperman's world. Alongside a list of his literary awards and achievements, Engel's bio includes a single sentence that announces that *Memory Book* is the first novel he has written since he "suffered a stroke" and was "left with *alexia sine agraphia*." Even though the mention of his stroke is brief and he does not define or explain his condition, readers are left intrigued and wondering what perspective Engel provides on cognition and impaired memory function. The other paratextual clues preceding the bio page hint at Engel's real-life situation by suggesting that Engel wrote the novel while not being able to read, but this is the first place that directly announces his condition in medical terms. Listing his literary achievements alongside his medical condition and the fact that *Memory Book* is his first book after his stroke suggests that this novel takes on an autobiographical tone and includes Engel's own perspective on memory and cognition. Readers get a sense from Engel's bio that his perspective will be presented through a blend of literary and scientific knowledge gleaned through personal experience. Hence, before the novel begins readers know that this story will be unique in its handling of its mystery as well as its approach to memory because the author writes not from a set of compiled research notes, but from personal experience.

While Engel's bio uses medical jargon to initiate a move toward the sciences, Oliver Sacks' bio solidifies and specifies this transition into the scientific realm. When readers first see Sacks' name listed on the front cover, they can infer from his credentials that he is in the medical field, however, his bio specifies that he is a "professor of clinical neurology at Albert Einstein College of Medicine." Readers learn from this statement that this text is engaging with the sciences in general, but neuroscience in particular. The fact that Sacks is a professor, coupled with the mention of two of his most popular books—*Awakenings* and *A Leg to Stand On*—readers can infer that Sacks is an active member of the scientific community that is committed not only to ongoing research concerning cognition, but that he is also a part of the academic process of knowledge dissemination through both teaching and writing. This is important because it demonstrates Sacks' commitment to an ever-evolving conception of the human mind and memory as well as to his role in sharing that knowledge with others. The mention of Sacks' 1973 memoir, *Awakenings*, is also interesting because the book was adapted to a 1990 feature film directed by Penny Marshall and starring Robin Williams and Robert De Niro. In the film Robin Williams portrays Dr. Malcolm Sayer (Oliver Sacks) who discovers the positive effects of the drug L-Dopa when administered to patients that have been comatose for decades following the 1917-1928 encephalitis lethargica epidemic. In mentioning this connection, I draw attention to Sacks' widespread fame in and outside of the scientific community, as well as the fact that his work has been used in the past as a springboard for popular works of creative nonfiction. This sets a precedent for *Memory Book* and in placing Sacks' bio at the forefront of the novel it calls attention to a longer history of blending the worlds of science and creative fiction to disseminate cognitive theories to the layperson. Within this context, *Memory Book* enters the neuroscientific environment with the intent of translating and then disseminating popular neurological

conceptions of the mind and memory to a non-scientific community using literary fiction. Engel's bio represents a humanistic perspective while Sack's presents a neuroscientific one; and taken in tandem, these sketches are representative of the humanistic and scientific sides of the larger cognitive coin. Although author bios are a discreet, often overlooked aspect of a text, the fact that Engel mentions his stroke and then chooses a neuroscientist to write the Afterword to his novel shows how the text is working externally to the narrative to establish a sense of intercession, collaboration, and cooperation between the disciplines.

The Afterword. The author bios institute a cooperative model for confronting cognition, but another crucial aspect of the novel's paratext is the Afterword and what it does to disseminate popular scientific approaches and theories about memory and cognition as a means of encouraging intercession and interdisciplinarity. One way Oliver Sacks' Afterword accomplishes this is by explaining the cognitive impact of Engel's stroke and the momentous achievement of his composition of *Memory Book*. Popular news outlets like *The New Yorker* or *The Globe and Mail* picked up Engel's story following the publication of the novel, however, what makes the Afterword so interesting is how Sacks tells the story from a neuroscientific perspective. Sacks relates Engel's journey using scientific inquiry, medical jargon, and a repertoire of case studies; in many ways constructing a medical experiment through the construction of his Afterword. Sacks' rendering is markedly different from the popular news portrayals of Engel's condition because it approaches the topics of memory and cognition from an objective, scientifically distanced perspective. The Afterword translates the cognitive hurdles Engel, and others like him, must overcome to either regain their abilities or find creative solutions around their deficits. The Afterword becomes a paratextual site of intercession and knowledge dissemination through its

intentional structure and its translation of scientific jargon, facilitating a careful, intentional collision of the worlds of science and literary fiction in the process.

The structure of Sacks' Afterword mirrors the classic scientific method because it starts with a larger question or research problem. Sacks starts with this problem stating, "I found myself thinking about the problem of alexia" (238). In addition to narrowing his focus on an area or topic of study, Sacks adds depth to the issue of alexia by providing a brief history of science's enduring fascination with alexia to demonstrate two key points: First, that the mysteries of alexia are still unknown; and second, that this long history indicates a worthy, relevant field of study. Thus, readers learn early in the Afterword what cognitive issues are being addressed and how and why they are important. After establishing the larger problem, Sacks presents a hypothesis aimed at discovering how individuals experiencing alexia not only cope with their condition but use creativity to bypass their cognitive deficits and achieve success. I highlight the word "creativity" here because Sacks focuses his inquiry specifically on authors, artists, and musicians to highlight the role of human ingenuity in cognitive recovery. While Engel's case is at the center of Sacks' inquiry, he regularly references other case studies to prove this hypothesis. For example, throughout the Afterword he makes regular mention of one of his own patients, the "alexia pianist" who when she lost her ability to read music "developed an extraordinary ability to listen to orchestral and choral words and arrange them for piano entirely in her mind, where before she would have needed manuscript paper and pencil to do this" (246). Sacks also points to a case belonging to neurologist Kurt Goldstein where the patient regained their reading abilities following alexia by using his "eyes to 'palpate' the shapes of letters" to create a "visual Braille" (245). In the ten pages which comprise the Afterword Sacks presents six different case studies of patients that experienced alexia, yet were able to develop unique mechanisms and techniques for

copied with their cognitive disorders and continue to effectively function in their careers.¹ In each case Sacks points out the scientific specifics of the disorder and how the brain is impacted, but he also highlights how each individual is able to move beyond the limitations of alexia to either rehabilitate their deficits completely, or provide alternative strategies for success. As in the final stages of the scientific method, Sacks concludes his Afterword by reiterating his hypothesis and summing up his findings. He comes to the following conclusion:

. . . there seem to be many ways by which a person with alexia—especially a resourceful, verbal, highly motivated person like a writer—can get around the deficit, find new ways of doing things now that the old ways are unavailable. . . . It is a struggle that calls for heroic determination and courage, as well as great resourcefulness, patience, and, not least, humour—simply to survive, let alone to produce. (247)

Even though much of Sacks' tone, verbiage, and structure point to traditional scientific methodologies as the way to understand cognition, his conclusion takes a humanistic turn. He attributes an individual's ability to overcome cognitive impairments not to science or medicine but to ingenuity, verbal proficiency, and human grit—characteristics Sacks specifically attributes to a writer. Even though he sees the sciences as a starting point for understanding the human mind, Sacks points to humanistic elements such as "determination," "courage," "resourcefulness," "patience," and "humour" as valuable in paving the way forward for understanding cognition. In this way, the structure of the Afterword supports the sciences as a natural home for questions of cognition but suggests that humanistic disciplines such as literature also make valuable contributions. The Afterword takes the shape of a traditional science

¹ The six case studies Sacks presents in his Afterword include: the "case of the colorblind painter," also known as "Mr. I" (239); Dr. Kurt Goldstein's unnamed patient who develops a form of visual Braille (245); the "alexia pianist," also known as "Anna H." (238, 245, 246); an unnamed, "eminent publisher" with a degenerative brain disease that leads to "focal atrophy" (245); Howard Engel; German novelist, Gert Hofmann (246); and H.L. Mencken as an inconclusive final addition (246).

experiment, but one that ultimately leads readers to see a productive collision between the sciences and literature.

In addition to the Afterword's structural underpinnings which help reinforce scientific approaches to cognition and the human mind, Sacks' use of medical terminology and scientific jargon demonstrate an attempt to both disseminate and translate scientific knowledge about the brain and its function. The Afterword is only ten pages long, however, in that span Sacks references over thirty-eight scientific or medical-related terms and phrases (see table 1).

Scientific Terminology/Jargon	Location in <i>Memory Book</i> (pages)
Alexia/Alexic/Pure Alexia	238, 239, 240, 240, 240, 241, 241, 242, 243, 245, 245, 245, 246, 246, 246, 246, 246, 247
Alexia sine agraphia	240
Aphasia	240
Aphasic stroke	246
Atrophy	245
Auditory and conceptual memory	247
Auditory mode of perception	241
Autism	248
Brain	238, 239, 240, 247
Brain imaging	247
"Chunking"	242
Compensatory heightenings	246
Congenitally blind	246
Deficit	247
Degeneration	245

Table 1: Medical or scientific terminology used throughout Oliver Sacks' Afterword. Page numbers that are indicated more than once for a term represent multiple mentions of that term/phrase on a particular page.

Table 1 (cont'd)

Deteriorating brain disease	245
Disconnection/Disconnection syndrome	240, 240
Dissociation	240
Field defects	241
Focal atrophy	245
Hospital	242, 243
Internal imagery	242
Medical	248
Memory	242, 245
Neurological	243, 243, 248
Neurologist	245
Occipital cortex	238, 239
“Posterior visual parts of the brain”	245
Stroke	239, 239, 240, 244, 246, 246, 246
Tourette’s syndrome	248
Visual alexia	245
Visual Braille	245
Visual cortex	240
Visual imagery	242
Quadrantanopia	240
Quarter of the visual field	240

While some of these terms are mentioned only once, several terms—like “alexia,” “neurological,” “brain,” and “stroke”—are repeated. Most of the terminology is not only generally related to the scientific or medical fields, but directly references and highlights cognition. This is done by citing specific regions of the brain like the “occipital cortex” or

“visual cortex;” by referencing cognitive functions such as “memory;” and especially in pointing to various cognitive malfunctions such as “alexia sine agraphia,” “disconnection syndrome,” or “Quadrantanopia.” Sacks places readers within the cognitive realm of the sciences while also laying bare the impact of cognitive disruptions brought on by stroke, cognitive degeneration, or deteriorating brain disease. Sacks’ deliberate and consistent use of scientific jargon is one way *Memory Book*’s paratext intercedes for the sciences by introducing and disseminating cognitive jargon to readers. The Afterword acts as the scientific foundation for the entire novel by providing a mini science lesson that concisely explains what the novel’s protagonist, Benny Cooperman—and by extension Howard Engel—experience cognitively. Although reading the Afterword is not necessary to fully understand or enjoy *Memory Book*, it does provide useful context with real-word application.

It is also important to note that for every term or example of scientific/medical jargon Sacks uses, he also provides a definition or explanation of how that term is defined in layman’s terms. In this case, dissemination is nicely paired with clear, concise, and easily understood translation. While this does occur in some places throughout the actual narrative of the novel, there are many places where the scientifically savvy characters (i.e., doctors, nurses, therapists) present the jargon without taking the time to translate. Sacks takes on this burden for readers and, in doing so, intercedes and engages with Engel’s narrative in both interesting and useful ways. Thus, in its use of scientific and medical terminology and jargon the Afterword establishes a sense of literary intervention by introducing readers to the scientific realm of cognitive science while also disseminating and translating that knowledge.

All the elements of *Memory Book*’s paratext I have mentioned so far demonstrate how literature intercedes on behalf of the hard sciences; but the novel’s paratextual elements also

suggest that literature makes critical interventions in the study of memory and cognition. The paratext attains this by not only revealing and translating the sciences but crafting an environment that encourages transdisciplinarity and opening new avenues for investigation. The front cover and authors' biographies place the hard sciences and literature in close visual proximity to one another to set aside their disparities and encourage readers to ruminate instead on their similarities and reciprocal nature. The paratext in this novel repeatedly makes this move to situate itself on the borderlands of several disciplines rather than suggest the superiority of one. The paratext collides the two worlds of science and literature to both prime the readers for the novel's content and to bear witness to the advantages of conceptualizing memory and the human mind through a blended approach. The Afterword is crucial to this point because unlike the other paratextual elements which suggest a closeness between the disciplines, the Afterword overtly advocates for blending. Amidst Sacks' scientific methodology and use of medical jargon is the overarching sense that what enables the patients mentioned in the various case studies to overcome their cognitive deficits is their ability to harness their creative minds in ways that science cannot harness or translate. It points to a shortcoming of the sciences and then suggests how literature and the humanities might fill that hole. Sacks himself suggests that a "resourceful, verbal, highly motivated person like a writer" is best equipped to "get around the deficit, [and] find new ways of doing things" (247). Although Sacks' Afterword starts with a research problem that eventually launches into a scientific exposition, Engel's personal story is still at the heart of this final element of the text. Despite being extraneous from the narrative itself, the Afterword reiterates the blended approach that will be presented throughout the narrative and infuses it with real-world ethos. Sacks does not claim any scientific breakthroughs in his Afterword but instead writes that it is Engel's experience and resulting narrative about his time in the rehabilitation

hospital that “proved to be a neurological revelation” (243). Engel’s novel breathes life into the cognitive issues of memory and alexia, and Sacks’ Afterword gives credence to his literary approach and the path forward it blazes. The Afterword is the final word, and as such, it leaves readers with the satisfaction and scientific stamp of approval for the blended approach that Engel constructs in his narrative.

THE NOVEL

Memory Book’s narrative, much like its paratext, both intercedes for and intervenes in the sciences with regards to memory and cognition. The introduction to my project highlighted the trend in amnesia-based crime fiction that uses memory as a simple plot device rather than a central aspect of the narrative. This means that in most texts memory issues appear as occasional memory gaps or trouble accessing and recovering specific moments surrounding the crime. Typical crime fiction handles memory loss as a rare, somewhat easily overcome roadblock in the criminal mystery, because characters are usually able to conquer their memory issues through abstinence, hypnosis, or re-entering a space of previous trauma to provoke recollection.² What is important to note in how memory is traditionally handled in the genre is that memory loss is temporary, eventually accessible, and purely a means to solving the criminal mystery. *Memory Book* is different. As the first chapter of this dissertation clearly outlines, memory extends

² Popular crime fiction narratives that have addressed issues of memory recovery through these means include Paula Hawkins’, *The Girl on the Train*; Julian Symons’, *The Color of Murder*; and AJ Finn’s, *The Woman in the Window*. In Hawkins’ text the protagonist struggles with memory recall and accuracy because of alcoholism and is able to recover some memory through abstinence. In Symons’ novel the protagonist experiences memory gaps that he visits a psychiatrist to help recover. Lastly, Finn’s novel takes on multiple issues as the protagonist wrestles with memory recall amidst alcohol and narcotics abuse, trauma, and ongoing therapy. In this case, the protagonist practices therapeutic techniques and abstinence to regain lost memory.

beyond the use of a simple plot device in Engel's novel. Benny Cooperman's issues with memory are severe, present unique challenges and complications, and result in a deliciously complex problem that ultimately resists resolution. As such, this radical case of memory allows for multiple opportunities to discuss, probe, and conceptualize memory as a cognitive function. Using the narrative elements of pacing, setting, and characters Engel constructs a narrative that is both deeply literary and scientific. Engel brings these two disciplines within proximity of one another to show the ways in which crime fiction narratives of amnesia not only intercede on behalf of the sciences to translate and diffuse popular theories of memory to the public, but also intervene in the study of memory in unique and interesting ways to eventually produce a blended approach that will be further outlined and discussed in the final chapter.

Narrative Structure—Pacing. Readers of traditional crime fiction will quickly realize that *Memory Book* is structured differently than other mainstream narratives within the genre. One of the things that makes *Memory Book* unique is the pace that Engel establishes and maintains throughout the entirety of the novel. Typically, when a crime is committed or a crime scene is uncovered, the text launches into a fast-paced investigation full of plot twists and red-herrings. The genre's genesis in dime novels and pulp magazines, and its enduring use of the short story medium utilized by the greats such as Poe, Conan Doyle, and even Christie is indicative of this trend that includes flat characters and clipping investigative speeds.³ When it comes to crime

³ Mystery and crime fiction was highly popularized by dime novels and pulp magazines of the 19th century. These types of publications were impacted by postal regulations and reforms made throughout the 19th century. For example, in 1896 the postal deficit dramatically increased and in his report to President Cleveland Postmaster General William L. Wilson blamed publishers of paperback books and advertisements and their apparent abuse of the second-class mailing privileges and cheaper prices as the culprit. As postal regulations shifted and dime novels disappeared, publishers adapted to producing pulp magazines that highlighted shorter stories. In this sense, the genre's adoption and popularization of quick narrative pacing was produced out of

there is an inherent sense of urgency and an innate craving for expedient resolution in order to regain a sense—no matter how false—of safety and reestablished order. While crime fiction narratives certainly range in terms of overall length, most narratives still maintain a relatively quick pace. *Memory Book* is an exception. This is not to say that Engel's novel is boring or dull, but that Engel deliberately slows the novel's pace to make room for the exploration of memory as a cognitive function and to allow for the interplay between the sciences and literature in meaningful and productive ways.

The first indication of this slowed pacing comes at a familiar point in the novel—during Cooperman's initial conversation with nurse McKay. When Cooperman regains consciousness, he struggles to remember the extent of his injury and repeatedly asks McKay for an explanation. In one of her many explanations, she tells Cooperman that he has been hit on the head and then reports, "Head injuries are slow healing; slower than fractures, slower than sprains, slower than most surgery. You're going to have to learn patience" (7). In this moment McKay qualifies Cooperman's injury by pointing to its physical location—the head—and the extent of the damage by comparing the rate of healing to other injuries. McKay also tries to help Cooperman adjust his expectations for the future by mentioning that "head injuries are slow healing." She emphasizes this point by repeating the words "slow" and "slower" and by drawing a comparison between the speed of recovery from a range of injuries such as "fractures," "sprains" and "most surgery." Cooperman's nurse ends her explanation by telling him that he will have to "learn patience." The phrasing that McKay uses here is interesting because it denotes that this is something that is not innate or natural to Cooperman, but something that he must *learn*; and

necessity. For more on postal regulations and their impact on popular fiction see Wayne E. Fuller's, *Morality and the Mail in Nineteenth-Century America*.

while the nurse may not know that Cooperman is a private investigator, Engel uses this wording to show that patience is not a natural character trait in detective figures. This moment is not only an interchange between characters in the novel, but it represents a conversation between author and reader. Readers learn alongside the detective that they too need to adjust their expectations.

