A MIND WITH A VIEW: COGNITIVE SCIENCE, NEUROSCIENCE AND CONTEMPORARY LITERATURE

A Thesis
Presented To
The Graduate Faculty of The University of Akron

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

Louis Jason Slimak
May, 2007
A MIND WITH A VIEW: COGNITIVE SCIENCE, NEUROSCIENCE, AND
CONTEMPORARY LITERATURE

Louis Jason Slimak

Thesis

Approved: 

Accepted: 

Advisor
Dr. Sheryl Stevenson

Dean of the College of Arts & Sciences
Dr. Ronald F. Levant

Faculty Reader
Professor Bob Pope

Dean of the Graduate School
Dr. George R. Newkome

Department Chair
Dr. Diana Reep

Date
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II. GETTING LOST IN THE VIETNAM EXPERIENCE: COGNITIVE MAPPING AND NARRATIVE IN TIM O’BRIEN’S THE THINGS THEY CARRIED</td>
<td>10</td>
</tr>
<tr>
<td>Making Sense of the Story</td>
<td>10</td>
</tr>
<tr>
<td>The Story as Sense-Making</td>
<td>21</td>
</tr>
<tr>
<td>III. IT WAS FATHER, ON THE LAWN, WITH THE GARDEN FORK: DETECTING THE STORY IN MARK HADDON’S THE CURIOUS INCIDENT OF THE DOG IN THE NIGHT-TIME</td>
<td>29</td>
</tr>
<tr>
<td>Stories of “Difference”</td>
<td>29</td>
</tr>
<tr>
<td>The Sameness of Stories</td>
<td>34</td>
</tr>
<tr>
<td>IV. THINKING ALL THE TIME: SCIENTIFIC REPRESENTATION OF CONSCIOUSNESS IN IAN MCEWAN’S SATURDAY</td>
<td>47</td>
</tr>
<tr>
<td>Gut Reactions: Levels of Consciousness in Saturday</td>
<td>47</td>
</tr>
<tr>
<td>The Mind in the Body: Narrating the Nonverbal</td>
<td>55</td>
</tr>
<tr>
<td>Drafting the Mind’s and the Body’s Narratives</td>
<td>61</td>
</tr>
<tr>
<td>V. CONCLUSION</td>
<td>65</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>69</td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

Moments into his 2000 article entitled, “The Mind and the Book: A Long Look at Psychoanalytic Literary Criticism,” Norman Holland pauses to ask, “What’s next?” (4). In the brief exposition before that confrontational question, he quickly defines the field as it is; one is either “a classical psychoanalyst, an ego psychologist, a Lacanian, a Kleinian, a member of the object-relations school, a Kohutian, and so on” (1). But it isn’t the field as it is that excites Holland; it’s the prospect of what is to come. And that new direction in psychoanalytic literary studies can be found in the 2003 book Narrative Theory and the Cognitive Sciences, a collection of essays that exemplifies this new approach, one that David Herman dubs “cognitive narratology” (“Interdisciplinary Narrative Theory” 1). What Holland, Herman, and a growing group of literary theorists are talking about is the influence of the cognitive sciences upon literary theory, specifically upon what has traditionally been called psychoanalytic theory.

Holland’s article serves as a call-to-arms, or, perhaps, a wake-up call to contemporary psychoanalytic theorists. He explicitly states that “the direction psychoanalytic theory, including theory of literature, needs to take in the twenty-first century is to integrate psychoanalytic insights with the new discoveries coming from brain research and cognitive science” (4). And since Holland’s challenge in 2000, a host
of literary theorists have begun an undertaking that seeks to carry out Holland’s vision: the marriage of established psychoanalytic techniques with the scientific specificity gained through cognitive and neuroscientific theories. *Narrative Theory and the Cognitive Sciences*, the insightful and pragmatic anthology edited by Herman, contains twelve articles, each written or co-authored by different literary theorists, in four different areas: (1) “Approaches to Narrative and Cognition”; (2) “Narrative as Cognitive Endowment”; (3) “New Directions for Cognitive Narratology”; and (4) “Fictional Minds” (v-vi). Contemporary to that work, Patrick Colm Hogan published his own book-length treatise, entitled *Cognitive Science, Literature and the Arts*. And, as recently as 2006, Lisa Zunshine published her own groundbreaking book of cognitive narratological theory in *Why We Read Fiction*, in which she applies cognitive insights to a variety of texts, including *Crime and Punishment*, *Mrs. Dalloway*, *Lolita*, *Pride and Prejudice*, *Clarissa*, and *The Maltese Falcon*.