Addressing audience expectations regarding the pacing of the narrative is important because *Memory Book* is combating a longstanding tradition of rough-and-tumble detective figures whose readers expect to overcome all injuries by sheer grit. Even though the protagonist—and by extension, the reader—have been explicitly told that recovery is going to be slow, the trends established by the genre could still prove hopeful for Cooperman's speedy recovery. To dispel any lingering doubts, the protagonist himself steps:

I thought I could pick up the pieces of whatever investigation I was working on and start making up for lost time. Now I realize that before I could get back on the trail, I had to throw away still more time recovering. So, recognizing that I could see myself getting a little obsessive around the ears, I decided to ease off the desire for fast and dispassionate revenge on whoever had put me in the hospital. . . Chandler says that a detective has to do his job no matter what. . . I could see that logic working in books and in the movies, but in real life it's tougher. . . . There's no time for PIs in books or movies to lie about, recovering. The story has to move. To gallop! The fictional detective has an audience following his every move. He's never alone. He always has to do the right thing. . . If this was a movie, I'd crawl out of my hospital bed, shake my head under the shower, and tear off the bandages as I grabbed my clothes on the way back to the street. The camera wouldn't miss a thing. (42-43)

As Cooperman learns more about his cognitive condition and experiences an alarming amount of memory gaps and mishaps, he starts to question his ability to perform as an effective, fast-paced private investigator. This moment of reflection establishes a comparison between reality and fiction, highlighting the differences between how cognitive injury and trauma are handled in each situation. In doing so, this moment in the novel adjusts expectations for the pacing of the rest of the narrative while also highlighting that *Memory Book* is markedly different from other crime fiction narratives in its handling of the cognitive powers of memory. Readers will quickly

recognize this moment as one of expectation versus reality through its comparison of Cooperman's situation and popularized narratives. For example, in the first half of the passage Cooperman repeatedly uses the personal pronoun "I" to indicate the reality of his own situation and the need to adapt his personal expectations for how he must proceed. In the first two lines he comes to the realization that his medical condition requires more recovery than he initially thought. His shift in expectation is emphasized when he starts off saying, "I thought I could," but in the next sentence declares, "I now realize." The first sentence is what Cooperman expects he will be able to do regarding the investigation, whereas the second sentence demonstrates that his reality is something different altogether. Cooperman must come to terms with this new reality and that he has lost an incredible amount of time (six weeks) already. Now that he is conscious, he will need to "throw away still more time recovering," meaning that the start of the narrative is only the beginning of Cooperman's road to recovery. Cooperman resigns to this new reality when he declares, "I decided to ease off the desire for fast and dispassionate revenge," before launching into the comparison between his personal situation and the ones depicted in popularized crime narratives.

In the latter half of the passage Cooperman comments on the expectations and pacing of traditional tales of crime to further differentiate *Memory Book's* narrative structure and dealing of memory from other generic depictions. Cooperman shifts from using the personal pronoun "I" to the nondescript third-person pronoun "he" to describe the "fictional detective" depicted in books and movies. Cooperman even references a camera that "wouldn't miss a thing," to highlight the theatrical, staged manner of the pacing in these mediums that are meant to mirror fiction's continual need for action and instant gratification. Raymond Chandler, popular hardboiled author, is referenced as saying that a "detective has to do his job no matter what,"

reiterating the typical trope that no bodily injury or cognitive trauma is too great for the private investigator to overcome in the name of solving a mystery. In direct opposition to Cooperman's earlier statements about his reality and the need to recover, these fictional detectives are afforded "no time...to lie about, recovering," because the "story has to move," preferably at a "gallop!" The pacing never slows in these traditional crime narratives, but for Cooperman and his misfiring memory, this cannot be the case. In comparing reality and fiction in this passage, Engel comments on Cooperman's need to slow down the pace of the mystery and adjust to the realities of his cognitive condition. On the other hand, Engel also uses this passage to insert his own generic alterations to the formula of crime fiction to focus the text and its mystery around the concept of memory and cognition.

The previous chapter discussed the ways that *Memory Book* is structured to intentionally place memory at its center and elevate it to the central mystery. The deliberate slowing of the pace of this novel, brought on by Cooperman's brain injury and alexia sine graphia, allows for genuine reflection and analysis of the concept of memory to occur within the space of the narrative because it is not forced to stampede ahead in search of the solution of the crime. This is exhibited, for example, in moments where Cooperman sits down and attempts to read a novel title or a newspaper headline—struggles to piece it together slowly word-by-word—but finds that his alexia sine graphia is not improving and that he must move forward with intentional, but slow progress. The crime and Cooperman's memory are inextricably linked, hence taking the time to investigate and probe the boundaries of his own fragmented mind is a relevant, and necessary move. Slowing the pace and drawing attention to this maneuver by comparing it to other generic examples signals intentionality on Engel's part, but also a strategic move in

establishing *Memory Book* as an outlier. Engel wants readers to be very aware of this shift and to interrogate why and how it impacts the solution of its multilayered mysteries.

Environments of Intercession and Intervention—Setting. Extreme cases of memory like Cooperman's usually require immediate and oftentimes long-term medical care and intervention. The intercession of literature in the cognitive sciences starts with the novel's use of setting and locale. Setting plays an important role in crime fiction because it draws readers into the story and sets the scene for the crime, clues, and investigation. P.D James explains that setting is important in the genre because it is where "people live, move and have their being, and we [readers] need to breathe their air, see with their eyes, walk the paths they tread and inhabit the rooms the writer has furnished for them" (131). James envisions the narrative setting as a means of knitting together stories and their readers and infusing the plot with the intricacies of human experience. She takes this idea a step further, suggesting that "the setting exerts a unifying and dominant influence on both the characters and the plot" (131). Setting is therefore specially equipped to impact what characters experience, and how that experience plays out over the entirety of the narrative. Lastly, James writes that setting also functions to "add credibility to the story...which often deals with bizarre, dramatic and horrific events which need to be rooted in a place so tangible that the reader can enter it as he might a familiar room" (133). Much of *Memory Book* takes place almost entirely in familiar scientific settings and situations such as hospitals, laboratories, therapy sessions, and brain scans, to name a few. Intentionally placing the story in this physical environment and under the supervision of science-based characters couches the discussions of memory within a larger scientific discourse and illustrates that theories of memory and the human mind are commonly negotiated through the empirical processes governing scientific thought. By narrativizing these environments, the novel translates scientific

perspectives of the human mind and memory to readers in a way that is easy to understand.

Hence, making the unfamiliar, familiar through the hospital setting. As the following sections on setting will uncover, *Memory Book* utilizes many of the functions James outlines to draw readers into the cognitive space, familiarize the foreign and abstract, and narrate the ways in which the hospital setting impacts the novel's characters and the overall plot.

Memory Book takes place almost exclusively on the fifth floor of The Rose of Sharon Rehabilitation Hospital in Toronto. Within the first few pages of the novel readers learn from nurse McKay of Benny Cooperman's injury and that he has been either unconscious or unable to remember having woken up previously. Readers also learn early in the narrative that Cooperman has been in a hospital setting for quite some time when McKay announces, "You have been here for six weeks and you were at Mount Sinai [in the Brain Injuries unit] for two weeks before that" (5). Whether or not Cooperman remembers being in the hospital, his nurse assures him that he has been in this environment for a significant amount of time and that the purpose of his stay on the "fifth floor" with other patients who have experienced strokes or brain injuries is to make sure he works directly with "people who can help you get over the injury" and others who will help him "adjust" to his new reality (8). Engel intentionally highlights the amount of time that Cooperman has been in the hospital to draw attention to two things: first, treating brain injuries that result in memory loss are complicated and slow to heal (further reiterating the slowed narrative pace); and second, Cooperman's condition isolates him from the real world both mentally and physically for a considerable amount of time. In this way, the physical setting and the time in which Cooperman has spent in the hospital operate as a symbol for the scientific process that is oftentimes time-consuming, complex, and relies on an element of isolation from the real world to facilitate healing or medical progress.

While the general hospital setting and the passing of time establish the medical perspective in which this novel is situated, Cooperman's descriptions of his physical surroundings and the way that people interact while in this space symbolize the scientific perspectives on cognition and memory. For example, soon after Cooperman wakes, he starts paying close attention to his new surroundings and how they reflect the aims and methodologies of the scientific community:

It was a sunny room. I couldn't complain about that. The suspended white curtains diffused the light coming from the windows so that both beds in the room got an equal share. The curtains even gave the impression of a breeze, of summer outings and tent pitched above a trout stream. This impression was muted by the panel of electrical outlets and receptacles for jacks and hoses above the beds. There was a bathroom somewhere and cupboards. The door to the hall was always open. The corridor beyond was usually lively with sounds of rubbersoled shoes and the tires of wheelchairs and gurneys. (20)

Cooperman's description of his hospital room indicates that even though he is in a sterile environment—specifically designed to guard and protect patients from the outdoor elements—he attempts to enliven it by comparing it to the outdoors. He describes his room as “sunny” and with soft white curtains that “gave the impression of a breeze” and “summer outings and [a] tent pitched above a trout stream.” In his attempt to imbibe the setting with real-world familiarity, however, Cooperman's use and repetition of the word “impression” suggests fakery or artifice on the part of the hospital to appear as something it is not to put patients at ease. The passage starts off with a feeling of serenity and natural peace, but Cooperman suggests a moment later that his initial impression was “muted” by the opposing views of the “panel of electrical outlets and receptacles for jacks and hoses above the beds.” Even the sounds that he describes as “lively” are further qualified by the artificial “sounds of rubbersoled shoes,” and “tires of wheelchairs and gurneys.” This initial description serves as a rough transition into the environment of the scientific realm and while at first glance it does not appear too different from Cooperman's

everyday life, he quickly shifts to talking about the artificial nature evoked by machinery, plastic, and the sounds of illness and impairment. This description acts as one of translation for the readers, easing them into the setting of the narrative while simultaneously making them aware of its artifice. The medical setting established here demonstrates that while the scientific realm may be able to simulate reality, it is merely an imitation of the outside world because at its core, the scientific realm must embrace isolation as a key to its success. This environment is a safe place for Cooperman to heal and investigate his own cognition, but he also makes it very clear that this space is contrived and can only operate as a safe space for so long.

This initial description of his surroundings not only establishes a baseline for the setting of his new reality, but it also gestures toward the underlying viewpoints and methodologies that govern scientific epistemology. In observing the curtains, for example, he says that they “diffused the light coming from the windows,” giving a sense of separation or intentional isolation from the outside world and its unpredictable variables. Cooperman finishes his description of the hospital curtains by saying that they distributed the light so that each bed “got an equal share,” hinting at the concept of controlled variables as well as symbolizing the impartiality of the sciences no matter individual circumstances. Later in the passage he comments that the “door to the hallway was always open,” signaling a loss of personal privacy and foreshadowing the implications of his new reality where he must ““get used to us claiming bits and pieces of you,”” at any given time (59). Through his descriptions, Engel provides readers with a glimpse of the methodologies and priorities of scientific inquiry in a way that both intercedes on behalf of the sciences by disseminating these approaches to readers, but also depicts the cold, detached nature of this perspective on the human experience of memory loss and cognitive impairment. Cooperman’s experience with his surroundings introduces the

scientific disciplines into the mystery, but in doing so it also highlights its potential shortcomings and suggests that scientific inquiry can only capture certain aspects of the human mind and memory because it can only replicate feeble impressions of reality rather than the vibrancy of lived experience itself.

Most of *Memory Book* takes place exclusively within the hospital setting, however, there is one exception where Cooperman ventures outside to search for clues to the criminal case. Toward the middle of the narrative Cooperman becomes frustrated with his hospital confinement and believes that the only way he can recover his lost memories and solve the mystery of his assault is by leaving the hospital and tracking down witnesses at Simcoe College and a local steakhouse. Even though Cooperman has left the confines of the hospital behind, it is interesting that his investigation leads him to the biochemistry department at Simcoe College and that this department is the root of the entire crime. During his adventure outdoors Cooperman learns that he was initially investigating the disappearance of a popular professor and researcher in the department, Steven Mapesbury, who has been targeted by University officials because of his humanistic teaching approach. Cooperman also learns that Simcoe College is the center of vicious rumors regarding the development and distribution of narcotics in their laboratories. Despite being beyond the boundaries of the hospital, Cooperman finds himself still entrenched in scientific discourse within the politics of the biochemistry department and the endeavors of its faculty and laboratories. In this way, the sciences bleed into the narrative both in Cooperman's own recovery and in the actual mystery presented by the crime.

During his jaunt beyond the confines of the hospital Cooperman becomes intimately acquainted with the limitations of his new memory and the complications caused by his inability to read as he tries to blend into his surroundings and question potential witnesses. While he is on

his adventure Cooperman wrestles against the cognitive deficits described by his doctors and nurses. It is not until he experiences these deficits in the context of the real world, however, that Cooperman truly understands how the medical terms translate to his personal experience. When Cooperman returns to the hospital and is scolded by his nurse for leaving, he admits to himself how overwhelming the entire experience was and the toll it took on his physical and mental wellbeing:

I wasn't used to the world *out there*. It was foreign and dangerous, subject to frivolous changes in temperature and humidity. The people *out there* moved guardedly, while gusts of hot air blew scraps of newspapers along the sidewalks, out into the street and up into the air, where they rose like ballet dancers taking flight. Inside the hospital, the weather was under strict control, air-conditioned, unexcitable, dependable, unreal. I was going to have to adjust to reality in easy stages. (166)

This moment is one of the novel's most striking indications of scientific methodology and its incompatibility with the aspects of reality. In this scene Cooperman makes direct comparisons between the two realms by calling everything existing outside of the hospital the "world *out there*," drawing attention to its positionality by repeating and emphasizing the phrase "*out there*." This phrasing suggests intentional isolation or separation of the medical realm from the outside world. Cooperman sets up a comparison between this outside world that is "foreign and dangerous, subject to frivolous changes in temperature and humidity," and the hospital where the "weather was under strict control, air-conditioned, unexcitable, dependable, unreal." The two worlds exist as binary opposites of one another. Furthermore, while Cooperman's comparison seems to favor the world of hospital, he ends his positive list of descriptors of this setting with the word "unreal," showing that despite its ability to provide a temporary haven of homeostasis, this environment can only provide fleeting respite from the realities of the outside world. Cooperman's brief adventure into the real world removes the safety net of the hospital and the security provided by the 24-hour care of the medical staff and, as a result, forces Cooperman to

come to terms with the real-life implications of his cognitive impairment and memory loss. Surrounded by medical support and with the comfort of his memory book on his bedside table, Cooperman is lulled into a false sense of cognitive functioning and believes that he can and should be discharged and allowed to reenter the streets of Toronto in search of key witnesses and a break in his case. He is faced with a different reality altogether when he ventures outside and it is only when he returns to the manufactured safety of the hospital that he learns that he is going to have to shift his own perspective and “adjust to reality in easy stages.” This is an important moment of realization in the novel because it reaffirms Cooperman’s position as the intercessor between the scientific and non-scientific realms. Engel intentionally moves Cooperman in and outside of the hospital setting, deliberately establishing him as the lens through which readers experience and push back against the scientific realm. Cooperman’s discovery and investigation of the strengths and weaknesses of scientific inquiry allow readers to come to similar conclusions, ushering them toward the blended, transdisciplinary approach Engel sets up throughout the narrative.

Cooperman’s interaction with his environment provides valuable information about the methodologies, perspectives, and expectations of the scientific settings in which he has been circumstantially bound, however, looking at how other characters engage with the hospital setting provides further evidence of the natural dissonance between the isolated, highly controlled nature of the hospital, and the reality that exists outside its walls. One simple example of this clash is seen in the various items that people bring to Cooperman throughout the course of the novel. As expected, all of the characters associated with the hospital (doctors, nurses, therapists, social workers) present Cooperman with an array of medically oriented items—a memory book to help him keep track of his therapies and appointments, a barrage of medical

tests and their results, blood draws and urine samples, evaluations of his progress and inability to be discharged, to name a few—all the exchanges one might expect between the medical staff and a patient. Non-medical visitors (parents, police officers, girlfriend, suspects) present Cooperman with different types of items—chocolates, homemade soup, and various elements from the “outside” world—each with the intention of making Cooperman feel more comfortable and homier, and to deafen the stagnant, isolated feel of the hospital. The differences in these exchanges draw attention to the perspectives and goals of the scientific and non-scientific realms. The scientific community creates an environment driven by acquiring and applying knowledge while Cooperman’s visitors aim to infuse the sterile hospital atmosphere with comfort, familiarity, and common accouterments of the real world. Even though the goals for the exchanges are different, it is useful to recognize how both approaches operate to meet the patient’s needs. For example, the medical exchanges are meant to provide physical and cognitive stability and recovery. The non-medical exchanges, on the other hand, facilitate comfort and are meant to infuse the sterile hospital environment with aspects of reality. While these non-medical exchanges do not provide much in terms of recovery, they do remind readers at different moments throughout the narrative that the hospital environment is temporary and will eventually reach a threshold for the recovery process.

While the physical exchanges between Cooperman and various characters help construct a divide between the realms of the scientific and non-scientific, different characters’ reactions to the hospital setting reinforce these divides. For example, many characters repeatedly reference the extreme, uncharacteristic weather patterns taking place outside as means of contrasting the different environments. The hospital staff and many of Cooperman’s visitors remarks about the oppressive heat outside, and Cooperman experiences this for himself when he ventures beyond

the hospital and into “the world of melting asphalt” where the “pavement was like a gridiron or barbecue” (155). In addition to the extreme heat, Cooperman learns during one of his parents’ visits that the weather is made more absurd by the occurrence of an eclipse. The eclipse operates as a metaphor on multiple levels in the narrative. On one hand, the extreme nature of the weather outside draws a strong comparison between the controlled, air-conditioned hospital facility and the reality that lies just beyond its walls. Compared to the hospital the world outside is characterized by extremes and ever-changing variables. On a completely different level, the eclipse operates as a larger metaphor for Cooperman’s memory function and the methodologies used to study and understand it. The two approaches are highlighted in a conversation between Cooperman’s parents and their differing views about the nature of an eclipse. Cooperman’s mother starts the conversation with her explanation:

“Benny, it’s earthquake weather out there. A steam bath. It’s spooky. Not only is it hot enough to melt the streets, there was an eclipse of the sun earlier. It’ll be blood on the moon next. No wonder people are superstitious about eclipses. There was an eclipse in Rome the day Julius Caesar was murdered. Eclipses are the heart of everything unnatural.” (54-55)

Cooperman’s father, on the other hand, quickly interposes by saying that it is a “lunar eclipse” and correcting his wife by explaining, ““The moon comes in front of the sun, right? So it’s the moon doing the eclipsing. You have to take it logically step by step”” (55). The pair argue back and forth for some time about the nature and interpretation of the eclipse until Cooperman’s mother finally ends the conversation by asking her husband, ““What other nonsense are you selling today?”” (55). The conversation between Mr. and Mrs. Cooperman presents two ways of looking at the same phenomenon. On one side is Mrs. Cooperman’s view of the eclipse as something “spooky,” “superstitious,” and “at the heart of everything unnatural;” and on the other hand is Mr. Cooperman’s view that insists on taking the phenomenon “logically step by step”

and using correct and specific terminology. If readers are meant to interpret the eclipse as a larger metaphor for the phenomena of memory and cognition, this conversation between Cooperman's parents acts as a metaphor for scientific and non-scientific approaches. The pair try to convince their son of their perspectives, but rather than taking sides or showing any inclination toward one viewpoint over the other, Cooperman stays silent and waits until the conversation naturally shifts. Cooperman's resistance in taking sides buttresses his role as the unbiased intercessor and hints to readers that two very different approaches to memory will be breached throughout the duration of the novel. As the next chapter will show, this moment also demonstrates that rather than taking sides, Engel supports a transdisciplinary approach to the study and probing of human memory. In this way the eclipse represents a convergence or overlap of approaches to the study of memory, foreshadowing the blended method that Engel will leave readers with by the end of the narrative.

The environment of the eclipse provides readers with both the possibility of dissonance and convergence, but in analyzing how other characters engage with the physical setting of the novel it becomes clear when and how the realms of science and reality clash. This is exhibited during a visit from officers Boyd and Sykes when they try to get a statement from Cooperman about his assault. During the visit the officers are extremely awkward, so much so that they have a hard time completing the task their visit facilitated in the first place. Cooperman describes the officers' discomfort when he narrates, "Even as visitors, they stand woodenly, speak unnaturally, and leave at the first opportunity. Maybe they see the hospital bed as a deathbed. Maybe it's the subdued indirect lighting at the head of the bed, and the equipment for taking blood pressure, supplying oxygen" (50). Cooperman qualifies Boyd and Sykes as "visitors," differentiating them from the hospital and its usual archetypes. He also demonstrates how uncomfortable the men are

in the hospital setting, describing them as “stand[ing] woodenly” and “speak[ing] unnaturally.” Cooperman suggests that perhaps their discomfort stems from the dissonance between their normal setting and the hospital room with its “deathbed” and the lighting which accentuates “the equipment for taking blood pressure [and]...supplying oxygen.” Boyd and Sykes’ reaction to their surroundings demonstrates the friction between the scientific world and reality. The two visitors are not close friends of Cooperman so readers can infer from their initial visit that their discomfort stems less from Cooperman’s health or medical diagnosis, and more from the hospital setting itself and what it represents. Cooperman’s statement that the two men could be interpreting the “hospital bed as a deathbed” hints at the kinds of associations hospitals carry with people outside of the medical field. To outsiders of the scientific community, the hospital setting evokes a sense of illness, death, fear, and the loss of power and control. Comparing the hospital bed with a deathbed also indicates a complete separation—through death—with life itself, not just the trappings of the outside world. Boyd and Sykes are so ill at ease when they come to Cooperman’s room and see him awake in bed that they are rendered incapacitated and are only able to trade stares between the medical equipment and the patient. At this point, Cooperman realizes that he must intercede and try to put the men at ease even though when he tries to clear his throat and start the conversation both men continue staring and “Sykes’s mouth dropped open...like he hadn’t expected the body in the coffin to answer back” (50). Again, Cooperman’s description of the officers’ reaction to the setting is likened to death by taking the comparison of the hospital bed a step further and suggesting that it is not only a deathbed, but a coffin. In this passage he also refers to himself as “the body,” divorcing himself of personality or individualism and reducing himself to an object which further reinforces the separation between the hospital, and the officers’ world. To counteract the officers’ reactions Cooperman must

proceed with an overly jovial tone and comedic banter, showing that he recognizes the need to intercede on behalf of the unfamiliar setting to reassure the men. This change in tone and overall approach is not uncharacteristic of Cooperman—readers have experienced this persona several a few times leading up to this moment—but when Cooperman tried using these tactics with his doctors and nurses, they produced no results. This time is different. Cooperman can utilize this personal approach to jolt the officers from their reactive state and jumpstart the conversation. Once Boyd and Sykes have acclimated to the environment, Cooperman intercedes more directly for the sciences to explain his cognitive condition in a way that makes sense to his visitors. He explains, “I don’t sound like I’ve got a badly functioning noggin, but I have. Ask my nurse. She’ll tell you I’ve got a hole in my head that you could lose a dollar’s worth of change in” (50). Here, Cooperman acts as an intercessor for Boyd and Sykes, explaining his cognitive condition in terms that are translatable and easy to understand. Cooperman avoids all the cognitive, neuro-specific terminology he has heard in the hospital so far like “immediate memory,” “displacement,” or “alexia sine agraphia,” and instead uses slang terminology like “noggin” to refer to the brain region and likens his memory to a “hole in my head” that could “lose a dollar’s worth of change.” This moment in the narrative highlights two things: First, it not only recognizes but emphasizes the dissonance between the realms of science and the real world; and because of this clash, it presents the opportunity for Cooperman to step in as an intercessory moderator. Cooperman takes on the role of intercessor between the two realms, foreshadowing his trajectory throughout the entire narrative as the intercessory character that must transfer and translate perspectives from both worlds to solve the criminal mystery and better understand his own shifting cognitive realities.

Memory Book is set almost exclusively within medical and scientific environments and readers find that even when Cooperman leaves the confines of the hospital, he is still engulfed in the world of the hard sciences as seen through the jaunts to the biochemistry department and the laboratories at Simcoe College. These settings are teeming with tropes and accouterments indicative of scientific epistemology and, as such, they demonstrate that much of what Cooperman experiences and learns about his memory and cognition is filtered through the lens of scientific methodology. Cooperman's ability to physically move in and out of the scientific worlds represented in the novel marks him as the central intercessor for the narrative and demonstrates his ability and the necessity of translation. Whether through his refusal to take sides—as seen in the eclipse scene—or in his ability to put Boyd and Sykes at ease, readers experience the ways in which setting impacts Cooperman's ability and necessity to act as an intercessor. As he takes on this role he draws attention to both perspectives, highlighting their points of overlap and divergence.

Intercessory Characters. Another way that literary intercession takes place in the novel is through its use of scientific and medical characters who disseminate their field-specific knowledge and approaches to the study of memory to Cooperman and the reader. Dissemination of scientific thought happens at various levels throughout the text depending on a character's place in the larger hierarchical structure within the hospital. This structure also determines a character's ability, and credibility, to disperse and then translate theories of memory and cognition. Doctors, for example, exist at the top of this epistemic hierarchy and present observations and facts while nurses, like McKay, or the hospital social worker are responsible for translating for Cooperman and the readers. At the top of the hierarchy doctors are depicted as highly knowledgeable, but severely inaccessible. They are isolated and isolating, and as a result,

they disseminate information but rarely carry the burden of translation. Cooperman comments on the physicians' role in the epistemic hierarchy when he states:

Visits from the doctors were rare, and we made much of them. Doctors were the celebrities of the corridor. You could hear them coming. You could hear their voices as they made their way from room to room. The musical chatter of the nursing station was muted when the spoor of physician was in the air. When they were on the floor, theirs was the only buzz. Even the elevators' pinging seemed to stop. The doctors moved from bed to bed in a tight military formation. Every patient was given a dole of cheer before the phalanx moved on and the normal sounds of the day returned. (21-22)

Cooperman describes the doctors as the “celebrities of the corridor” and explains that their visits are “rare” which demonstrates their hierarchy in the medical community and the value ascribed to their expertise and knowledge. In a later visit Cooperman overtly gestures to the inherent medical hierarchy when he ponders, “Were these the remnants of ancient battle lines?” as a reference to the professional ranking between doctors, interns, and nurses (41). While the doctors hold a prominent position in the hospital hierarchy, Cooperman’s description of them as “spoor” and as “the phalanx” along with their regimented movements from “bed to bed in a tight military formation” gives readers the sense that the doctors are unapproachable and meticulous but also devoid of human characteristics. Contrasting the “musical chatter of the nursing station” with “the phalanx” of doctors and interns alongside the narrator’s description of how the floor is “muted” even down to the “elevators’ pinging” gives readers a sense of sterile isolation accompanying the doctors’ presence. During another visit from the doctors Cooperman uses the same calculated, militaristic language to describe their presence when he says, “They came in a tight formation, like a phalanx of warriors, shoulder to shoulder” (40). The descriptions of the doctors and their physical movements is a narratological nod toward their methodologies and how they study memory in sterile environments and through strictly controlled experimental

designs and mechanisms. The doctors are representatives not only of the scientific knowledge that they carry, but of the scientific processes and methodologies that they uphold in their field.

While the doctors represent scientific inquiry and processes through their physical characteristics and movements, Cooperman's second doctors' visit speaks directly to the doctors' ability to disseminate and translate their knowledge about extreme cases of memory to others. During this visit the doctor's treatment of Cooperman and his tonal code switching indicate who has special access to the medical information the doctor relays. The lead physician speaks to Cooperman in a "friendly bantering tone" but has "another voice for his submissive entourage," the trailing interns (40). Dr. Ron Collins proceeds to speak both to Cooperman and to his interns, but each time Dr. Collins addresses the other doctors, Engel indicates the change in tone with parenthesis, "Lift your right arm, Mr. Cooperman. (He was comatose for seven weeks.)" (40). When Dr. Collins addresses Cooperman he mostly rattles off a series of commands to test his motor skills, all of which Cooperman describes as patronizing performance. To the interns and nurses Dr. Collins ejects a series of observations, directives, and medical facts that Cooperman describes as "machine-gun-like comments on everything from my blood pressure to the blinking fluorescent tube behind my bed;" and when the doctors finally leave his room, he explains that he needs time to recover from "being examined under a microscope" (40). This second interaction is important because it illustrates the common divide between the scientific and humanistic worlds, and it stresses this divide by highlighting the differences in the way that Dr. Collins engages with Cooperman and the rest of the medical staff. Howard Engel's use of parentheses in this section signals the intentional divide by literally setting certain pieces of information aside for a specific group of people and isolating another. During the visit Cooperman goes so far as to narrate that "He [Dr. Collins] went on to enlighten the interns. But

[did so] without passing anything new along to me,” indicating that knowledge about his own mind and memory is privileged and can only be accessed and interpreted by those deemed worthy of its study (41). At the very top of the scientific hierarchy represented throughout this novel, the doctors occupy a position of privilege that is inaccessible to Cooperman and, by extension, the reader. While the doctors do disseminate some information by sharing aloud amongst one another that ““(The fracture’s coming along nicely,”” and there is, ““(No displacement),”” (40) they never take the time to translate or interpret these findings for the patient. The depictions of the doctors in this novel appear quite harsh and, at first glance, could be taken as a critique of scientific inquiry in claiming dominance over the study of memory; but these characters should instead be read as indicators of how memory is traditionally studied and the crucial need for additional people to translate, inform, and bring real-world context to issues of memory.

The condensed, highly specialized knowledge generated by the doctors is never passed directly to the patient, as the previous interaction demonstrates, so it is up to a secondary set of medical professionals to funnel scientific knowledge about memory to Cooperman and the reader. The doctors in the novel clearly demarcate a strict, isolated version of neuroscience that is not easily accessible or translatable to the average individual, but the nurses function as an important part of the dissemination process for this type of information. One of the most prominent characters in explaining Cooperman’s condition is his nurse, Carol McKay. Nurse McKay is the first person Cooperman encounters in the novel and she acts as a consistent and repeated interpreter of his cognitive abilities and impairments. As mentioned earlier in the chapter, McKay is the one that explains Cooperman’s injury in layman’s terms, repeatedly reminds him that he was not in a train wreck and discloses that he has a rare complication (alexia

sine agraphia) that further impedes his memory. After his first conversation with McKay Cooperman admits, “I knew that she was a resource person and that I’d be foolish not to listen to her,” indicating that he acknowledges her medical expertise as well as her ability to translate crucial information passed down from his doctors (21). McKay and the other nurses work as interpreters of the complex medical diagnoses and terminology that Cooperman overhears from doctors and their test results. Upon learning of his amnesia Cooperman asks McKay to elaborate on his condition and tell him whether it is temporary or permanent. McKay replies, “As far as we can tell, your mind, your ability to think, to talk, to figure things out, is intact. . . That means that your cognitive powers are mostly intact. We have tested your reflexes and your motor abilities. All intact. . . . The bad news is we are almost certain, from tests you won’t remember now” (12). During this interaction McKay relates the various tests and their results, telling Cooperman that many cognitive functions such as thinking, talking, and reasoning as well as motor skills and reflexes are all functioning normally. She includes a caveat, however, when she relates that his cognitive powers are “mostly intact,” and then shifts quickly to address his memory as part of the cognitive impairment. McKay is the first person Cooperman encounters when he wakes in the hospital and she carries the burden throughout the entire narrative of keeping him apprised of the particulars of his condition and of translating the information that the doctors pass along amongst one another but never directly to Cooperman. Rather than his doctors, Cooperman trusts McKay’s explanations and looks to her to learn more about his condition and medical progress as the story unfolds. McKay acts as an intercessor between doctor and patient, somewhat of a more traditional role for a nurse, but she also acts as the intercessor between the scientific realm and a layman’s understanding of memory function in a broader sense. As their initial

conversation shows from earlier in this chapter, readers learn through McKay the details of Cooperman's cognitive condition and the extent of his memory and reading impairments.

McKay extends her intercessory duties when she provides Cooperman with his Memory Book—a tool that operates as an external extension of his memory. After McKay has spent a considerable amount of time explaining and repeating her explanations to Cooperman, she comes to draw blood and take his blood pressure but first asks when the last time was that he had his blood pressure taken? Cooperman replies, “I don’t know. If you don’t keep track of these things, am I supposed to?” to which McKay replies, “You have to be your own advocate around here, Mr Cooperman. It’s the only way to be sure. I tell everybody that, and they laugh. But I’m not joking” (60). This interaction is strange and somewhat alarming as McKay hints that the scientific/medical community can be unreliable and faulty. She urges Cooperman to become his “own advocate” and warns him that she is “not joking,” about this important matter. McKay is stressing the idea that although valuable, the scientific process should not be passively experienced. A few minutes later, McKay provides Cooperman with a memory book where he can “jot down appointments and dates,” and use as an external aid to give his “memory a kick-start” (60). McKay encourages Cooperman to use the memory book as an external memory aid, “Let it become your memory. Let it help you” (60). Even though Cooperman is unable to read what he has written, the memory book helps him keep track of important information regarding his medical condition and ultimately operates as a means of coming to terms with his new, broken memory by encouraging him to generate new, creative ways of remembering, processing, and recalling. McKay has acted as an intercessor for the scientific community by translating Cooperman's cognitive issues in an easy to digest manner, but in this moment, she signals the importance of being able to take that knowledge and put it into practical use to craft a new way

forward. As we saw in the previous chapter, the memory book becomes an indispensable aid that Cooperman relies on for both his cognitive recovery and as an external memory in which he can store all the details and clues of the criminal case. The memory book allows Cooperman to acknowledge his memory's frailties and simultaneously construct an alternative way of gathering and processing information through an interdisciplinary approach that includes science, personal experience, observation, and writing. In this way, *Memory Book* not only intercedes on behalf of the sciences to disseminate and translate information, but it intervenes by suggesting that through an interdisciplinary, blended approach the concept of memory can be better understood, tested, and put into practice in the real world.

Another intercessory character for Cooperman and the readers is the hospital social worker, Stan Martin, who visits Cooperman towards the middle of the narrative. At this point Cooperman has been visited several times by the phalanx of doctors, received a barrage of tests, undergone three different types of therapies, and has become comfortably acquainted with McKay's medical translations. Cooperman has also recently received his memory book and is making good use of it to keep track of his medical appointments, cognitive condition, and of course the details of the criminal case. Like many traditional detectives, Cooperman is itching to be discharged from the hospital and resume the regular pace of everyday life to crack the case at Simcoe College. When he is called into a meeting with Martin, however, he is reminded of the severity of his cognitive deficits and the complications that a distorted memory has on his ability to properly function in the real world. When the meeting begins Cooperman quickly asks when he will be discharged, making sure to add that his memory book has solved many of his memory problems. In response, Martin puts Cooperman to the test:

"What floor are we on?"

"What?"

“What floor? *This* floor. What number?”

“What’s that matter? The fifth or tenth. I don’t know.”

“You don’t know because numbers, figures, confuse you. They don’t stay in your mind any more. That’s why you were given a Memory Book.” (127)

In this moment Martin pushes back against Cooperman’s request for discharge by demonstrating his inability to remember a simple detail. While this moment may not at first seem like one of intercession, it emphasizes the practical application of a larger scientific principle. While the doctors spew medical jargon and McKay works to translate it into layman’s terms, Martin exposes how these ideas translate into Cooperman’s real-world experience and his ability to function outside of the hospital setting. Despite this, Cooperman remains obstinate and tries to reassure the social worker that he is fully recovered and ready for discharge. Martin replies:

“Your memory is still a problem. It’s going to get better, but it isn’t better yet, is it? Do numbers or names confuse you more? Do you remember my name? Any of your nurses’ names? What about your therapists? Or should we switch to street names? Does Yonge Street cross Bloor? Does Bloor cross St George? Does St George cross St Clair?” (127-28)

Martin rapid fires these questions at Cooperman, knowing that he is unable to answer any of them. In fact, as soon as Martin finishes speaking all Cooperman can do is retort, “You *know* I don’t live in Toronto,” as a way of deflecting from his inability to answer any of the earlier questions unrelated to the street names (128). In the first passage Cooperman fails one test, but in this moment readers experience repeated failures as Cooperman is unable to answer any of Martin’s several questions. These occasions of memory failure work in conjunction to demonstrate Cooperman’s ongoing trouble with recall and his inability to properly function in the real world. Toward the end of their conversation, after having demonstrated the practical impact of Cooperman’s medical condition, Martin sums everything up:

“Just stop beating your skull against the wall. You’ve had a bang on the head. You’ve had memory loss. Your life is going to be different from now on. Those are facts. We

can't change them. It's time to get used to the facts and begin the return journey. We can't take you all the way, but we can give you a start." (129)

Martin ends their meeting with the simplest explanation of Cooperman's medical predicament, "you've had a bang on the head. You've had memory loss. Your life is going to be different from now on." Up to this point, Cooperman has overheard the doctors talk about his cranial displacement and has learned what alexia sine agraphia is from McKay, but Martin is the one who sums up his entire condition in the simplest, most practical terms. From Martin's repeated use of the term "facts" to describe Cooperman's condition, readers can reasonably infer that these include all the scientific jargon and medical test results he has endured thus far. In any other crime fiction novel these three simple sentences could stand alone as the only explanation of a character's cognitive state, yet in this instance Martin's explanation is part of a larger act of translation that works to disseminate scientific knowledge in uncomplicated, applicable terms. Finally, it is important to note how Martin ends the conversation by stating, "We can't take you all the way there, but we can give you a start." Martin's use of the word "We" refers to all the medical staff at the Rose of Sharon hospital and, by extension, the larger scientific and medical communities; but in referencing this community he is careful to state that this specialized knowledge and training "can't take you all the way" but can only provide "a start." Martin acknowledges the value of the sciences especially when it comes to memory loss and cognition, but he is also aware that this knowledge only extends so far. This admission is key to the larger goal of this dissertation because it opens the door for the way forward that the novel presents, a discussion that we will address in the following chapter.