Herman’s introduction in *Narrative Theory and the Cognitive Sciences* precisely and eloquently outlines why the cognitive sciences and literary theory need to engage in a constructive and creative dialogue; cognitive science can help literary theorists in “making sense of stories,” while literary theorists can help cognitive scientists see “stories as sense-making” (12-13). Within just this one collection of articles are a number of specific cognitive approaches and methodologies with great pragmatic value for literary analysis: these include Kitty Klein’s linguistically fueled study linking cohesive narrative to emotional health, Herman’s own essay in which he shows how stories are “tools for thinking,” Marie-Laure Ryan’s concept of cognitive maps in the mind and in fiction, and Uri Margolin’s densely pragmatic article on the fictional mind as a picture of
a mind in action. While their approaches differ, what most of these theorists (including Zunshine and Hogan) share can be found in their bibliographies. Writers like Noam Chomsky, Antonio Damasio, Norman Holland, Joseph LeDoux, Steven Pinker, Daniel Dennett, Simon Baron-Cohen, and Oliver Sacks recur, time and time again. And what these writers have in common is that they are all scientists and philosophers working in the fields of the cognitive sciences and neuroscience.

Specialists in diverse fields who have contributed to the cognitive sciences open what I feel is a window to exactly the sort of progress Holland is championing in literary theory, making it possible to make new inroads into understanding the human experience through literature and art. These scientists and philosophers are writing about a single concern from the vantage points of several distinct fields within the cognitive sciences: what is the socio-biological nature of consciousness? Steven Pinker suggests that this discourse is not one-sided and that the sciences stand to benefit through cognitive concepts emerging in fiction:

People are imaginative animals who constantly recombine events in their mind’s eye. That ability is one of the engines of human intelligence, allowing us to envision new technologies (such as snaring an animal or purifying plant extract) and new social skills (such as exchanging promises or finding common enemies). Narrative fiction engages this ability to explore hypothetical worlds, whether for edification – expanding the number of scenarios whose outcomes can be predicted – or for pleasure – vicariously experiencing love, adulation, exploration or victory. Hence Horace’s definition of the purpose of literature: to instruct and to delight. (Blank Slate 406)

Pinker, who in The Blank Slate defends and demystifies what he previously described in How the Mind Works, also asserts the value the sciences can have for study of the arts, including literature:
A good grasp of how the mind works is indispensable to the arts and humanities for at least two reasons. One is that the real medium of artists, whatever the genre, is human mental representations. Oil paint, moving limbs, and printed words cannot penetrate the brain directly. They trigger a cascade of neural events that begin with the sense organs and culminate in thoughts, emotions, and memories. Cognitive science and cognitive neuroscience, which map out the cascade, offer a wealth of information to anyone who wants to understand how artists achieve their effects. Vision research can illuminate painting and sculpture. Psychoacoustics and linguistics enrich the study of music. Linguistics can give insight on poetry, metaphor and literary style. Mental imagery research helps to explain the techniques of narrative prose. The theory of mind (intuitive psychology) can shed light on our ability to entertain fictional worlds. (Blank Slate 417)

But even more important to Pinker “is not just the sensory experience of the medium but its emotional content and insight into the human condition” (Blank Slate 418).

In *Descartes’ Error*, Antonio Damasio formulates a hypothesis for an essential emotional component of knowledge and behavior, something he calls a “somatic marker.” This hypothesis also is based on body states – an unconscious level of meaning and memory generated through physical states, such as pain or pleasure – and on the preconscious screening of sensory stimuli. The recognition of these basic emotional biases functioning on a visceral level as reactions to real or imagined perceptions, stimuli, and courses of action can lend piercing analytic clarity to a literary theorist attempting to explain the represented thoughts and actions of a fictional character. For example, in studying a character like Ian McEwan’s Henry Perowne – a neurosurgeon possessed by just this sort of knowledge and whose actions and thoughts are narrated to us in the present tense – we are being given a scientific principle to examine a linguistic construction of human motivations. A fictional work is able to recreate what happens within a character’s body and the possible effects it may have on his or her consciousness, and represent that entire causal chain to the reader. What Damasio
reveals, through its absence in his brain-damaged subjects, is the emotional component of the mind’s normal functioning that we can observe also through McEwan’s realistically detailed portrayal of Perowne’s consciousness.