Memory Book uses familiar medical characters such as doctors, nurses, therapists, and hospital social workers to demonstrate that conceptions of memory and cognition traditionally belong in the medical and scientific communities and trickle down a larger epistemological

hierarchy to eventually reach the average person. In Cooperman's case the doctors exist at the top of this scientific food chain and it is the job of the nurses and social worker to translate the complicated ideas and jargon to the patient. Furthermore, Cooperman's memory book functions as a means of personal reflection and contemplation on his broken memory, giving him further opportunity to process and recall the information passed to him by the medical staff. While on one hand *Memory Book* articulates literature's ability to intercede for the sciences, the inclusion of these characters also hints at literature's unique capacity to intervene in the conception of memory and contribute unexplored avenues and perspectives. The memory book, for example, not only allows Cooperman to process his new mind but gives him the opportunity to acknowledge the frailty of his new memory and construct an alternative, transdisciplinary way of gathering and processing information that includes approaches from the sciences, personal experience, observation, and the act of writing. Additionally, while much evidence throughout the novel points to the sciences as the hub of knowledge about the mind and memory Cooperman's conversation with the hospital social worker assures readers that the sciences can only take a person so far, and that eventually it comes down to personal experience and application of scientific knowledge in the real-world that determines how memory operates beyond the confines of the scientific method or the sterile laboratory. This is not to say that Engel's novel undermines the sciences, the medical community, or the many valuable contributions they have made to the field of memory studies; rather, *Memory Book* affirms these ongoing contributions while also offering literature, and crime fiction specifically, as a way of introducing how a blended approach between the sciences and the humanities could open new possibilities for understanding how memory functions in everyday life.

Memory Metaphorics. Another way texts of extreme cases of memory work as literary intercessors to disseminate and create new avenues of knowledge about memory and cognition is by using metaphors. *Memory Book* relies on metaphor at different points throughout its narrative to sketch the irregular boundaries around memory and conceptualize how and when memory succeeds or fails. Engel's novel also uses metaphors to push back against traditional, scientific ways of conceptualizing the human mind and advocate for alternative ways of narrativizing memory. In his article entitled, "Can Literary Studies Contribute to Cognitive Neuroscience?" Roel M. Willems explicates the scientific processes that neuroscience commonly relies on, but points to the "finesse in terminology" as one of the humanities greatest opportunities for collaboration and engagement in cognitive study. One way literature contributes to this effort is by employing metaphors. In the long history of memory studies, metaphor plays an integral part in both conceptualizing and explaining memory function. Memory metaphors concretize the mind and make the theories of memory easier to visualize and understand. Ancient philosophers like Aristotle⁴ and Plato⁵ are the founding fathers of the study of memory, and each of these thinkers brought with them their own theories and metaphors for memory. Platonic metaphors such as the wax tablet and the storehouse are some of the most cited,⁶ but with each new metaphor came different perspectives on how memory functions, its location in the mind, and its capabilities and limitations. The variation and number of metaphors used to describe memory draws attention both to memory's complexity and to its ongoing

⁴ For more on Aristotle's contributions to memory conception, see *On Memory*.

⁵ For more on Plato's contributions to memory conception and the mind, see *Theaetetus and Sophist*.

⁶ For more on these and other popular memory metaphors see Mary Carruthers', *The Book of Memory: A Study of Memory in Medieval Culture*; Douwe Draaisma's, *Metaphors of Memory: A History of Ideas About the Mind*; and Michael Rossington and Anne Whitehead's edited collection, *Theories of Memory: A Reader*.

abstraction.⁷ In her book, *Metaphors of Memory: A History of Ideas About The Mind*, Douwe Draaisma suggests that metaphors are especially useful in the sciences because they are interpreted as helpful substitutions for the concept they are exploring. Metaphors “express what cannot be said literally—either not yet or in principle,” so, for example, explaining that molecular connections are like magnets or that a hydrogen atom is like a planet in orbit exemplifies how scientific language is made plain by metaphor (11). Metaphor, especially in the sciences, operates as a heuristic tool. Draaisma goes on to draw an important distinction between metaphor either as a theoretical or empirical heuristic and suggests that understanding how these heuristics are classified helps readers grasp the intended purpose of a metaphor. As a theoretical heuristic “metaphor introduces new theoretical notions, brings coherence to hypothetical processes or is able to resolve apparent contradictions between experimental results” (18). Empirical heuristics, on the other hand, “describes the degree to which a metaphor produces new topics for research” (18). Theoretical heuristics aim to clarify, concretize, and make comparisons whereas empirical heuristics are motivated by their ability to innovate and motivate new perspectives.⁸

⁷ Metaphors cover a vast amount of territory in trying to conceptualize memory. The metaphors employed range from objects (wax tablet, mystic writing pad), to physical storage locations (museums, libraries, houses, warehouses), and even landscapes (woods, fields, labyrinths). As time progresses and technologies change, so do the metaphors used to describe memory and according to Douwe Draaisma these metaphors have recently shifted to focus on the “procedures and techniques we have invented for the preservation and reproduction of information” (3). Thus, in more recent years memory has been likened to records in a filing cabinet, a hard drive, and even computers.

⁸ Draaisma points to the development of Mendeleyev’s periodic table of elements as an example of metaphor as a heuristic tool. She writes, “In 1866, three years before Mendeleyev compiled his periodic table system of elements, the English chemist Newlands presented a specification of elements by using the analogy of a piano keyboard. Newlands grouped the elements in a series of eight and compared those series to octaves, because each eighth element was a repetition of the first” (17). This also serves as an exemplar of both a theoretical and empirical heuristic because in relating the elements to an octave on the piano he brought clarity to the theoretical concept

Metaphor not only works to explain or encourage new avenues of research but in texts of crime fiction it provides a useful historical roadmap for how memory studies has developed over time. Memory studies relied on metaphor extensively throughout its long history and the different metaphors point to specific moments in that history, marking the developments and changes in thought. Draaisma refers to these context-specific metaphors as “guide fossils” because they indicate the thinkers, eras, and the cultural moment in which the metaphors were produced:

Over the centuries memory aids provided the terms and concepts with which we have reflected on our own memory. We have “impressions”, as if memory were a block of sealing-wax into which a signet ring is pressed. Some events are “etched” on our memory, as if the memory itself were a surface for engraving upon. What we wish to retain we have to “imprint”; what we have forgotten is “erased.” (3)

Metaphorics have shaped the way we talk about memory and as the historical and cultural references for those metaphors change over time, so do our explanations of how memory is encoded, stored, and recalled. Metaphor crafts an ongoing dialogue about memory that uses common language so that individuals from different perspectives and disciplines can engage in ways that foster both theoretical and empirical knowledge. In this way, metaphors are used in crime fiction texts not only to explain the inexplicable, but to garner reader engagement in conceptualizing the mind and memory. Metaphorics in these texts imagines literary intercession not a one-way road where scientific knowledge is disseminated to the masses, but a complex highway of interaction and ongoing knowledge creation within the realm of memory studies.

while also inspiring other scientists like Mendeleyev to further develop the concept. In this way, it should be noted that the distinction between theoretical and empirical heuristics can easily be blurred. Although this is true, and relatively common, knowing the intended purpose of the metaphors at play can aid readers in making useful distinctions.

Memory metaphors are abounding throughout the entire novel but they are most prominent and concentrated toward the beginning of the narrative when Cooperman first learns of his amnesia and its various complications. The doctors and nurses admit that they do know *some* things about Cooperman's condition, but because his case is both extreme and rare, there is much left unanswerable about his case. This is supported by details such as the "phalanx of warriors" that comprise each doctor's visit and include doctors, interns, nurses, and trainees and by the medical professionals' own comments which show that with Cooperman "symptoms [are] abounding" and new information about the brain and memory are uncovered with each passing day (42). This opens the door for the metaphors in the novel not just to translate, concretize, and reiterate popular scientific conceptions of memory and cognition, but generate new knowledge about amnesia and cognitive function altogether, as Draaisma suggests. Table 2 provides a list of the metaphors employed in the novel with most of the metaphors taking place within the first fifty pages—the stage where Cooperman is learning about and coming to terms with his new mind. Unlike the metaphors of Plato and Aristotle that capture what memory *is* or *does*, Engel's novel sketches these concepts apophatically, grasping for definitions and answers through negation.⁹

⁹ Apophasis is a rhetorical device used to describe something by explaining what it is not. The Merriam Webster dictionary defines apophasis as "the practice of describing something (such as God) by stating which characteristics it does not have especially because human thought or language is believed to be insufficient to describe it fully or accurately."

Metaphors for Memory, the Mind, or Cognitive Function	Location in <i>Memory Book</i>
Pieces of the puzzle	5
Too scrambled to sort out	7
Jell-O that hasn't set properly	11
Fog	11
Fragments and Shards	11
Confetti	11
Pieces of a smashed dish	11
"Echoes of voices in a great hall. Maybe a museum"	11
"I was really rolling back the clouds now"	11
"I paused, scanning my recent memory"	16
"I repeated the name under my breath, trying to anchor it in my brain"	16
Lock-up/Oubliette	28
Swiss cheese	28
"Hole...you could lose a dollar's worth of change in"	50
Filigrees of twisted silken strands	78

Table 2: Metaphors used in *Memory Book* to translate, concretize, or conceptualize the concept of memory.

Table 2 (cont'd)

Latticework of aids	78
Sunspot	97
One-lane mind	114
Overloaded circuits	114
Echo going around my head	120
Ghost of a possibility	120
Murky crystal ball	124
Mind» without a bookmark	135
Vague clot of memory	169
A Sieve	195

These metaphors heuristically narrate the breakdown of healthy memory into a state of complete amnesia. For example, likening Cooperman's memory to "Jell-O that hasn't properly set yet," demonstrates that he can still vaguely remember various aspects of his life and who he is, but that his recollections are shaky, unstable, and unreliable (11). Cooperman demonstrates that his memory is not intact or whole when he likens it to "pieces of the puzzle," "fragments," "shards," "confetti," "pieces of a smashed dish," and "swiss cheese." These metaphors also indicate that his memory has not been completely erased, but that it lacks context and the ability to piece the disparate parts back together in a logical, meaningful way. Thus, even though fragments remain, they are rendered utterly useless. This indicates that memory is more nuanced and includes more

than simple encoding, storage, and recall; it is directly tied to identity and the ability to understand, interpret, and engage with the surrounding environments. Like the storehouse and aviary metaphors of old which suggest a location and storage and recall abilities of memory, Cooperman suggests that his memory is like a “lock-up” or “oubliette” where memories are trapped instead of perfectly ordered and easily retrievable. This metaphor speaks to the malfunctioning of memory and to the difficulties that arise and disrupt the retrieval process.

The metaphors compiled here not only encourage readers to start defining memory through negation but they inspire a multifaceted view of memory that is less homogeneous, and more nuanced (see table 3). In other words, the metaphors used through *Memory Book* support the view of memory as a spectrum that considers more than just memory retention and loss but all the shades in-between. Table 3 depicts a progression of forgetting from inaccessible or complete loss to memory malfunctions.

Inaccessible/Lost	Fragmented	Unclear	Unstable/Malfunctioning
Lock-up/Oubliette	Pieces of the puzzle	Fog	Too scrambled to sort out
Hole...you could lose a dollar's worth of change in	Fragments	Echoes of voices in a great hall. Maybe a museum. Nothing that made sense	Jell-O that hasn't set properly
Mind doesn't have a bookmark in it	Shards	Echo going around in my head	Filigrees of twisted silken strands
Mind like swiss cheese	Confetti	Ghost of a possibility	Latticework of aids to criss-cross my experience and expectation
Sieve	Pieces of a smashed dish	Murky crystal ball	Sunspot/The act of looking at it burned it away in a flash
		Vague clot	One-lane mind
			Overloaded circuits
			Tricks my new mind conjured up

Table 3: Metaphors from Table 2 arranged to show a progression of forgetting

Memory Book does not define amnesia as one thing, but many. Oftentimes these memory states overlap and create more complicated amalgamations. In some cases, amnesia fits the traditional bill of complete loss of the past, like the category titled “Inaccessibility/Loss” indicates. Other times, however, memories are intact but the process of encoding or recall is disrupted as is indicated by the category “Unstable/Malfunctioning.” The “Fragmented” and “Unclear” categories in the table show that memory loss does not always result in complete loss or destruction of the past, but in some instances, memories remain but lack their original clarity or the context that makes them useful. Categorizing these metaphors exposes *Memory Book*’s unique perspective on defining memory and its functioning as something more complicated and nuanced than a simple term like “amnesia” represents. In terms of literary intercession, the medical professionals in the novel disseminate popular theories about memory, but the text’s

metaphorics clue readers into the ongoing conceptualization of the human mind. The metaphors in *Memory Book* open avenues for new research and perspectives on memory and suggest that while scientific inquiry brings valuable knowledge to the table, a transdisciplinary approach to studying memory that includes literature and crime fiction specifically is what yields the most fruitful discoveries.

Beyond the simple cataloging of metaphors in the novel, Engel parses out one comparison early in the narrative between his protagonist and a portion of the hospital that is being demolished and rebuilt. When Cooperman notices the demolition project, he cannot help but liken his own situation to the one he witnesses from his hospital window. He ponders, “I could see the brick-and-cement shell of a hospital wing that was being demolished. . . . The old wing—bricks, mortar, and steel frame still partly covered in cement—was solid while it lasted. Until both of us dissolved into a new stage of falling apart, we appeared stable enough” (26). Like the building, Cooperman’s body is still physically intact, but he admits to the impermanence of this state when he states that it is only a matter of time before they are both “dissolved into a new stage of falling apart.” This metaphor shows that the mysteries of the mind cannot be easily read and interpreted through outward visible signs or observations and that amnesia cannot be interpreted simply as an immediate loss, but something more nuanced that happens in stages over time and cannot be solely conceptualized by scientific observation. On a different occasion Cooperman adds to this metaphor, expressing, ““For a few minutes, I stared at the hospital across the street. The wing in which I had been born was being demolished. It was making way for a newer idea of what a progressive hospital wing should be” (104). Cooperman’s claim that the demolished wing is the one in which he was born further solidifies the metaphorical connections between the deterioration of that portion of the hospital and the

narrator's own memories and personal past. The fact that it is being destroyed shows that Cooperman himself is in a state of deterioration and that his old ways of thinking and operating in the world are no longer applicable to his newly functioning memory. In terms of the concept of memory itself, Cooperman's comment that the old wing is "making way for a new idea of what a progressive hospital wing should look be" suggests that old models and metaphors for memory are no longer useful to him and that the approaches taken to study and observe memory need to be changed as well. Cooperman can no longer rely on his past to understand or operate in the world around him. He must open himself up to new ways of thinking, remembering, and processing information. Like the metaphors referenced earlier, Engel's use of this extended metaphor suggests that there are limitations to only considering one perspective or approach to the conceptualization of the mind. The metaphors in *Memory Book* push beyond these traditional views and methodologies and urge readers to consider what literature contributes to issues of memory and cognitive function.

The Denouement Moment—Advocating for a Blended Approach. Engel carefully orchestrates moments of intercession and intervention throughout *Memory Book* as a way of highlighting and contrasting varying approaches and perspectives presented by the scientific and non-scientific perspectives represented in the text. As readers near the end of the novel, Engel places literary intercession and intervention on full display by converging the worlds in the denouement moment. In doing so, Engel advocates for the collision of these two approaches into one that is beautifully blended across disciplines. Engel does this by taking advantage of a familiar mystery fiction archetype: the denouement moment where the detective unravels the complicated threads of the mystery. Utilizing this common plot device, Engel encourages blending by highlighting

the preparation that takes place before the denouement, bringing the two worlds in physical contact during the untangling of the mystery, and then demonstrating how a blended approach can be utilized by using one to solve the criminal mystery.

At the moment Cooperman believes he has solved the criminal mystery, he decides to follow in the footsteps of the detectives before him and gather all the narrative's characters into the same place for a grand demonstration of unfurling the criminal mystery. Because Cooperman is still in the hospital, however, this must take place in the patients' common room on the fifth floor of the stroke unit. Having been isolated from the real world and its conventions for several months, Cooperman admits, "I was hard pressed to know what to do for this mob" (205). Based on the reactions of visitors like Boyd and Sykes earlier in the narrative and Cooperman's own separation from the real world, he's not sure how to bring the two realms comfortably in contact with one another. He decides to turn to his number-one resource person, Nurse McKay. McKay's response demonstrates the strangeness of the request but also her ability to aid Cooperman beyond the purview of her medical job description:

She was amazed that I was even thinking of entertaining here on the fifth floor. But having expressed her shock and outrage for the record, she began making plans. She had an accurate notion of what party goods were available on the floor and where others might be found nearby. She wouldn't go along with bringing in a few bottles, but she said that she would overwrite the Ginger ale and soda personally. (205-06)

McKay's reactions to Cooperman's request to hold the event at the hospital—she is "amazed," and exhibits "shock," and "outrage"—again reinforce the dissonance between the two worlds that Cooperman seeks to bring together during the denouement. While McKay's initial reaction is negative, Cooperman says that she eventually gets over it and helps him make plans by gathering party supplies and even overwriting the "Ginger ale and soda personally." Nurse McKay is not the only one who helps prepare for the event, however, as Anna and Boolie

complete the task of inviting the guests. Cooperman explains that these are not the only contributions to the party planning as he relates that “Barberian’s Steak House had agreed to send over some fancy Hungarian pastries for dessert;” (206) Anna “volunteered to get some sandwiches from a university caterer;” (206) and many of the professors from the biochemistry department arrived and “unloaded their contributions of food and drink” upon arrival (207). Unlike earlier in the novel where the gifts and exchanges made in the hospital demarcated scientific from non-scientific characters, the contributions made at the end of the novel are a gesture of goodwill and collaboration between the two realms. The emphasis Engel places on the preparation and contributions of both the medical and non-medical characters symbolize a convergence of opinions, approaches, and perspectives. This moment is a fulfillment of the eclipse imagery that is depicted early in the novel because it physically brings the characters into the same space and shows how the contributions work together to create a new environment of cooperation and exchange through convergence and overlap. Even though these exchanges are presented in the form of food and drink, they symbolize the larger scientific, theoretical, and epistemic contributions being made by the medical staff, the biochemistry professors, the police force, the English department, the student body, and the private investigator. Engel brings these people together for the denouement and through their varying contributions shows that each has something valuable to contribute. Thus, in the act of planning and preparation Engel subtly suggests a blended approach to the concepts such as memory and cognition.