Another illuminating work in the cognitive sciences, Daniel Dennett’s book *Consciousness Explained*, is a pragmatic phenomenological method for talking about consciousness, an invaluable tool for literary theorists interested in discussing the fictional portrayal of consciousnesses. In trying to debunk the “Cartesian Theater,” the view that there is an internal perceiver and intender of all our perceptions and actions, Dennett submits his own “Multiple Drafts Model.” Like drafts of a text, our brain, through a complex coordination of processes and structures, is constantly selecting from an almost infinite sea of sensory perception, and then modifying and revising what we think we are perceiving and what we think is happening and what it means to us. Some of his key insights, beyond his central Multiple Drafts Model, that could be used in literary theory are his ideas on how the brain represents time, and how human beings “spin a self” (412). Dennett’s belief that there is a window of perceptual time in which the brain can freely rearrange events – to more properly establish causality, as well as make errors – and what this means for memory and our idea of identity, speaks directly to a work like Tim O’Brien’s *The Things They Carried*.

Other scientists, like V.S. Ramachandran and Oliver Sacks, theorize about the normal workings of the human mind by working in reverse from their clinical experiences with patients who show marked differences from cognitive norms. Their case studies range from those patients suffering from Capgras’ syndrome – an inability to recognize the faces of loved ones because of structural damage – to others with severe
damage in the right hemisphere of the brain leading to anosognosia – a severe emotional reasoning impairment that can lead to denial of a bizarre extent. These conditions, and conditions like them, like anosognosia can help illuminate the common, healthy Freudian defense mechanisms normal people engage in daily (practices like denial, rationalization, confabulation, and repression). All of Sacks’s and Ramachandran’s studies begin with the cognitively different individual, as do works of fiction like William Faulkner’s The Sound and the Fury, and both the scientific case studies and such fictional texts end up reflecting upon our own healthy and normative mental activities. Since the pages of novels are filled with portrayals of psychological difference, here is a direct pipeline for literary analysis to draw upon scientific specificity. Haddon’s Christopher alone can be discussed in terms of Capgras’ syndrome and mild anosognosia, as well as through neuroscientific studies of autism.

In order to demonstrate just some of these theories in practical literary analysis, I plan to examine three novels: Tim O’Brien’s The Things They Carried, Mark Haddon’s The Curious Incident of the Dog in the Night-Time, and Ian McEwan’s Saturday. O’Brien’s The Things They Carried deals with traumatic narrative, emerging from events that transpired during the Vietnam War. Certain fictive experiences of the fictional narrator (the repeated description of the man the fictional Tim O’Brien killed and the story of Curt Lemon’s violent and unexpected death) are represented in ways that illuminate the cognitive processing of intense emotional experiences, a process that starts with sensory input, and ends in, among myriad other products, a cognitive map – a mental representation of physical space. By applying the concept of cognitive maps, a theory that attempts to demonstrate the ways in which our brains create spatial
relationships both in the world we live and within texts, the Vietnam of O’Brien’s *The Things They Carried* can be shown to be a shifting, ambiguous physical place. The absence of concrete cognitive mapping adds to the disorienting experience for both the soldiers in the stories and the reader of those stories. O’Brien’s metafictional message, that one can’t ever know the truth of a particular experience, particularly one as confusing and chaotic as the Vietnam War, and that stories can convey a feeling of that truth without limiting themselves to being strictly factual in their representations, is reinforced through his stylistic frustration of cognitive maps in his stories.

In creating his protagonist and narrator in *The Curious Incident of the Dog in the Night-Time*, author Mark Haddon is careful never to label Christopher as “autistic.” But Christopher does differ from many accepted norms of human cognition, emotion, and relationship. From the spurious causal associations he constructs (four red cars in a row make a good day) to his whimsical but passionate preferences (he favors prime numbers and the color red, but hates yellow and brown), to his linguistic and social difficulties (he doesn’t understand the humor in puns, nor can he keep up with “reading” people’s changing facial expressions), at first glance, Christopher certainly seems different. But after reading “his” story, we are forced to wonder, “How different is he, really?” He constructs, orders, and creates a narrative of his life and his experiences, provides the form and assigns meaning, tries to explain himself and communicate that meaning to those around him in the best way he knows how: through story. The idea that narrative is somehow central to human consciousness, basic to our way of thinking and processing stimuli, is well-explored by scientists and by literary theorists, especially in narratology. David Herman and Kitty Klein are two cognitive theorists concerned with the uses of
stories in every day, normal cognition, in applications as diverse as recovering from a traumatic experience (like the murder of the next door neighbor’s dog in the novel) to using stories as schema to navigate casual conversations. Through Christopher’s use of story in Haddon’s novel, we understand what has long been suggested: that stories don’t focus on what makes their characters “different,” but, rather, how we can truly begin to understand what it is that makes us all the same.

Portraying a contemporary Everyman, albeit a privileged one, Ian McEwan’s latest novel, *Saturday*, tells the story of a day in the life of affluent neurosurgeon Henry Perowne. Like McEwan himself, who acknowledges the neurosurgeons with whom he worked, observed and studied for two years in writing the novel, Perowne is well versed in the theories being propounded by the emerging cognitive sciences. Through Perowne’s explicit thoughts as the novel’s first-person narrator, McEwan presents consciousness in a way that resembles Dennett’s model in *Consciousness Explained*. In any novel, but particularly in one like *Saturday*, where the action is told in the present tense, with a great deal of attention paid to the main character’s conscious perceptions and intentional (or semi-conscious) actions, cognitive theories like Dennett’s allow us to generate a more specific set of possible explanations for the character’s thought processes, and, in turn, to recognize those processes at work in our own minds. McEwan’s predominant use of the present tense within the first-person point-of-view implicitly underscores what Dennett means by the “remembered present”: that because our minds are reacting to, but not creating, objective stimuli, the moment of human consciousness is occurring on several levels at once, with our minds aware of contents they are not yet fully conscious of. Our
minds, like Perowne’s, then struggle to create a narrative-like order to give those experiences meaning and context to help guide future choices and actions.

It is my hope that by applying modern scientific theory to works by established figures like Tim O’Brien and Ian McEwan, as well as an emerging author like Mark Haddon, that the ongoing discourse between the humanities and the sciences will be enhanced. Literature provides a wealth of minds-in-action, hypothetical case studies for the cognitive sciences to find representations and testimonials of their theories in reality, albeit a fictionalized one, and cognitive science can provide literature with a methodology for analyzing fiction in new and relevant ways, by which the pragmatic utility of cognitive narratology can be demonstrated.
CHAPTER II

GETTING LOST IN THE VIETNAM EXPERIENCE: COGNITIVE MAPPING AND NARRATIVE IN TIM O’BRIEN’S THE THINGS THEY CARRIED

Part I. Making Sense of the Story

In cognitive narratology, the idea that stories, in any form, are used for more than entertainment or informational purposes, may be the key, unifying belief that links the psychological and literary disciplines together. In his essay “The Mind and the Book: A Long Look at Psychoanalytic Literary Criticism,” Norman Holland explicitly states that “the direction psychoanalytic theory, including theory of literature, needs to take in the twenty-first century is to integrate psychoanalytic insights with the new discoveries coming from brain research and cognitive science” (4; my emphasis). Cognitive theorists have for years written extensively about the relationship between narrative and thought. In both The Blank Slate and How the Mind Works, cognitive scientist Steven Pinker argues that the practice of explaining and exploring the world and our experiences through art and literature has a psychological and evolutionary basis. Pinker writes that fiction
work[s] like experiments. The author places a fictitious character in a hypothetical situation in an otherwise real world where ordinary facts and laws hold, and allows the reader to explore the consequences. The intrigues of people in conflict can multiply out in so many ways that no one could possibly play out the consequences of all courses of action in the mind’s eye. Fictional narratives supply us with a mental catalogue of the fatal conundrums we might face someday and the outcomes of the strategies we could deploy in them. (How 541-43)