One of the most interesting aspects of the denouement moment is the list of attendees and how they physically represent all the disciplines in which Cooperman has been entrenched during the duration of the story. In true mystery fiction fashion, the room is filled with all the key characters that Cooperman meets, no matter their role. Looking across the room Cooperman

recognizes the professors of the biochemistry department at Simcoe College (the site of the crime), Anna Abraham (his girlfriend and a University literature professor), Boyde and Sykes along with some other plainclothes officers, Professor George Nesbitt (the University disciplinarian), and Heather Nesbitt (a student from the college who disguised herself as another witness when visiting Cooperman in the hospital). This list of attendees feels standard for the traditional mystery denouement, however, it is especially interesting that Cooperman specifically notes the presence of his “three therapists from gym, speech, and OT” who slipped in to join “the merry throng” (207), as well as a few nurses who help clean-up at the end. The denouement moment includes not only those intimately involved in or impacted by the criminal mystery, but the medical staff as well. In bringing these people together in the same location for the unraveling of the criminal mystery, Engel physically blurs the boundaries between the two realms. Cooperman does not exclude anyone from the denouement, and the fact that members from the hospital staff are in attendance demonstrates the interest they have in the unusual event and Cooperman’s ability to cognitively work his way through a complex network of clues and witness testimonies. Engel’s crafting of the denouement validates equal investment from a range of disciplines and grants permission for the overlap in approaches that unfolds over the course of the evening.

These first two instances of blending exhibited through the preparation for the event and the diverse list of attendees lay the groundwork for the final point that Engel drives home: the criminal mystery is solved by Cooperman’s use of a methodology that incorporates a mixture of objective facts and evidence; and personal, subjective observation and engagement. Cooperman starts detangling the criminal mystery by first laying out the known facts of the case. This is partially to remind his audience of the events concerning the crime—the disappearance of Dr.

Steve Mapesbury, Cooperman's assault, and Dr. Flora McAlpine's murder—and partially because it provides a familiar starting point for Cooperman to gain his footing and confidence amid his waning memory. Cooperman also starts in this manner because it is the most familiar and acceptable place to begin for his audience of scientists and law officials who are accustomed to this approach. Shortly after Cooperman begins, Professor Nesbitt interrupts saying, ““where do you expect this exercise to lead? Do you think you can turn him [Dr. Mapesbury] up with this hackneyed, paperback sort of game?”” (209). Representative of the head of Simcoe College's administration, Nesbitt's interruption represents the hesitancy of the sciences to accept other avenues of epistemology and to automatically dismiss them as “hackneyed” or a “sort of game” rather than a legitimate path to truth. Even though Cooperman is starting with the facts of the case, his theatrical presentation of them in a traditional mystery fiction performance is unfamiliar and appears hokey to Nesbitt. Nesbitt's interruption is important because it draws attention to the dissonance between the scientific and non-scientific processes, and finally forces Cooperman to address and ultimately resolve the tension that has been building throughout the entire narrative. Cooperman replies, ““The collecting of facts, Professor Nesbitt, is an orderly, scientific process. When assembled, they sometimes yield new information that wasn't visible before”” (209). His reply is telling because while it acknowledges the value of the scientific approach of gathering objective facts, it also shows the limitations of this single methodology. Cooperman's response is his first indication of the blended approach he plans to take. In the first part of his statement, he confesses that he will be collecting facts and following an “orderly, scientific process.” The second part of his statement, however, implies that the facts alone cannot reveal truth. Cooperman suggests that while the facts are useful, what is more important is the way they are assembled, their relationship to one another, and their interpretation. The act of observation and

interpretation of the facts is what yields “new information that wasn’t visible before.” After Cooperman has finished giving his summary of the case and the known facts, he claims that looking at the objective evidence is important because it ““closed some avenues that we don’t have to look down anymore, and it has sharpened focus on what and whom we are looking for”” (211). Again, Cooperman acknowledges that the orderly, scientific approach he references earlier is a crucial, necessary step in solving the mystery. In laying out the facts of the case first, Cooperman starts in a familiar place for the scientific and law-bound members of his audience because all the information he has presented so far is indisputable, objective, and would hold up in a court of law. He starts in a familiar place for many of his audience members, showing that their perspectives are valid and valuable. This move is important because it not only primes his audience but builds ethos for his drastic leap into the subjective.

As the denouement proceeds Cooperman leads his motley crew of listeners to an unexpected conclusion through an even more unexpected methodology. Unlike the numerous instances of detective figures unraveling the criminal mystery with a trail of facts and evidence that is assembled in exactly the perfect order and interpreted in precisely the correct way, Cooperman admits to his rapt audience that, ““The main piece of evidence is so subjective I hate to mention it”” (219). Because Cooperman is keenly aware of his audience’s proclivities and has been immersed in the scientific realm for the entirety of the narrative, he acknowledges the difficulty in presenting his final and most crucial piece of “evidence” because he knows that “It’s the sort of thing that would never be admitted as evidence in the court of law” (219). Cooperman’s admission of the subjectivity of evidence shows that he is aware of the jarring pivot he is about to make into the realm of subjectivity. He clearly admits that what he is about to present is not the kind of information that would hold up in a court of law or is seen as an

acceptable avenue under normal circumstances. Up to this point, Cooperman has led the audience to narrow their focus on Dr. Samson as the lead suspect in the case, and although he has already vaguely implicated him, one of Samson's colleagues implores, "'What else do you have?'" (219). It is at this point that Cooperman must reveal his subjective "smoking gun"—a dream.

Memory Book starts with a short dream sequence that recounts a chaotic nightmare involving a train crash. The dream sequence is visually set apart from the rest of the chapters in the narrative because unlike all the other chapters that are numbered one through twenty-eight, the section that includes the dream is given an actual name: The Dream. Its distinct positioning is highlighted even further by the fact that readers experience the dream sequence before they even meet Benny Cooperman and hear anything about his condition. The dream sequence is interesting because although Engel goes out of his way to make the dream distinct from the start of Cooperman's story, the narrative's setup is couched in the context of the dream so much so that the solution of the criminal mystery eventually leads readers back to its details. At first, the dream operates as a means of emphasizing Cooperman's broken memory and repeated memory lapses. For example, even though nurse McKay repeatedly corrects Cooperman when he insists that his head injury is a result of a train wreck, he cannot seem to accept a different narrative and let go of the dream. While the dream helps place readers in a space of cognitive dissonance and memory failure, it fades to the background of the plot until the denouement where it resurfaces as Cooperman's smoking gun in the criminal mystery. Although McKay is correct and a train wreck was never the cause of Cooperman's head trauma, his intuition about the relevance of the dream and his unwillingness to let it go is what eventually brings about the solution of the mystery. The dream sequence works on two planes to both place the mystery within the

cognitive realm of memory, and to solve the crime. It is where the narrative starts and where it eventually ends, creating a bookend effect that further bolsters support for a blended approach to both mysteries (memory and the crime) that relies on subjective, lived experience.

To make his final move during the denouement Cooperman launches into his dream sequence saying, “I ... I ... I believe that psychiatrists are right when they say that dreams are ways in which the subconscious tries to inform the conscious mind of what it knows” (219). Even in presenting what Cooperman believes is this key piece of information, his stuttering at the beginning of the statement indicates his own hesitancy to present it to his audience. He also starts his explanation of the dream by attempting to qualify the information using a scientific lens. Cooperman references “psychiatrists,” and the “subconscious” mind to appeal to the scientifically bent listeners even if dream interpretation is considered more of pseudoscience.¹⁰ In this statement Cooperman also asserts that dreams “inform” the mind of “what it knows,” implying that the dream is not pure imagination but echoes of past memories trying to break through his confused brain. Cooperman views his dream as a reflection of his lived experience of the past and, as a result, implies that the dream should be taken as his own eye-witness statement. Cooperman charges boldly ahead, relaying the details of his recurring dream to the crowd and placing special emphasis on the part where he is hit in the head during the train wreck with a

¹⁰ In *An Introduction to the Detective Story*, Leroy Lad Panek explains that much detective fiction written after the second world war seriously reconsidered their views concerning the brain and memory function. Unlike the detective figures of the past like Sherlock Holmes or Hercule Poirot who seem to have superhuman cognitive capabilities, Panek explains that later writers come to the realization that “the brain was not a machine and thinking was not a mechanical procedure. Freud, bio-chemistry, and research into the process of creation all suggest mechanical analogies for thinking are, on the whole, very bad ones,” and as a result, detective figures start to rely more on their subconscious for insight into the solution of their mysteries (191). Cooperman’s reliance on the subconscious is reminiscent of this trend while still being cognizant of how it is viewed by the largely scientific community to which he is presenting.

piece of Samsonite luggage. Several of the audience members scoff at Cooperman's dream as credible evidence and one even exclaims, "'This is beginning to sound like a movie from the nineteen fifties,'" (219) and asking, "'Do you mean us to take this seriously?'" (220). As he expected, the audience has a difficult time accepting the dream as acceptable evidence of Dr. Samson guilt, but Cooperman implores them to consider Samson's earlier reaction to the mounting evidence against him before the dream was presented, "We have all seen how he walked out of here: defiant and unpenitent" (220). Dr. Samson's reaction is what causes the audience to reconsider Cooperman's dream and what ultimately leads to the police tailing Dr. Samson, finding the kidnapped Steve Mapesbury, and closing the case. Cooperman's dream sequence may not have led to an immediate arrest, but it does result in the final actions that eventually solve the crime and put the mystery to rest. Cooperman's subjective, non-scientific information coupled with Dr. Samson's physical reaction unravel the mystery, demonstrating that while the hard facts were able to carry Cooperman to great lengths in the mystery, it was a humanistic, highly subjective approach that drove the case to completion. Because the novel places the criminal mystery on the same plane of importance as the mysteries of the human mind and memory, I argue that Cooperman's blended approach to the criminal mystery lends credence to the methodologies appropriately suited to investigate memory. Scientific inquiry and the objectivity-driven methodologies it presents lend valuable information about how memory operates, but just as the dream sequence was indicative of Cooperman's lost memory traces, the novel leaves the door open for the opportunity to utilize an approach that blends the aspects of science, investigation, and literature to usher in new discoveries and as Cooperman elegantly puts it, to reveal "new information that wasn't visible before" (209).

CONCLUSION

Memory Book both acts as a literary intercessor for the hard sciences and performs literary intervention that validates the claims the humanities must study memory and cognition. Before the novel can navigate this space of intercession and intervention, it must first create an environment of engagement and transdisciplinarity by priming its readers for these interactions. The novel accomplishes this through its paratext and the ways in which it grooms the reader for cross-fertilization between the sciences and the real world. The front cover visually prepares readers for this collision by conflating its author and protagonist, and gesturing toward the involvement of a medical doctor as an important part of this interplay. Similarly, the placement and exposition of the author biographies suggest the importance of a merger between these disparate perspectives and the necessity the novel fills by not only presenting, but coherently interweaving these approaches. Finally, Oliver Sacks' Afterword completes the paratextual nod to literary intercession and intervention through its structural setup in the form of a science experiment, its translation of scientific jargon, and its telling of Howard Engel's cognitive disruption in both neuroscientific and layman's terms. The various elements of *Memory Book's* paratext work in unison to construct a space where the scientific and humanistic can converge and intermingle through acts of translation, dissemination, and new knowledge production about human memory.

Once primed for the collision of the two realms, Engel uses *Memory Book's* narrative structure and plot devices to demarcate moments of literary intercession and intervention. For example, as I demonstrated throughout the chapter, Engel disrupts the traditional crime fiction narrative pacing as a means of highlighting the realities of cognitive deficits and the healing process; and he points to various medical characters such as the doctors, nurses, and social

worker to help translate complicated medical terminology and diagnoses to Cooperman and the reader. Even Cooperman himself acts as an intercessor for non-medical characters like Boyd and Sykes to express the medical realities of his situation and explain the limitations of his memory and general cognitive function. The various elements of the novel's setting also create a narrative environment for intercession as the hospital is compared with the outside world to show how its processes, perspectives, and methodologies differ from those held by outsiders of the medical and scientific communities. Engel emphasizes the role of literature in translating and disseminating scientific knowledge to the readers, but as much as it accentuates scientific strengths, it also shines a light on its limitations. In this way, the novel also presents literary approaches to the conception of memory and cognition by intervening and supplying a blended, transdisciplinary path forward. This literary intervention is at work through the elements of the paratext, narrative structure, and plot devices such as the characters and setting as this chapter has shown; however, it is most apparent in *Memory Book*'s conclusion and its unusual denouement moment where it makes its biggest intervention by utilizing a blended approach in solving its criminal mystery. The denouement offers readers a way forward not only in the narrative, but also in their personal understanding and ongoing conceptualization of memory, advocating for the legitimate presence of literary studies in memory conception. By blending the hard, scientific facts of the case with the highly subjective interpretation of his dream, Cooperman opens the door for a transdisciplinary approach that the final chapter of this dissertation will discuss in detail. Transdisciplinary collaboration is used to solve the criminal mystery and because the crime and Cooperman's memory issues are elevated to the same plane of importance in the novel, Engel is making a broader claim that the methodology used to unravel one mystery, can and should be applied to the other. This chapter elucidates the ways

that literature, and crime fiction specifically, both intercedes for the sciences, but also intervenes in the study of memory to construct a methodology that at first glance appear at odds with one another. Upon further inspection, however, this blended approach reveals more complex, meaningful, and directly applicable interpretations of the human mind.

CHAPTER 3: THE POWER OF LIVED EXPERIENCE

The previous chapter explored the ways that *Memory Book* both intercedes on behalf of the cognitive sciences to translate and disseminate popular theories about memory and cognition, and intervenes to propose a transdisciplinary approach to the field of memory studies. Engel's novel works toward this cooperative model not by discrediting or bypassing the value and practical use of the hard sciences, but by illuminating its limitations and suggesting ways to move forward by blending cognitive science and literature. Evidenced by the previous chapter, the unraveling of the criminal mystery occurs when Benny Cooperman approaches the problem using a mix of logical, objective fact; and subjective dream interpretation, and personal reaction. Arguing for a blended approach to issues of memory is intriguing, but ambiguous, thus in this chapter I will explicate the particulars of literature's contribution to the study of memory as demonstrated through *Memory Book*—focusing on the ways Engel imbibes his novel with elements of lived experience by writing an intimately autobiographical narrative and creating a work of superfiction.

Before launching into the specifics of how Engel's text utilizes lived experience and contributes to cognitive study, it is important to first define "lived experience" and explain how it is inaccessible to the sciences, but crucial to understanding memory. In his chapter, "Symptoms of Discursivity: Experience, Memory, and Trauma," Ernst Van Alphen defines lived experience when he explains that it is, "something subjects have, rather than do; experiences are direct, unmediated, subjectively lived accounts of reality. They are not traces of reality, but rather part of life itself" (24). Van Alphen's definition of human experience as "unmediated" and a "subjectively lived account of reality" defies the very basis of scientific inquiry which is cultivated by fabricated experiences and experimental controls. Lived experience comprises

reality and provides the basis for memory creation and recall. Without these experiences there exists no material for the creation of memories or even the basic need for memory itself. Van Alphen further complicates the idea of human experience—carving a deeper divide between scientific and humanistic approaches to memory—by suggesting that lived experience hinges on the concept of discourse because “forms of experience do not just depend on the event or history that is being experienced, but also on the discourse in which the event is expressed/thought/conceptualized” (24). Experience encompasses not only the events that happen to or influence an individual, but the way in which a person talks about and recounts those events to themselves and others. The narrative constructed around these experiences is the glue that cements memory in the mind and allows it to reemerge in coherent, logical forms. Discourse constructs narrative around experience and allows individuals to both create and interpret meaning through the evocation of memory. Lived experience, therefore, is culturally mediated, highly subjective, and relies on discourse for interpretation and meaning-making—all elements that the sciences are unable to recreate and study simply by the nature of their methodology.

Subjectivity and discourse are difficult elements to study from a purely scientific approach because these aspects are unstable and difficult to control. Scientific methodology depends on independent/dependent variables to establish repetitive results that form a pattern and either prove or disprove a given hypothesis. This type of process is certainly helpful when researching or observing certain aspects of memory or cognitive function such as mapping brain regions responsible for specific types of memory encoding or recall or determining the type and amount of information individuals can store in given amount of time; but these methodologies become far less helpful when trying to examine authentic, natural memory as it occurs in

everyday life and under real-world circumstances. Hermann Ebbinghaus—the father of experimental psychology and experimental approaches to the study of memory—addresses these inherent shortcomings of the hard sciences when he writes:

Two fundamental difficulties arise in the way of the application of the so-called Natural Science Method to the examination of physical processes:

(1) The constant flux and caprice of mental events do not admit of the establishment of stable experimental conditions.

(2) Physical processes offer no means for measurement or enumeration. (19)

Ebbinghaus juxtaposes the scientific method with the study of mental states, arguing that the very nature of the mind as an evolving and capricious entity presents difficulties with regards to the stability needed for accurate experimentation. Because memory formation and recall are so closely tied to lived experience and discourse, and the sciences struggle to study physical processes that are in “constant flux” and defy “stable experimental conditions,” complications arise in studying memory through purely a neuroscientific lens. Ebbinghaus’s second statement further suggests that there are some human traits that do not lend themselves to “measurement or enumeration” and, as a result, can never be scientifically studied. In its search for objective truth the sciences can only capture one side of human memory because it is forced to study it as an object in a controlled environment rather than an entity constantly reformulating in response to the outside world.

Texts of amnesia like *Memory Book* not only add the elements of lived experience and discourse back into the study of the human mind, but they also emphasize their vital importance in capturing a more holistic picture of memory and cognition. *Memory Book* and crime fiction texts that accentuate extreme cases of amnesia recognize that separating the concept of memory

from authentic, lived experience contradicts the way that memories are formed, stored, and interpreted when recalled. Van Alphen elaborates on this point, writing:

We experience events not as isolated happenings, and happenings cannot be experienced in isolation. Events always have a prehistory, and they are themselves again the prehistory of events that are still going to happen. I do not suggest that this continuity is present in reality. Reality is rather a discontinuous chaos. It is, however, the form in which we experience and represent events that turns events into a continuous sequence. We experience events from the perspective of narrative frameworks in terms of which these events can be understood as meaningful. (33)

Van Alphen denies any approach that observes and studies the human experience in isolation. To do so is to strip away what makes humans real people and to deny them of the complex, constantly evolving “prehistory” that comprises life and creates individuality. Van Alphen also suggests that reality lacks continuity and is a “discontinuous chaos,” that defies scientific methodologies reliant on isolation and control. Instead, he suggests that “narrative frameworks” are the best tool for establishing meaningful interpretations of the past. How an individual experiences an event impacts how that memory is processed, recalled, and categorized within a larger framework of an individual’s life and worldview. This perspective on lived experience illustrates that to study memory and understand how it is formed and translated, there must also be an attempt to observe it within the realm of the real world and in terms of its larger narrative structure and interpretation.

Before transitioning to focus on Engel’s novel, I want to take a moment and address a potential counterargument to the entire premise of my chapter. Crime fiction is exactly that—fiction—and one could reasonably make the argument that exploring lived experience within the realm of fiction and narrative construction is no different from, and even less reliable than, the scientific approaches to the study of memory. In constructing an imagined world around the concept of memory, how is literature any different from the contrived isolation and strict controls

of the scientific laboratory? Is the fictive narrative used to talk about memory merely an idealistic approach that has no real-world transference? While these are valid questions and important observations about the use and translatability of literary perspectives on memory, what makes Engel's text so unique is its autobiographical nature and the way that the author infuses the narrative not with imagined scenarios and characters, but the ones he himself experienced following his stroke. Engel's novel is not simply a work of creative fiction that relies on cognitive research or observation to construct its narrative world, it is a re-telling of Engel's own lived experience, making *Memory Book* a work of superfiction¹ and uniquely situated to address issues of memory and cognition from a privileged perspective.