While Pinker explains the evolutionary need for reading and writing stories, neuroscientist Walter J. Freeman’s How Brains Make Up Their Minds describes the neurological processes that help the mind interpret sensory input and experience into personal knowledge and social meaning, processes that are remarkably similar to narrative production. Similarly, philosopher Daniel Dennett talks about the conscious and unconscious ways human beings “spin a self” (413). What’s more, both Pinker and Dennett have taken a step further in their interdisciplinary offerings, trying their hands at literary criticism. Pinker goes so far as to criticize Virginia Woolf’s modernist style as being part of the cause for current crisis in the arts and humanities, suggesting that modern and post-modern narrative experiments are somehow inherently less valid in their representations of conscious life. Pinker faults her fiction for being one without “omniscient narration, structured plots, the orderly introduction of characters, and general readability,” which is, instead, characterized by “stream of consciousness, events presented out of order, baffling characters and causal sequences, subjective and disjointed narration, and difficult prose” (Blank Slate 410). Whether or not literary critics agree with Pinker’s evaluation, what is clear is that literature, “as a very special, richly concentrated cognitive artifact . . . already is fair game for scientists including Pinker,
Daniel Dennett, Paul Harris, Robin Dunbar, and others, and it will become even more so as the cognitive inquiry spreads further across cultural domains” (Zunshine 41).

Literary theorist Lisa Zunshine, in responding to Pinker’s inflammatory and dismissive criticism of modernist literature, actually applauds the interdisciplinary move that he makes in trying to “address a larger audience with important questions about literature and cognition” (44). What Zunshine is calling for, like Norman Holland before her, is a reciprocal interdisciplinarity, for literary scholars to “meet Pinker halfway and offer our literary-historical expertise to develop a more sophisticated and yet accessible cognitive perspective,” both on literature and the consciousness (44). It is no surprise then, that in answer to this continued demand for interdisciplinary study, there is an emergence of works by cognitive narratologists that focus on the role of narrative in consciousness: Patrick Colm Hogan, David Herman, Manfred Jahn, Marie-Laure Ryan, Uri Margolin, and Zunshine all address different aspects of narrative as a process or function of cognition.

One particular cognitive narratological construction that interests Marie-Laure Ryan in particular, and one that has pragmatic utility for literary analysis, is cognitive mapping. The term “cognitive map” is itself broad and, as Ryan notes, can refer to the memorization of graphic or geographical maps, “mental images of complex spatial environments,” and even “private representations of geographical entities that ascribe personal values to different areas: dangerous, safe, desirable, vacation spot, good place to live” (214). People use their cognitive maps every day in navigating to and from work, in memorizing local road maps or world maps, and in “forming mental images of complex spatial environments,” like visually imagining a room at home, or the entire house.
Cognitive maps can be and are used for a variety of purposes; citing Yi-Fu Tuan, Ryan lists five, of which three are especially important for literary theorists: “They are used as mnemonic devices (‘memory palaces’), . . . means to structure and store knowledge, . . . serve as ‘fields of dreams’ to the imagination” (214). They are also a way to “internalize an experience of space which is usually based on visual cues (studying a map; walking through a city; scanning a text)” (214, 231). As neurologist Antonio Damasio suggests, cognitive maps owe their existence to “the fact that both words and arbitrary symbols are based on topographically organized representations and can become images. Most of the words we use in our inner speech, before speaking or writing a sentence, exist as auditory or visual images in our consciousness” (106). The mind’s maps synthesize an almost infinite amount of sensory data into a visual-cognitive representation.

For a novel that makes the blurred line between fiction and reality one of its unifying themes, as does Tim O’Brien’s *The Things They Carried*, one way of analyzing its content is on the basis of these remembered or created geographies, or “cognitive maps.” Though I am going to focus on the spatial relations of cognitive maps, as does Ryan, it’s important to note, as she does, their other uses for literary theory. Drawing on Richard Bjornson, Ryan extends the use of the term to denote “a global mental representation of the literary text that involves not just spatial relations, but any type of meaning and formal organization” (215). However, like Ryan, I plan to use the idea of cognitive mapping to show how “verbal evocations” can “treat space as a stage for narrative events” (215). O’Brien, through unstable physical description and mapping, confuses and muddies that stage in order to involve the reader in the Vietnam War’s
characteristic uncertainty, as well as to include the reader in his fictional narrator’s quest to make meaning from such an ambiguous and seemingly pointless experience.

In order to prevent confusion, I will distinguish between the author Tim O’Brien, and his fictive creation in *The Things They Carried*, as “the narrator,” or “the character” O’Brien. In 1994, the author returned to Vietnam. While he was originally a soldier for the United States in the Vietnam War, O’Brien’s second tour of duty was one served as a civilian and a writer, a chronicler of Vietnam – the country, the people, and the war. Though any informed reader of O’Brien’s *New York Times Sunday Magazine* cover story, “The Vietnam in Me,” would be able to imagine a wealth of potential motives behind his Vietnam visit, there is at least one explicit goal that O’Brien himself details in his article: he went back to find one of the battlefields fictionalized in *The Things They Carried*. In the “In the Field” and “Field Trip” chapters, O’Brien tells the story of being bombarded at night in a flooded “shit field,” the same battlefield which in his *Times* essay he describes as where “in the course of two hell-on-earth hours we took 13 casualties” (56). However, O’Brien’s search for this “one piece of ground” is frustrated in that his anti-Shangri-La is really nothing more than an unnamed rice paddy. Though he’s come “prepared with a compass, a military map, grid coordinates, a stack of after-action reports recovered from a dusty box in the National Archives,” he quickly becomes “utterly lost” (56). Even with his map and the help of some local villagers to point the way, things get no better. The villagers look at the map and argue and disagree among themselves; “one of them points west, another north, most at the heavens” (56). O’Brien and his small entourage drive around for “well over an hour” until they end up “precisely where [they] started” (56).
O’Brien then takes a slightly different approach to finding his field of nightmares. Marking a “low green hill” on the west horizon, with “[o]ne eye on the compass, one eye on some inner rosary,” he leads his group east, “past a graveyard and out along a narrow paddy dike,” until he’s suddenly exactly where he was aiming to go, or until he’s found a surrogate field that will serve his purposes. Any “lovely field of rice” could be the one where “Paige lost his lower leg” and where “we had to probe for McElhaney in the flooded paddy” (56). If he’s to find closure, he’ll have to make it for himself here.

Perhaps the most striking line in O’Brien’s search for this once-hell echoes what it was like when he was there before: “Lost, that was the Vietnam of 25 years ago” (56). The soldiers were lost physically, mentally, and emotionally. Steven Kaplan clarifies that very sense of being displaced in his article, saying that “almost all of the literature on the war, both fictional and nonfictional, makes it clear that the only certain thing during the Vietnam War was that nothing was certain” (43). O’Brien, homing in even further on the spatial confusion that was such a dizzying aspect of the war, writes “[y]ou can’t tell where you are, or why you’re there, and the only certainty is overwhelming ambiguity” (Things 82). Faced with that level of confusion and that sort of “overwhelming ambiguity,” his narrator is unable to locate himself physically in such a hostile and alien place, unable to give meaning to his stay, his actions, or his progress in the war or through the country. O’Brien’s text thus enables the reader “to become immediately involved in the incredibly frustrating act of trying to make sense of events that resist understanding. The reader is permitted to experience at first hand the uncertainty that characterized being in Vietnam” (Kaplan 48).
In his chapter “In the Field,” which recounts the battle in the “shit field,” O’Brien does no more to locate the one-sided battle geographically than to say that the field was on “the river,” on the “Song Tra Bong,” and that “at one edge of the field was a small ville,” at another edge, “a narrow dike” (Things 168, 173). There are no compass directions given to make the location any more precise, nor does the description of the battle itself lend any clarity: the soldiers simply “took mortar fire from across the river” (Things 169). As the mortar rounds fall upon them, O’Brien describes one young soldier’s search for the injured Kiowa this way: “He remembered trying to crawl toward the screaming. No sense of direction, though. . .” (Things 171). In his fictionalized return to the field – written four years before his actual return – O’Brien gives us even less to construct a mental landscape, saying, “it was just what it was. Flat, dreary and unremarkable. I walked up toward the river, trying to pick out specific landmarks, but all I recognized was a small rise where Jimmy Cross had set up his command post that night” (Things 185).