INTERTEXTUALITY: MEMOIR MEETS *MEMORY BOOK*

In previous chapters I started my investigation of the novel by analyzing its paratextual elements. I deviate from this structure now to signal the importance of Engel's memoir as a crucial entry

¹ What I am calling "superfiction" refers to a work of fiction, like *Memory Book*, that intentionally blurs the boundaries between reality and fiction by enhancing the text with elements from the author's lived experience. I use this term instead of "autofiction," which was developed in 1977 by Serge Doubrovsky to refer to his text, *Fils*. Autofiction, or autobiographical fiction, complicates genre classification and raises epistemological questions regarding subjectivity, making the genre a polarizing one for many literary critics. Works of autofiction are usually identified by a narrator/protagonist that has the same name as the author and who uses the narrative to explore issues of self. For more on autofiction, see Claudia Gronemann's chapter entitled, "Autofiction" from *Handbook of Autobiography/Autofiction* and Brooke Warner's short piece, "Autofiction: What It Is and What It Isn't."

Conversely, I use the term superfiction to describe how Engel's novel elevates cognitive and memory issues by including intimate details and ideas from his own experiences following stroke. This narratological move establishes an extreme blurring of the boundary between reality and fiction while also constructing a hyper-privileged narrative that provides access to the lived experiences of its author. In creating a work of superfiction Engel identifies narrative as the ideal site for complex explorations of memory loss/dysfunction and cognition.

point for understanding how *Memory Book* is infused with authenticity through the lived experience of its author. In an earlier chapter I turned to the memoir as a means of highlighting Engel's personal retelling of his experience with stroke, the resulting complications, and the ways that he learned to cope with his cognitive deficits. I return to it now to emphasize the ways it overtly traces the connections between Engel's real life and the narrative he constructs for Benny Cooperman. In his memoir Engel not only directly references the writing of the novel and the impact his personal experience had on its creation, but he also intentionally creates parallels between himself and his characters by transcribing portions of his memoir *into* the novel nearly word-for-word. Read in tandem, the memoir and the novel become mirrors of one another, shining light onto the complexities of memory function and cognitive impairment.

In his memoir Engel constructs and repeatedly reinforces an inextricable link between his personal experiences following stroke and the narrative he fashions in *Memory Book*. In so doing, Engel intentionally connects the memoir and novel. The first example appears right away in the memoir's introduction:

This book [the memoir] is about the road back. About how I coped, the people who helped me along the way and how I found my road back into the mysteries of what reading and writing are all about. It's a success story, in a way, because at the end of this story I am writing again. Not only that, but I have had another Benny Cooperman book published. It [*Memory Book*] is a story with palpable commercial possibilities, but that is not the reason I wrote it. For me it is much more important to look back and remember all the steps that got me where I am. I need to know that so I won't forget that there was a struggle along the way and that there was a small army of people who helped me climb all those steps. (Introduction)

In this passage Engel notes that his memoir narrates the "road back" following his stroke and how this road eventually restored his ability to write and produce another Benny Cooperman novel. Even though Engel launches into a discussion of the significance of *Memory Book* in the latter half of this passage, it is important to recognize that Engel himself sees his personal

experience with cognitive disruption as a driving factor in creating his novel. Engel considers his real-life story and the narrative he creates in *Memory Book* as synonymous and interconnected. Engel writes that the novel is more than a commercial endeavor and alludes to the reason he wrote it when he says, “For me it is much more important to look back and remember all the steps that got me where I am,” so that he “won’t forget” the struggle or the people that helped him work through his deficits. Engel’s emphasis on looking back, remembering, and not forgetting signal the prevalence of memory issues in Engel’s real life and in the story he composes. Using this language to describe his Benny Cooperman story also suggests a sense of autobiography and cathartic journaling. Engel is not crafting a tall tale of memory loss and cognitive dissonance for his protagonist, but he is using real memories, real characters, and real experiences to construct *Memory Book* from the material of his own life. He overtly makes these connections between reality and “fiction” to establish a link between his personal experiences with memory and cognition, and Benny Cooperman’s.

The relationship between the author’s lived experience and his novel is further buttressed later in the memoir when Engel addresses how he began writing *Memory Book*. Following his stroke and during his time in the rehabilitation hospital, Engel shares that he spent a considerable amount of time observing and trying to record as much as he could manage amidst his struggle with alexia sine agraphia. Because memory and the reading/writing dynamic were so challenging for Engel, he relied on what he already knew to help craft Cooperman’s story. For example, early in his memoir he admits that the inspiration for Cooperman’s hometown is modeled after his own —St. Catharines—because it is the “place I knew best” (22). Even though some changes were made to throw readers off the scent in *Memory Book*, Engel confesses that he “kept the place mostly like the original” with only minor changes to street names (22). In terms of the

setting and overarching plot of the novel, Engel relied on the “hundreds of details of hospital life.” (110) He explains his approach in more detail when he writes:

I drew from my time both in Mount Sinai and in the Rehab. I adapted the people I knew into fictional characters. I tried to recreate my own awakening consciousness as I was acquainted with its changes from day to day. I tried to recreate the lapses of memory as they affected me back then, and still to a lesser degree afflict me today. I began meditating on the underbelly of the plot that would bring about these changes in Benny Cooperman and also serve to form an acceptable story line. (110)

Engel’s use of the phrases, “drew from,” “adapted,” and the repetition of the line, “I tried to recreate” highlight that his inspiration for the novel is taken from his own experiences in the hospital and rehab following his stroke. Engel does not have to rely on any external research to infuse Cooperman’s story with authenticity or ethos because everything that he relates about the cognitive realm is directly influenced by his first-hand experience. Engel recreates the hospital setting both in his descriptions and by crafting characters in the novel that are inspired by “people I knew,” but he goes a step further by pointing specifically to cognition in this passage, emphasizing the fact that he intentionally models Cooperman’s deficits after his “own awakening consciousness,” and his ongoing struggle with repeated “lapses in memory.” Unlike his other Benny Cooperman novels that might include settings or characters that parallel Engel’s personal reality, *Memory Book* gives readers a first-hand account of the author’s mind and cognition. Engel thoughtfully incorporates intimate parallels between himself and Benny Cooperman, conflating his own experience with his protagonists and crafting a novel that reads more as a memoir than a work of fiction. The memoir overlays Engel’s life with his protagonist’s, inviting readers to see Engel in and through Cooperman and vice versa. In doing so, Benny Cooperman’s story is injected with an element of lived experience and a “reality effect” that elevates the novel to the level of superfiction and allows for critical investigations of memory and cognition.

Although his memoir cannot explicitly be considered an aspect of the novel's paratext, Gérard Genette qualifies certain factual elements that exist outside of a particular text as part of the larger paratext. He defines these factual elements as ones that exist either within the paratext, or as facts "whose existence alone, if known to the public, provides some commentary on the text and influences how the text is received" (7). Genette goes on to assert that age, sex, and sexuality are all examples of this type of information because they invariably impact how a reader experiences and interprets a text. For example, a text written by a woman—especially in certain historical, cultural, and sociopolitical contexts—is received, read, and interpreted differently than one written by a man. Similarly, Genette points to personal aspects of an author's identity or experience as an important part of this factual paratext that dictates readers' engagement with a text.² The connections established in Engel's memoir coupled with the fact that his cognitive impairment was covered widely by media and the scientific communities makes his stroke a part of the factual elements surrounding the paratext of *Memory Book*. Once readers are aware of this information it becomes impossible for them to interact and interpret the novel in the same way as if they had never known this information. As I will demonstrate in the following section, even readers who are unaware of the factual aura are provided important signals about this information because of how the novel's paratext is constructed.

THE PARATEXT: A VANISHING BOUNDARY

As I demonstrated in the previous chapters, *Memory Book*'s paratext plays a crucial role in constructing an environment that shifts the focus of the novel inward toward the mind and

² As an example, Genette references Proust's part-Jewish ancestry and homosexuality as something that informs their reading of *A la recherche du Temps perdu*, writing, "I'm not saying people must know those facts; I am saying only that people who do know them read Proust's work differently from people who do not" (8).

encourages unique conversations about memory and cognition. Just as the paratext helped situate memory at the center of the novel in chapter 1, and then created a space for collaboration and exchange between the sciences and literature in chapter 2, the paratext once again plays a crucial role by informing readers of the narrative's intimate connection to lived experience and reality. While all readers may not be aware of Engel's personal history, different elements of the paratext draw attention to these facts, creating the factual aura that Genette theorizes. In previous chapters I have pointed to the front and back covers, author biographies, Afterword, and other elements to draw certain conclusions and I return to many of those same elements in making a connection between the actual text of the novel and its author. Genette states that "A title, a dedication or inscription, a preface, an interview can have several purposes at once," and I mean to emphasize this duality as I walk through many of the same paratextual elements I have discussed in previous chapters but point to their varied interpretations and purposes.

The Front Cover. Tracing the connections between *Memory Book's* narrative and the lived experience of its author is a cooperative endeavor on the part of the paratext because several elements work together to accentuate the contextual reality of the narrative. The front cover, for example, is one of the most influential aspects of the novel's paratext because it is commonly the first thing that catches readers' attention and provides an initial impression of what lies within (see figure 7).

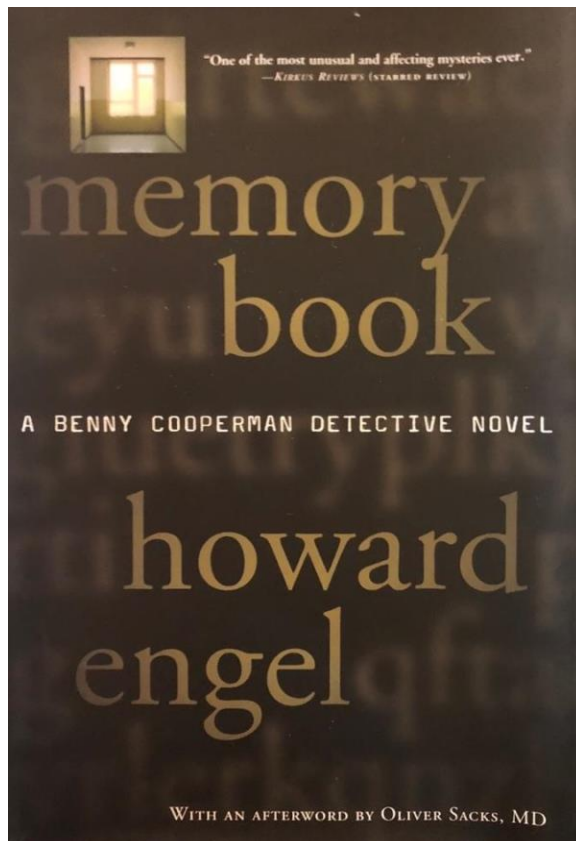


Figure 7: Memory Book cover, hardcover 2006 version.

In chapter 1 I argued that the coloring, font style, and mention of Oliver Sacks' Afterword highlight the serious tone of the text and the medically endorsed discussion of memory and cognition. I return once again to the coloring and font, but this time to emphasize the mirroring effect it creates between Engel's lived experience and the narrative he crafts. The placement of the title and author's name on either side of the dividing line created by the phrase, "A Benny Cooperman Detective Novel" crafts a visual relationship between the text and the author. This mirroring effect gives readers a sense that what happens in the story reflects Engel's own experience following his stroke. Engel's choice in title also directly mirrors his own experience using a memory book as an important memory aid during his rehabilitation, so even in the selected title, Engel is evoking his personal experience with memory and cognition. I also

pointed in chapter 1 to the blurred letters in the background as an indicator of the alexia sine agraphia and the inability to read, but I want to complicate this detail further by suggesting that it represents a larger metacognitive blurring between reality and fiction that Engel's novel evokes. Lastly, the small cover image was mentioned in an earlier chapter to suggest that the novel would take place in a hospital setting and that the hospital corridor with the multi-paned window symbolized multiple views of memory and cognition that would be presented throughout the text. I mention the image at this point, however, to suggest that the image can be read as a window into Engel's own experience through his unique authorial perspective. Even the visual presentation of the image—a small picture emerging from a black background—gives readers the sense that they are being asked to abandon their own vision and view the narrative through someone else's eyes, namely Engel's. These textual and visual elements of the front cover echo the sentiment of Engel's memoir by showing the correlation between his real-life experiences following his stroke and the narrative constructed in the novel around Benny Cooperman.

The Spine. Working in tandem with the front cover, the novel's spine recreates similar visual representations of the blurred boundary between fiction and reality. An interesting aspect about the novel's spine is that even though it replicates many aspects of the front cover to near exactness, it makes slight revisions that further reinforce the relationship between the lived experience of its author and the narrative he constructs (see figure 8).



Figure 8: Memory Book spine, hardcover 2006 version.

For example, the cover image reappears on the spine but instead of being placed on the periphery, it is positioned directly in the middle of text with, “howard engel” placed above, and “memory book” below in the same style and color font. This detail suggests that the author comes first and it allows readers to double read the title as Engel’s own memory book of his experience. The change in the position of the image on the novel’s spine is significant because it places Engel’s experience and perspective on memory and cognition at the center of the text. Both the author’s life and the narrative he creates is constructed through this unique, authentic

experience having intimately dealt with cognitive disruption and amnesia. Furthermore, the positioning and font style and color replication of the author and title elements reproduces once again the mirroring effect of the front cover, buttressing the permeable boundary between fiction and reality through paratextual signaling. One important difference to note, however, is that unlike the cover which places the novel's title above the author's name, the spine inverts this order and places Howard Engel's name above the title. The inverted order on the spine can be interpreted as the interchangeable nature of the narrative in the novel and the author due to their close, reciprocal relationship. In other words, the novel reflects Engel and vice versa.

The Reviews. While the front cover and spine visually sketch a relationship between the author and his text to infuse the narrative with lived experience, the reviews on the back cover substantiate these connections. The back cover is full of reviews praising *Memory Book's* "full-bodied characters, sharp dialogue, and rich humor,"³ and Engel's keen ability to "bring a character to life in a few lines."⁴ One review is even taken from Sacks' Afterword, lauding Engel's capacity to compose, revise, and redraft an entire novel "without being able to read."⁵ Of the reviews included on the novel's back cover two in particular directly reference Engel's personal connection to the text and are of particular interest:

"The past twenty years have seen plenty of detectives with disabilities. Engel, one of the few writers to share the same challenges as his sleuth, has produced one of the most unusual and affecting mysteries ever"

—Kirkus Reviews (Starred Review)

"A slick mystery, but also a terrific recovery tale"

—Toronto Globe and Mail

³ From a review by Booklist

⁴ From a review written by Ruth Rendell

⁵ From the Afterword written by Oliver Sacks, MD

The first review marks the protagonist detective as unique, not just because he belongs to the category of “detectives with disabilities,” but more specifically because Engel “share[s] the same challenges as his sleuth.” Despite the reader’s pre-existing knowledge about the author, this review blatantly gestures toward the author’s personal experience with disability. Because the previous sentence in the review relates to the detective figure and the next sentence is about the author, readers are meant to make a connection not only between Engel and the story, but the author and the detective directly. Similarly, in the second review *Toronto Globe and Mail* connects Engel’s *fictional* narrative to his real-life experience by stating that the text not only represents a “slick mystery,” but a “terrific recovery tale.” This second review could be interpreted as relating exclusively to the narrative and the detective’s recovery, however, the ordering of the reviews on the back cover suggests that this statement references more than the protagonist’s recovery journey (see figure 9).

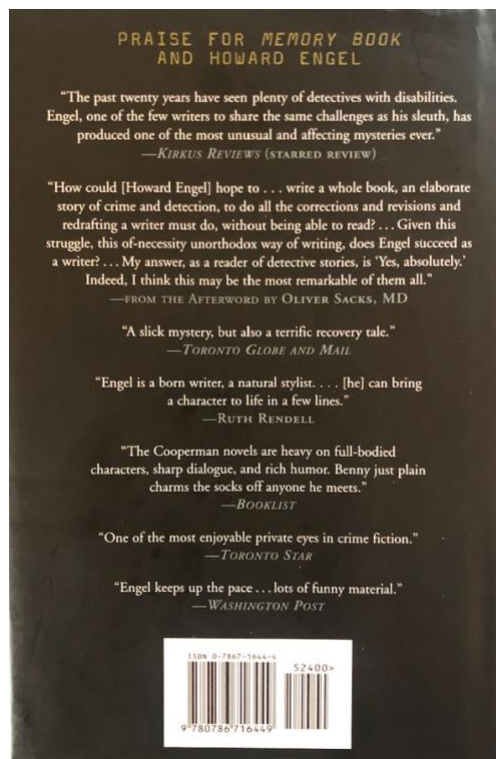


Figure 9: *Memory Book* back cover, hardcover 2006 version.

As figure 9 shows, the first and second reviews on the back cover are from Kirkus Reviews and Oliver Sacks, respectively. Both reviews make explicit reference to Engel's experience with disability and the ties he has to the novel's narrative, creating a context that supports an interpretation of the third review by Toronto Globe and Mail as relating not just to the detective's road toward recovery, but to Engel's own "terrific recovery tale." While the front cover and spine symbolically place Engel's lived experience at the center of his novel, the novel's reviews overtly state the relationship between author/protagonist and reality/fiction, shoring up any lingering doubts readers may have about how *Memory Book* obscures the threshold between narrative fiction and real life.

The Dedication and Acknowledgments. Engel's dedication and acknowledgements are also important aspects of the novel's paratext because they signal the important relationship between his experience after stroke and the composition of *Memory Book*. Of dedications, Genette writes, "The dedication always is a matter of demonstration, ostentation, exhibition: it proclaims a relationship, whether intellectual or personal, actual or symbolic, and this proclamation is always at the service of the work, as a reason for elevating the work's standing or as a theme for commentary" (135). Other than establishing a relationship external to the text, he also suggests that the dedication not only invokes the participation of the dedicatee, but draws the reader into the act of dedication because it is "always intended for at least two addressees," the dedicatee and the reader. Genette sees the dedication as a "performative act" that the reader is "called on to witness" through a public demonstration of the relationship between either author/dedicatee or text/dedicatee (134). The dedication in *Memory Book* states, "This work is for Cathy Nelson," Engel's nurse at the rehabilitation hospital and the inspiration for the character "Rhymes With" (Nurse McKay) in the novel. As Genette suggests, Engel's dedication to Cathy Nelson

“proclaims a relationship” that represents both a personal and symbolic bond between the events, people, and conceptions of the human mind that Engel presents in his text. In other words, by dedicating the novel to his nurse, Engel proclaims and makes readers witness the real-life relationship between his novel’s subject matter and his own cognitive disruption and recovery.