This kind of sparse and ambiguous physical description is typical of O’Brien’s representation of Vietnam in The Things They Carried. Though he sometimes mentions major geographical landmarks – the Song Tra Bong, the Batangan Peninsula, Tri Binh, the My Khe village, Pinkville and the Quang Ngai Province – these places are never given any extended description, nor are we provided with how they relate, geographically or topographically, to one another. It is possible using just these few place names and some other information O’Brien gives the reader in the book to locate the novel geographically and temporally, as Benjamin Golubuff does in his essay “Tim O’Brien’s Quang Ngai.” Yet the overwhelming sensation O’Brien fills the pages with is the one he
explicitly cultivates in “How to Tell a True War Story”: “For the common soldier, at
least, war has the feel – the spiritual texture – of a great ghostly fog, thick and permanent.
There is no clarity. Everything swirls. . . . The vapors suck you in. You can’t tell where
you are, or why you’re there, and the only certainty is overwhelming ambiguity” (Things
82). Most of the action of the stories in the novel takes place in amorphous, unspecified
settings, in “the mountains” or in a “shit field,” on a “trail,” in a “small hamlet,” or just
“deep in the bush” (Things 73,135,162). Even when there is more time spent in
describing the physical surroundings, it often does more to further the sense of
placelessness than to help actually locate the action. Movement, temporally and spatially,
is disconnected and nonlinear, rapidly changing place and time from chapter to chapter,
often even within chapters.

David Herman writes that narrative makes use of “a process of cognitive mapping
that assigns referents not merely a temporal but a spatio-temporal position in the
storyworld” (‘Spatial’ 535). Readers use these cognitive maps for a variety of purposes,
from anything as simple as imagining character movements to providing “a background
for the understanding of plot” (Ryan 216). Ryan notes that “people read for the plot and
not for the map,” and that “[w]e construct mental models of narrative space only as far as
we find a cognitive advantage in this activity – only as far as is needed to achieve
immersion in the textual world” (238). Unlike traditional plot-driven novels in which the
cognitive maps transcribe the action of the novel to a place in the mind, The Things They
Carried makes constructing any kind of cognitive map, either temporal or spatial, a
frustrating and demanding conscious activity on the part of the reader, and, thus, in effect,
links the reader through the timeless, placeless confusion to the experience of wartime Vietnam.

Ryan makes use of three criteria for the development and evaluation of a reader’s cognitive map and his or her representation of the textual world: “inventory, spatial relations, and mapping style” (Ryan 224). By applying these three cognitive criteria and their narrative implications to “How to Tell a True War Story,” our processing of the text’s ambiguous spatio-temporal relationships can be made more explicit. I’ll begin with the inventory of the chapter, the actual people and places mentioned in the story. Ryan found in her experiment with readers who were asked to actual sketch graphic maps from their memory or mental representations of a text’s cognitive map that “the first impression is the strongest: The representation of textual worlds gels early on, providing to the imagination a playfield for the moves of the characters” (226). And that early impression in “How to Tell a True War Story” is that, at some unspecified place in Vietnam, at some unspecified time, Rat Kiley wrote a letter to an unspecified dead friend’s unspecified sister. Our beginning cognitive map is of one character, Rat, sitting somewhere in Vietnam, writing; this impression is so ambiguous and disconnected, but at the same time so representative of what the chapter is about, as to set up perfectly that strong first impression of what a reader can expect to follow.

From that short initial exposition, O’Brien jumps temporally and spatially to a new and completely non-specific place and time, where the narrator Tim O’Brien reflects back on Rat Kiley and the events that prompted this chapter; our cognitive maps have been complicated further. Our original map, with Rat writing a letter somewhere in Vietnam, is actually a map within the O’Brien character’s mind, recreated from an
ambiguous place and time in the future. We return to Vietnam, but not to the Vietnam of Rat Kiley and his letter, but of a mission: “cross[ing] a muddy river, and march[ing] west into the mountains” (Things 69). There is no mention or detail of which river, or which mountains. The narrator’s platoon finds themselves in “deep jungle” where Curt Lemon is killed when he steps on a mine. The story then jumps forward again to the ambiguous place and time of the O’Brien narrator, and then back to Vietnam, this time alongside Mitchell Sanders, in a foxhole, “along a wide muddy river north of Quang Ngai,” where the O’Brien character is listening to yet another story that invokes “a patrol . . . up in the mountains . . . [where] everything’s all wet and swirly and tangled up and you can’t see jack, you can’t even find your own pecker to piss with. Like you don’t even have a body” (71). This movement back and forth, temporally and spatially, between narrators, between what happens in the frame of the story and what happens in the embedded stories within the framing story, creates such a confused, entangled web of a map that it quickly becomes difficult to say with any certainty just what is happening and where. It is exactly as the O’Brien narrator says later in the same chapter, “You can’t tell where you are, or why you’re there, and the only certainty is overwhelming ambiguity. In war you lose your sense of the definite, hence your sense of the truth itself” (82).