Furthermore, at the end of the novel in the Acknowledgements section Engel writes, “In writing this book, after my illness of a couple of years ago, I’ve tried to show what the changes in perceptions and cognition are like as seen from ‘this side’” (237). Engel again links his text to his personal experience with illness, saying that he is using the narrative to shed light on his personal perspective on cognition. In this statement Engel is both buttressing the reciprocity between his text and his life and arguing for a personal approach to issues of the human mind. With each of the paratextual elements mentioned thus far readers are encouraged to infer and interpret meaning from stylistics, images, and reviews provided by others, but in the dedication and acknowledgements the author himself steps in and solidifies the relationship between the novel and lived experience. Engel wants readers to engage with his novel as an extension of his personal experience, and thus as a work of superfiction, to critically interact with the narrative and its ongoing conceptions of the human mind and memory.

The Afterword. The final element of the novel’s paratext that I want to touch on is Oliver Sacks’ Afterword and how it draws readers into the factual context of Engel’s experience to add credibility and lived experience to the narrative. In the previous chapter I discussed how the Afterword operates as an environment for literary intercession and intervention through its structure and use of medical jargon. While Sacks does use the Afterword to theorize and explain Engel’s cognitive condition and the importance of creativity in bypassing deficits, this is also the

only element of the paratext that directly references and narrates Engel's story. Sacks relays a detailed summary of Engel's experience, making it nigh impossible for readers to ignore the factual context surrounding the Benny Cooperman story that unfolds in *Memory Book*. In telling Engel's story, Sacks directly links Engel to the novel, solidifying the other paratextual attempts up to this point. Sacks' retelling of Engel's story in the Afterword is interesting because it privileges lived experience implicitly over scientific methods of conceptualizing cognition. He writes:

Engel's weeks in the rehabilitation hospital thus proved to be a neurological revelation as to how the mind works and how seemingly automatic processes can fall apart and have to be reconstructed in other ways. It was a very rich human experience as well, and Engel, indefatigably curious, and with his novelist's eye and ear fully intact, got to know his nurses and his fellow patients, their feelings about illness, their idiosyncrasies, and the intricacies of their lives. Being a patient, experiencing and observing the whole atmosphere of hospital life, stimulated Engel's imagination, and it was at this point that the idea of a new book came to him, one in which his alter ego, Benny Cooperman, would be a patient. (243)

This passage carries a heavy burden not only in making connections between Engel and the novel, but in constructing a bridge between literature and the unique capacity of a writer to engage in issues related to memory and cognition. Sacks establishes the connection between Engel and Cooperman by calling the novel's protagonist Engel's "alter ego." He also points to Engel's time in the rehabilitation hospital as the inspiration for the novel, citing his observations, "nurses and his fellow patients," and the specificities of hospital life as key components of the narrative Engel composes in *Memory Book*. The time spent in the rehabilitation hospital does not just provide Engel with inspiration for his novel; Sacks suggests that this experience "proved to be a neurological revelation to how the mind works."

While this statement could be scientifically coded to suggest that Engel's time couched in the medical and scientific realms was beneficial in educating him about cognitive function, Sacks

adds that after cognitive function has fallen apart it must be “reconstructed in other ways,” hinting back to earlier moments in the Afterword where other patients are cited for adapting to their new cognitive realities through acts of creativity. Sacks further qualifies this neurological revelation by stating that this was a “very rich human experience,” falling back not on the sciences or medicine, but on the humanistic elements of Engel’s experience which include, “experiencing and observing the whole atmosphere of hospital life.” Sacks also points to Engel’s “imagination,” his “novelist’s eye and ear,” and his “indefatigably curious” approach to his situation as being central to his ability to conceptualize cognition and recreate his perspective through his protagonist. In this passage Sacks reinforces the connection between author and text and demonstrates that as a writer, Engel is specially equipped with tools to infuse elements of his own lived experience into his text and to further expose the complexities of memory and cognition in the process.

Sacks ends his Afterword by making one final attempt to link the novel with the real, lived experience of its author. Before closing, Sacks points to several recent crime fiction texts that have made medical or neurological themes their focus, but he asserts that amidst these recent trends Engel’s novel stands out as a unique example. He explains, “*Memory Book* has a unique depth and authenticity, because Howard Engel has known and traversed all that he writes about. He has, Bertrand Russel would say, ‘knowledge by experience,’ and no knowledge by description can ever match this” (248). Sacks suggests that what makes Engel’s novel so special is that Engel has “known and traversed all that he writes about,” pointing directly at the author’s lived experience not only as the driving force behind the narrative, but as the element that sets the novel apart from other crime texts focused on memory and cognition. In his last sentence Sacks borrows a phrase from Bertrand Russel to show that Engel’s situation is rare because he

has “‘knowledge by experience,’” as opposed to “knowledge by description.” This phrase can be interpreted on two planes. First, if interpreted from a literary perspective it claims that Engel’s experience elevates the novel above any other narrative depicting cognition precisely because of his lived experience. On another level, because Sacks is writing this and is referencing an important figure in the scientific community—Russel—it suggests that Engel’s experience, and concurrently his narrative, enriches the study and conception of cognition because of its positionality within authentic lived reality. While scientific approaches to memory and issues of cognition can only be observed and studied within certain controlled contexts, Engel’s perspective on the mind and memory come from a place of personal, lived experience that transcends the boundaries of fiction.

The paratextual elements of *Memory Book* work together to establish a blurred and often fluid boundary between reality and fiction, opening the door for the narrative to be infused with lived experience and read as a text of superfiction with unique literary insights on human memory and cognition. Gérard Genette supports this view of paratext because he sees it as “More than a boundary or a sealed border” (1) and more as “a *threshold*. . . . a ‘vestibule’ that offers the world at large the possibility of either stepping into or turning back” (2). For Genette the paratext is an “‘undefined zone’ between the inside and the outside, a zone without any hard and fast boundary on either the inward side (turned toward the text) or the outward side (turned toward the world’s discourse about the text),” so rather than operating as a simple accoutrement to the narrative, the paratext allows readers cross uninhibited between the worlds of narrative fiction and reality (2). I argue that *Memory Book*’s paratext is one of the purest forms of this type of threshold because it not only allows readers to vacillate between fiction and reality, but it seamlessly bleeds the two worlds together so that the boundary becomes increasingly more

imperceptible with each layer of paratext. So much of Engel's personal experience informs the narrative that even if readers are unaware of the factual context surrounding the author's cognitive struggles, the paratext does the work of building and reinforcing these correlations. The paratext lays the groundwork for reading Benny Cooperman's story as much more than fiction, because through the protagonist, Engel's own mind seems to have been laid bare for readers to interpret, analyze, and interrogate.

THE NOVEL: THE REALITY EFFECT OF FICTION

Memoir Collides with Memory Book. Engel's memoir and the novel's paratext do a good deal of heavy lifting to establish the novel as a work of superfiction. Within the text itself, however, there are definitive parallels between the narrative and the author's experience following stroke. One of the ways this is seen in the novel is through Engel's reliance on his own experiences in the rehabilitation center as inspiration for the characters Benny Cooperman meets, the perceptions of memory and cognition he encounters, the tools he utilizes during his rehabilitation, and the ways in which he comes to terms with his new mind. Engel admits in his memoir to pulling from his reality to construct Benny Cooperman's and he does so in direct, overt ways like copying—nearly word-for-word—experiences that are relayed in his memoir into the pages of *Memory Book*. Table 4 establishes a side-by-side comparison between excerpts quoted directly from *Memory Book* and Engel's memoir.

Rows	Excerpt from <i>Memory Book</i>	Excerpt from <i>The Man Who Forgot How to Read</i>
1	"Among the most enthusiastic of the old-timers were the three Belgians, who had struck up quite a friendship since their strokes had flung them together... These three entertained one another and those nearby. . . with stories about the best meals they had eaten in the best restaurants around the globe" (63-64)	"...found myself eating with a group of men who were recovering from strokes that had brought them here from all over. Three at my table were originally from Belgium and loved to talk about the great restaurants they had dined at in Europe and Asia" (57).
2	"Dr. Ron Collins came by the next morning accompanied by three interns and an equal number of nurses. They came in tight formation, like a phalanx of warriors, shoulder to shoulder" (40).	"They moved with a phalanx of lesser beings—nurses and interns. 'Left, right, left' they came, in a no-nonsense formation, like soldiers being drilled on a parade ground" (37).
3	"I had my Memory Book beside me; I felt secure" (70).	"The memory book gave a lift to my sense of being in the driver's seat of my life" (65).
4	"Without my Memory Book with its notes, and lists of names, and even diagrams, I'd have been dead and buried. It gave me the courage to stand there, spouting" (211).	"The memory book returned a piece of myself to me" (64).
5	"Now, of course, it wasn't a matter of not remembering one name in a crowd. Now I could no longer remember <i>any</i> name. I was going to live in a world where friends, colleagues, and relatives looked their familiar selves, but their names were all crowded into the lock-up at the end of my tongue. An Oubliette, in more ways than one" (28).	"Now, and <u>for ever</u> afterwards, I could forget the names of my nearest and dearest. I could forget the names of familiar visitors to my sick room. I might remember the maiden name of my visitor's grandmother, but not the name of the visitor sitting by my bed" (44).

Table 4: Side-by-side comparisons of similar excerpts from Howard Engel's novel, *Memory Book*, and his memoir, *The Man Who Forgot How to Read*.

Table 4 (cont'd)

6	<p>“For a few minutes, I stared at the hospital across the street. The wing in which I had been born was being demolished. It was making way for a newer idea of what a progressive hospital wing should be. From my present location on the fifth floor, and with heavy traffic running between us night and day, it was hard to miss the significance or the irony. But what can I do about it? I thought my mind could no longer deal with subtle things like irony” (104).</p>	<p>“Outside my hospital window, the world looked reassuringly the same, although the hospital across the street, the one in which I’d been born, was being slowly demolished. I couldn’t fail to connect my presence here with what was going on over there. I saw the irony of that clearly enough” (45).</p>
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The comparisons highlighted in the table indicate the replication of Engel’s real experiences into the narrative he constructs around Benny Cooperman. Some of the excerpts, like the ones regarding the use of a memory book in rehabilitating cognitive deficits and memory loss (rows 3 and 4) are not word-for-word transcriptions but approximate many of the same sentiments. For example, in his memoir Engel suggests that the memory book helps restore a sense of agency by making him feel like he was back in the “driver’s seat” in his life, or that this tool helped return pieces of himself he felt he had lost following his stroke. As a comparison, Cooperman also finds that the use of his memory book restores some of his personal agency regarding his healthy and daily routine. He also relies on the memory book during the criminal investigation and denouement moment because it provides him with a sense of security and confidence.

Other passages indicated in the table like the ones listed in rows 1 and 2 point to specific people/characters and are closer to word-for-word transcriptions from the memoir to the novel. For example, in row 1 is a comparison between some of the patients Engel gets to know during his time spent at the rehabilitation hospital, and the ones Cooperman that becomes acquainted. As the excerpts show, both passages indicate the same number of men, that they are Belgian, that they are brought together because of stroke, and that they spend most of their time discussing

their international travels and dining experiences. Engel does not just draw from his personal experience; he replicates it in almost perfect word-for-word transcription. He even admits to this copy/paste approach in his memoir when he admits, “I found some of my characters almost ready-made in my memory” (119). The same approach is used in the example of the doctors in row 2 as both the novel and the memoir employ militaristic words and descriptions to paint a picture of the highest-ranking medical staff, the doctors. This is another example of replication, but to a more extreme extent because rather than duplicating characters, the descriptions of the doctors in the novel reflect Engel’s own lived perception of the medical staff and the scientific methodologies put in place to study and observe memory and cognition. In other words, in these moments of direct translation from memoir to novel, readers experience Engel’s own personal views and perceptions on these mental and social-medical processes.

If we read the similarities between Engel’s memoir and *Memory Book* as direct reflections of his own experience, perception, feelings, and ideas about memory and cognition, the remaining excerpts in Table 1 become quite interesting. The remaining excerpt comparisons in rows 5 and 6 relate specifically to personal experiences of memory loss and the necessity for crafting a new cognitive reality or understanding of the human mind. The passages in row 5 represent one of the many instances where memory fails both for Engel and Cooperman in the same situation. In both accounts, Engel highlights the difficulty of remembering names even when the individuals are “friends, colleagues, and relatives” (*Memory Book*) or “my nearest and dearest” (*The Man Who Forgot*). While these excerpts are the closest in terms of direct transcription from memoir to novel, they are not the only passages that exist in both texts that detail the specific struggles related to memory and recall for both individuals. Engel, for example, mentions his memory several times in his memoir as being “vague and confused” (35);

“out of sync, out of sequence” (36); “distorted” (45); “primitive” (54); and “worn thin” (73) to name a few; and readers experience many of these same memory traits in Cooperman with his memory that is “too scrambled to sort out” (7); “Jello-O that hasn’t set properly” (11); a “murky crystal ball” (124); or a “vague clot” (169). Finally, row 6 includes excerpts from the memoir and the novel that describe the demolition and reconstruction of an old hospital wing. As the analysis of this metaphor in chapter 2 uncovered, these excerpts reveal that amnesia necessitates the deconstruction of a previous reality, self, or way of understanding the human mind to make way for new, radically different ways of studying and understanding memory.

The excerpts from table 1 coupled with other descriptions of memory used in both texts show that Engel’s thoughts, feelings, and perception of the human mind shine through not only in his memoir, but through Benny Cooperman and the larger narrative at play in *Memory Book*. The comparisons listed in table 1 infuse the novel with the element of lived experience in two ways. First, they highlight the direct transcription of Engel’s experience onto the narrative he constructs in *Memory Book*, further buttressing the connections between author and protagonist that the paratextual elements set in motion. Second, the portions of the novel that are taken almost word-for-word from the memoir are important in their own right because they point to Engel’s personal commentary on issues of memory and cognition. In other words, Engel does not just replicate characters, settings, or mechanisms of memory recall; he delineates his personal feelings, reflections, and struggles in coming to grips with his new cognitive reality and forging a path to recovery. Readers do not have to guess at what these experiences are like for a person in the real world because Engel relays it in explicit terms. He enriches his narrative with the personal and, as such, the narrative transitions from being read purely as fiction and more as an experiment in narrativizing issues of memory and cognition from a humanistic perspective.

Memory, the Mystery that Remains. I have spent a great deal of time exposing the blurred boundaries between reality and fiction constructed through the intimate relationship between Engel and his novel to highlight how elements of lived experience shine through *Memory Book* and shed light on real issues concerning memory and cognition. While this is most definitely the case with the novel's paratext, and continues to be reflected within the narrative itself, I argue that this concept extends to the very genre of mystery fiction itself, especially postmodern crime fiction. In his book, *Anatomy of Murder: Mystery, Detective, and Crime Fiction*, Carl D. Malmgren crafts an argument around what he sees as the differences between the various iterations of the mystery fiction genre.⁶ Citing Patricia Highsmith's, *The Talented Mr. Ripley*, Malmgren suggests that the stories Thomas Ripley comes up with are "imagined so intensely that we readers come to believe them," and that Ripley's imagination is so spectacular that "it sometimes blurs the distinction between what has really happened and what has only been imagined" (152). Furthermore, Malmgren asserts that if a fictional character's imagination can confuse real readers about what is real and unreal, postmodern crime narratives like Highsmith's should undergo a metaliterary reading to see what other contributions they could make to the real world. His interpretation of Highsmith's work is telling:

...if someone—Highsmith, for instance—possesses enough imagination, she can real-ize acts of murder for us, in so doing making them so real that we begin to confuse the fictional and the factual, to forget that these crimes are unreal...Once the boundary has been erased, we become even more pliant partners in crime. This is what the best crime fiction aspires to do to us.

By blurring the line between fictional and factual, by calling into question narrative voice, and by dismantling the signifying systems that create voice and identity, crime fiction extends its investigation of selfhood and human motivation to include the

⁶ Malmgren differentiates mystery detective and crime fiction based on the types of detective figures and their modes of detection. For example, mystery fiction most closely aligns with golden age fiction and operates in a centered world where signification is fully intact. Crime fiction, on the other hand, is more aligned with postmodern narratives where the worlds in which they operate are decentered, chaotic, and lack any meaningful signification.

motivation of signs. Crime novels set in decentered worlds thus have a built-in tendency to become crime metafiction, examining the ground(s) of their own transmission. (152)

Malmgren's take on Highsmith's narrative is interesting because it signals specific characteristics of the author that make postmodern crime narratives able to extend beyond boundaries of fiction and reality. For example, Malmgren suggests that a writer must "possess enough imagination" so that readers "begin to confuse the fictional and the factual." As I have shown earlier in this chapter, Engel combines a mixture of his real-life experiences and imagination within his narrative to the point where readers could mistake moments in the novel for ones occurring in Engel's memoir. Furthermore, Malmgren goes on to tie the blurred boundaries between reality and fiction in the crime genre to a deliberate act by the author to make readers "pliant partners in crime," and to open the fictional narrative up to a real-life "investigation of selfhood and human motivation." Malmgren suggests that postmodern crime narratives not only dissolve the boundary between reality and fiction, but they also cause readers to deeply engage with the mysteries (whether criminal or cognitive) presented in the narrative and to probe their own engagement with the topics discussed in the text. For *Memory Book* those topics are memory, cognition function, and the epistemological avenues that Engel's novel clears by employing lived experience and imagination. While the context provided by Engel's memoir and the novel's own paratext work to blur boundaries, the very nature of the genre itself challenges readers to consider the real-world theories and implications of the cognitive issues these texts present.

Engel's novel explores memory loss and disruption from a first-hand perspective and with the intimate knowledge that cognitive deficits heal slowly and run the risk of never truly healing at all. Readers of crime fiction usually enter a narrative with the expectation that chaos will be resolved, or at least contained, but *Memory Book* resists this trend when it comes to

memory. Even though the denouement moment does the trick in rooting out the criminal, the narrative does not end with Dr. Samson behind bars or even the recovery of Dr. Mapesbury, the kidnapped biochemistry professor. Instead, the novel ends with Benny Cooperman attending the wedding of a woman who initially was the prime suspect in the criminal mystery. At this point, Cooperman has been out of the rehab hospital for a few weeks but his memory and cognitive function is still not resolved. Of his ongoing recovery Cooperman states that even though he is out of the hospital he still receives help from his girlfriend and from a “few Grantham-based social workers, who were concerned about my reading, my physical well-being, and whether or not I could cope making my bed and taking out the garbage” (231). In addition to the help he continually receives outside of the hospital, Cooperman says, “I still carried a Memory Book, but it had now shrunk to pocket-notebook size. It still kept track of my days and nights, reminded me about renewing my medications and other exciting things. In the grocery store I still sometimes mistook grapefruits for oranges, until I smelled or handled them” (231). Despite being released from the hospital, Cooperman’s story still involves memory mishaps, persisting issues with alexia sine agraphia, and complications that render daily activities difficult or confusing. At the end of the novel Cooperman is not cured and his memory remains largely a mystery, but this is precisely the point that I want to end this dissertation on because like real life, memory still belongs to the realm of mystery. *Memory Book* does not provide its own theories of memory or even attempt to solve the questions encircling memory and cognitive function. That is not the point of Engel’s novel or the point I wish to make in this dissertation. Rather, I argue that in placing memory at its center, revealing memory’s complexities, uncovering the limitations of scientific thought and methodology in studying the human mind, and presenting how literature

can infuse lived experience back into the conception of memory; *Memory Book* makes a critical intervention in the field of memory studies.

Rather than providing any closure or real theories on memory or cognitive function, *Memory Book* concludes with Cooperman musing about the nature of weddings and what they signify for the future. “Weddings,” Cooperman says, “are all about our best hopes for the future” (236). It is a strangely fitting close to a bizarre narrative about amnesia and human cognition. It is an ending that sees the hope in using collaborative, interdisciplinary approaches to studying, conceptualizing, and observing the human mind in getting closer to a more holistic, authentic grasp of human consciousness.

CONCLUSION

In this chapter I have tried to show the fluid, blurred, and at times invisible boundaries between reality and fiction that Howard Engel’s *Memory Book* constructs. Engel’s deeply personal experience with stroke informs every word of his novel and readers are meant to envision Benny Cooperman as Engel’s carbon copy when it comes to memory failures and cognitive struggle. This mirroring is not something readers passively construct through interpretation or close reading, but something Engel’s memoir and the novel’s own paratext incite and strengthen with each of its varying elements. The blurred boundaries between the novel and the real world invite readers to see the narrative as a work of superfiction precisely because it evokes the authenticity and ethos of the lived experiences of its author. As a result, the novel acts as an example of literary investments in cognitive science and memory studies. Quoting Heta Pyrhonen, Laura Marcus says that detective fiction ““serves as a kind of laboratory for testing various critical hypotheses and methodologies,”” and *Memory Book* does exactly this (245). *Memory Book* does

not present a theory of memory, but simply opens a space for literature within the larger field of memory studies by suggesting that approaching cognition through interdisciplinary methodologies is the best path forward. The novel deciphers its criminal mystery but purposely leaves the cognitive mystery unsolved, but I would argue that solving the human mind was never really the goal. Instead, the novel opens a door to cognition that no one even knew existed and tempts readers to walk through it and discover what lies beyond.

Texts of extreme cases of memory, like *Memory Book*, highlight popular scientific and philosophical theories of memory, but as Engel's novel also shows, the sciences can only elucidate a small portion of the greater mystery of memory and cognition. What many of the crime fiction narratives that have tried to breach topics of memory loss have failed to acknowledge is the complexities of the mind. Instead, they regurgitate popular scientific theories of memory that suit their fast-paced narratives and skim over the realities of memory rehabilitation for the sake of solving their criminal mysteries. *Memory Book* is different because it throws the traditional mystery fiction pacing out the window and takes the time to wallow in cognitive deficits, memory mishaps, and the real-life frustrations of memory loss and cognitive disruption. The novel's more realistic handling of these issues stems from Engel's own personal experience with memory loss and alexia sine graphia, and therefore, urges readers to reconsider the *how*, *what*, and *why* questions surrounding cognition rather than breezing by them without a single thought. Engel's novel does not discount the sciences, or try to paint over its importance, but instead highlights its shortcomings and suggests literature as a helpful companion to studying memory and cognition outside of the sterile, isolated environment of the laboratory and within the realm of lived experience.

CHAPTER 4: CONCLUSION

On February 23, 2020, I was up all night with what I thought was food poisoning or the stomach flu. I took a week or so off work expecting that things would pass and I would start feeling better, only I started feeling worse and my symptoms were becoming increasingly strange and severe. One day, to accomplish some work from home, a strange cloud of confusion overtook me and the words on my laptop started to swim across the screen. Was I having a panic attack? Experiencing a case of fever brain? Feeling like I was going to pass out at any moment, I dialed my mom on the phone and as I started explaining what was happening, I noticed something peculiar. I remember asking her, “Is my speech slurred?” and the feeling of terror when she replied, “Yes. Call an ambulance NOW.”

After visiting two separate emergency facilities, a CT scan, and stunted conversations with a variety of medical professionals, I was sent home with a prescription for anti-anxiety medication and orders to find ways of managing the common stresses of life as a graduate student. I should have felt better after leaving the doctors and getting a somewhat clean bill of health, but instead I felt frustrated, unheard, and wholly unlike myself. My speech never slurred again, but what doctors initially thought was a panic attack turned into an onslaught of compounding symptoms over the next month. My right arm started feeling numb and I found myself becoming increasingly inept: dropping eating utensils, running into door frames, clumsily throwing a football when I had been able to throw a spiral since elementary school. I experienced bouts of dizziness, a few tame hallucinations, and a darkly comic incident fumbling with my student ID card for ten minutes while trying to enter a gated parking lot at Michigan State University. I was also experiencing excruciating headaches that hindered my sleep and, when things were bad, I could hear the blood rushing through my veins with each heartbeat (a

phenomenon I later found was called a bruit, or vascular murmur). As time passed, my physical symptoms worsened and I started to develop cognitive ones as well. I was struggling to read and write and my handwriting and spelling started to resemble that of a preschooler. I was having difficulty speaking—not because my speech was impaired—but because I was losing my ability to form coherent thoughts and string together words fast enough to form a sentence before I forgot what I wanted to say altogether.

During this time, I continued to advocate for myself, knowing that something was wrong and that I just had to find the one person who would finally hear me and explore possibilities beyond anxiety. The problem I faced was that even though *I* could recognize that I was not operating at my normal capacities, medical professionals and their tests still measured my health and capabilities as *normal*. The people in my everyday life, however, could easily recognize that something was wrong. My boss and colleagues at MSU wondered why my productivity was dropping off and why I was not my usual engaging, spirited self at work. My parents wondered why I could no longer hold a set of five playing cards in my hand during our game night. My husband wondered why I was waking up almost every night with painful headaches and could no longer sing along to songs on the radio or send a coherent text message. The people in my life who knew me and experienced the person I was in everyday life could recognize that something was amiss when the doctors, nurses, and psychiatrists could not. After several weeks I finally found a physician who not only went through all the medical tests, but who slowed down and took the time to hear my story and acknowledge that just because everything appeared medically *normal* did not mean that there was not a larger problem. This doctor, and his humanistic approach to medicine, saved my life. After a special set of CT scans a few weeks later, I received a phone call telling me to get to the nearest hospital right away. More rounds of CT scans, an

MRI, intravenous heparin treatments, and a hospital stay revealed that I had dissected my left internal carotid and right vertebral arteries in my neck. The arterial dissections resulted in an ischemic stroke and this was the reason behind all my strange symptoms.

As I write this final piece of my dissertation, I cannot help but consider the impact my experience with stroke had on the shape and direction of this project. I learned of my dissections and stroke while the entire world entered its first lockdown in response to the coronavirus, and it was during this time that I was able to focus on my rehabilitation and recovery. During this time, I also seriously considered the impact my health would have on my future career and academic success. With all the trouble I was experiencing with reading, writing, thinking, and speaking, I had to face the possibility that my cognitive deficits might never resolve and that I might not be able to continue my current path. One day I decided that the only way I would find out would be to try to pick up where I left off with my dissertation and see if it was still a possibility.

In picking up this project amidst my personal health concerns I found that my ideas and interests were shifting and becoming narrower. My original dissertation proposal focused on memory in crime fiction, but it took a much broader approach by addressing different types of memory and different characters—eyewitness memory, modes of detection and their reflections on memory conception over time, crime and trauma’s impact on memory encoding and recall, memory on a spectrum. After my stroke I found myself gravitating toward the narrative that *Memory Book* constructed around issues of cognitive disruption and I became deeply invested in learning about Howard Engel’s own experience with stroke and how it informed his writing. I had always intended on at least addressing *Memory Book* in one of my dissertation chapters when discussing the memory spectrum and amnesia, but post-stroke I became intimately aware of the unique nature of Engel’s narrative, of the circumstances in which it was written, and the

potential that the novel had in making meaningful contributions to grappling with memory and cognition. By writing this version of the dissertation I wanted to bring a lesser-known text of crime fiction to the forefront to highlight its value in investigating issues of memory and its exploration of cognitive disruption and rehabilitation.

The current shape of this project reflects a deeply personal investment in probing the relationship between literature and issues that traditionally fall under the purview of the hard sciences. The experiences of real people like Henry Molaison, Howard Engel, and myself elucidate the limitations of purely medical or scientific approaches to studying the human mind and instead advocate for the value of narrative and discourse when theorizing memory and cognition. Of *Memory Book* Engel writes, “This book is about the road back...and how I found my road back into the mysteries of what reading and writing are all about” (Introduction, *The Man Who Forgot How to Read*). The novel played a crucial role in Engel’s recovery and it helped him grasp a deeper understanding of how reading and writing, familiar tools for an author, play a crucial role on that journey. In reading and parsing out the intricacies of this novel I have also found my way along a bizarre path toward recovery because Engel’s text engages with memory and cognitive disruption in ways that narrativize my real-life experiences after stroke. I can relate to Benny Cooperman mistaking hair gel for toothpaste or being overcome by impenetrable fatigue. But for readers who come to *Memory Book* without the same cognitive baggage there are also relatable memory mishaps like forgetting someone’s name, a train of thought, or misplacing an important item. These moments in the text serve as connection points for readers while simultaneously causing them to pause and reflect on memory. The novel dramatically slows its pacing and refocuses its narrative to highlight these moments and encourage readers from all perspectives and life experiences to linger in the stillness of the

narrative and ponder, question, and resist everything they have ever learned or heard about the human mind and memory.

Over the course of this project I have dissected Engel's novel to uncover the larger stakes that crime fiction and literature have in conceptualizing memory. Memory rests at the heart of every crime fiction narrative because these stories are driven by the need to recreate the moments leading up to the crime. All too often, however, crime narratives have relied on memory as an inconsequential plot device rather than considering it as a human process with all the complexities, messiness, and inconsistencies of the human experience. Recent trends in crime fiction have reconsidered this handling of memory with the introduction of amnesiac detectives and eyewitnesses,¹ but many of these narratives still come up short by either contributing memory loss to substance abuse or by following more traditional routes of trauma and repressed memory. *Memory Book* takes an unconventional approach to memory both in its conceptualization, and in *how* the text sets up and interrogates the human mind. This dissertation presents three narratological tasks that are unique to extreme and rare cases of amnesia in crime fiction and shows how each task operates to wrestle with, push back against, and theorize new perspectives on memory and cognition.

As my dissertation has demonstrated, Engel's text situates memory at its center, elevating it to a parallel mystery and complicating the often too simplistic views of memory as merely remembering and forgetting. Placing memory in the spotlight illuminates its intricacies and exposes its failures; urging readers to engage with memory as a multifaceted process with myriad

¹ Recent examples of crime fiction narratives that tackle amnesia and memory loss include but are not limited to Richard Morgan's *Altered Carbon* (2002); Umberto Eco's *The Mysterious Flame of Queen Loana* (2004); Tana French's *In the Woods* (2007); Paula Hawkins's *The Girl on the Train* (2015); and A.J. Finn's *The Woman in the Window* (2018).

factors that contribute to its malfunctions and loss. The second task considers the relationship between the hard sciences and the humanities and suggests that crime fiction texts that make extreme cases of amnesia their subject highlight literature's intercessory nature. *Memory Book's* paratextual elements work in unison to establish the connections between memory loss, the hard sciences, and literature, whereas the narrative Engel constructs utilizes characters, settings, metaphors, and solution of the criminal mystery as a means of parsing out the minutia of these relationships. Engel's novel lays bare the limitations of the hard sciences and advocates for a more humanistic approach to studying memory and cognition. While the second task sheds light on the shortcomings of neuro-specific approaches to the mind and presents literature as a possible way forward, the third and final task proposes *how* and *what* literature is suited to contribute. Novels like Engel's craft narratives around issues of memory loss and cognitive disability and, in doing so, reveal the very human reactions to and ramifications of these struggles. *Memory Book* clearly delineates through its paratext and narrative the relationship between the author's life and the story he constructs, effectively collapsing the seemingly rigid boundary between reality and fiction. In doing so, Engel's novel is infused with authenticity and ethos to support its heterogeneous and constantly evolving conception of memory and cognition. Where the sciences thrive in isolation and control, *Memory Book* excels in its use of genuine lived experience to illuminate and begin unraveling the mysteries of memory.

The implications and critical interventions of this project are multi-faceted. From a popular literature perspective, it encourages scholars to reconsider crime fiction's place in the literary canon. Crime fiction has long been considered low brow, but through its longtime investment in issues of memory and the human mind it demonstrates that the genre can expand beyond its formulaic elements to interrogate complex human issues and their ramifications in

society and the legal system. While this dissertation does emphasize the limitations and shortcomings of the hard sciences, I do so to highlight, question, and undercut the imbalanced power hierarchies at play between STEM and the humanities. To throw out the sciences altogether would be short-sighted and a step in the wrong direction, however. Through this dissertation I intend, rather, to bring attention to the unique perspectives that literature provides on memory and cognition and to emphasize how narrative, discourse, and lived experience are invaluable accouterments to crucial debates on these issues. Texts like *Memory Book* lend a narrative voice to amnesia, creating a discourse and a community of individuals who can relate to and experience the fissures in memory from a real perspective. Much of what we know today about Henry Molaison is couched in scientific jargon and devoid of human life. For many, Molaison exists more as a brain in a laboratory than a person. What narratives like *Memory Book* provide, therefore, is an empathetic and compassionate outlet for talking about the experience of memory loss and cognitive deficit. The fragility of human experience cannot be narrated through scientific discourse alone, and stories like Engel's open a space for an intimate, humanistic reclaiming of the experience of cognitive struggles.

My personal experience with stroke is what ultimately changed the trajectory of this dissertation to focus on a single work. Even though there are several crime fiction texts that address memory loss and amnesia, *Memory Book's* interest in extreme and rare cases of amnesia is one of its defining features and what establishes it as extraordinary. Extreme cases of memory loss that include rare and perplexing complications like—in Engel and Cooperman's case—alexia sine agraphia, help trace the boundaries around average human memory. Extreme cases of memory bring anomalies into view and give a fuller sense of how memory succeeds or fails when the mind is unable to process, recall, or function in ways that used to happen automatically.

Texts of amnesia facilitate recurring memory mishaps and malfunctions, allowing for a slowing in the pace of the narrative and an intentional engagement with memory in ways that other crime fiction texts must gloss over at the expense of clipping investigative speeds. Readers are not only allowed but encouraged to revel in memory's messiness and to engage with the *what*, *when*, and *how* questions of memory.

Memory Book's handling of cognitive issues is not the only aspect that warrants a critical analysis of Engel's text. The author's personal experience following his stroke informs and motivates the narrative, infusing it with reality and lived experience in ways that are inaccessible to other crime fiction texts. The novel extends beyond the traditional boundaries of creative fiction and into the real world because everything that Engel writes about memory and cognition comes from his firsthand accounts rather than through observation or research. Scholars often cite Arthur Conan Doyle's background as a physician and Dashiell Hammett's career as a Pinkerton detective as playing valuable parts in informing their texts and the perspectives and approaches their detectives take. Similarly, Engel's background as a patient who has suffered a stroke, memory loss, and a case of alexia sine agraphia provides readers with an authentic narrative experience of cognitive disruption and amnesia. Focusing solely on *Memory Book* in this dissertation project might appear too narrow at first glance, however, because of the way memory is brought into focus and the novel's ability to transcend fiction through the experience of its author, this text opens doors to previously unexplored issues in crime fiction by complicating established views of memory.

The future of this project rests in expansion on a few key concepts surrounding memory. For example, although the presence of alexia sine agraphia in the narrative is briefly addressed in the current project, there is a need for a more thorough investigation of how Engel/Cooperman's

inability to read is tied to issues of memory. Even though he has lost his reading capabilities, Cooperman still retains his ability to write, and writing takes on a crucial role in the novel in the presence of the memory book. Thus, in extending this project I would address alexia sine agraphia and the complicated nature of Cooperman's memory book as a means of analyzing how memory is tied to writing as both a memory aid, and a powerful tool in cognitive rehabilitation and recovery.² Considering the relationship between reading, writing, and memory in the novel also allows for a deeper understanding of how and why literature is an important medium for exploring and theorizing issues of the human mind and cognition. Additionally, in the introduction I presented the idea of the memory spectrum, arguing that amnesia and perfect memory exist on opposite ends. In expanding this project, I would like to return to the memory spectrum and place Engel's *Memory Book* in comparison and conversation with crime fiction texts representative of the opposite end of the scale. Early iterations of the genre with detectives like Dupin, Holmes, and Poirot point out the superhuman capabilities of the investigator and their processes, which I have shown to be tied to contemporary theories of memory and cognition. More recent texts like David Baldacci's *Memory Man* (2015)³ and Marcus Sedgwick's *Mister Memory* (2016) present detectives with perfect memories and not only reflect but push back against the positive scientific and philosophical representations of this type of memory by exposing its traumatic realities and connection to disability studies.

In the case of Baldacci's detective, Amos Decker, his perfect memory comes because of head injury caused by a football accident. The incident radically alters Decker's career trajectory

² See Lyn Hejinian's, *Writing Is an Aid to Memory*; David Farrell Krell's, *Of Memory, Reminiscent, and Writing: On the Verge*; and Stewart Neal Whittemore's, *Writing Memory: A Study of Memory Tools in Invention*.

³ *Memory Man* is the first in Baldacci's six-part series on detective Amos Decker.

by ending his athletic career and foisting him into the position of a police detective. Although Decker's unfailing memory does serve as a useful tool in investigating crime, Baldacci complicates a simplistic, positivistic view of perfect memory by repeatedly haunting Decker with the intimate details of his own family's horrific murder and crime scene. Alternately, Sedgwick's novel is set in France in 1899 and follows Marcel Després who has been imprisoned under suspicion of a brutal murder but is found to have perfect memory. In investigating the case, a detective and a doctor work together to understand how Després mind works and clear his name. Sedgwick's use of a detective and a medical figure provides an interesting comparison with *Memory Book* as it raises questions about the co-mingling of scientific and literary perceptions and approaches to studying memory. Furthermore, as Sedgwick's novel unfolds, a tangled web of trauma and cognitive disability becomes visible which highlights and pushes back against many of the same traditional conceptions of memory that Engel's novel combats. In placing *Memory Book* in conversation with texts from the opposing end of the memory spectrum it brings together a rich network of crime fiction texts invested in challenging simplistic views of memory and cognition and investigating alternative methodologies of studying the human mind.

Engaging with *Memory Book* over the course of this dissertation process has been as equally triggering and traumatic as it has been eye-opening and complex. Throughout this process the novel my views of memory and cognition have radically shifted. I may be a unique reader of Engel's text, but I would argue that *Memory Book* presents a rich and heterogenous narrative about cognition that beckons readers of all backgrounds to engage in uncommon and invigorating ways to push beyond the boundaries that have been traced around human memory to see what texts of crime fiction lay bare and make possible for the future of memory studies.

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