This sense of loss of the definite is reinforced by complex, convoluted, ambiguous cognitive maps in the story. Ryan says that “readers need mental maps to follow the plot, but that they construe these maps on the basis of the plot” (237). While the plot of “How to Tell a True War Story” is unconventional, it can be followed and understood by a reader who is attentive to the O’Brien character’s reflections on these stories, on the confusion of trying to link them together and of the shapeless, senseless place that was
Vietnam during the war. If our cognitive maps are ironically complicated by “How to
Tell a True War Story” (ironically, since it does nothing to actually suggest how to tell a
true war story other than frustrate the reader on as many levels as possible), it is because
they reflect the complicated plot of the chapter and the complex experiences being
narrated, and because they suggest that perhaps this is exactly how to tell a “true” war
story.

In contrast to the difficulties of constructing a coherent cognitive map in “How to
Tell a True War Story” are the relatively detailed and straightforward maps that can be
constructed from the chapters written in and about the O’Brien character’s experiences in
America, both before and after the war. Most interesting is “On the Rainy River,” the
story in which the narrator recalls getting drafted; set in America before the war, this
story abounds in cognitive map particulars. It begins in Worthington, Minnesota, a town
that the narrator O’Brien tellingly locates a few hundred miles south of the Canadian
border. When he finally decides to head for Canada in order to dodge the draft, his
journey can be reconstructed with a road map, or with a pencil, a piece of paper, and a
reader’s cognitive map. He drives north and at dusk the first day passed through Bemidji,
then “turned northeast toward International Falls” (47). He spent the night sleeping in his
car, “behind a closed-down gas station a half mile from the border,” and the next
morning, he headed “straight west along the Rainy River, which separates Minnesota
from Canada” (47). The fishing lodge where he stays is “on a peninsula that jutted
northward into the Rainy River,” and is itself described in detail: “eight or nine tiny
yellow cabins, . . . a dangerous wooden dock, an old minnow tank, a flimsy tar paper
boathouse along the shore. The main building, which stood in a cluster of pines on high
ground, seemed to lean heavily to one side, like a cripple, the roof sagging toward Canada” (47-48). The story proceeds from there, with a trip up-river, one last detail to add on the map.

Part II. The Story as Sense-Making

The disparate types of storytelling, the drastically different kinds of cognitive maps evoked by the different stories indicate that the experience on the Rainy River has been integrated in the O’Brien character’s sense of self. Because it is a complete experience, he can create a solid, clear, concise cognitive map and plot. In the stories that deal with or are set in Vietnam, the trauma of the experience, the ambiguity that still clings to the place, even in memory, prevents the narrator from making sense of it, from organizing it coherently; the plots, and the maps are confused and ambiguous.

It is interesting to examine the similarity in the maps in the roughly parallel chapters that O’Brien fictionalizes in The Things They Carried from his autobiographical memoir, If I Die in a Combat Zone. In “The Vietnam in Me,” O’Brien identifies the field as the place where “Paige lost his lower leg,” and “we had to probe for McElhaney in the flooded paddy” (56). Chapter XVII in If I Die in a Combat Zone tells the author O’Brien’s story of how in crossing a field behind some “tracks – armored personnel carriers, tanklike vehicles but without the cannon,” they suddenly come under fire, and in the ensuing confusion, “[t]he tracks ran over Paige, taking away his foot” (If I Die 143, 146). McElhaney gets run over by one of the tracks and his body gets crushed and lost under the mud that comes up to the soldiers knees (146-47). In The Things They Carried,
O’Brien fictionalizes the experience in his “In the Field” chapter, in which the narrator O’Brien’s platoon comes under heavy mortar fire in a flooding shit field, and when Kiowa is killed, his body is lost “under the mud and water, folded in with the war” (Things 162).

As I suggested earlier, O’Brien’s description of the “field” itself in “In the Field” is sparse at best. There is the “river,” a “small ville,” and a “narrow dike” bordering the field opposite the ville (Things 168, 173). What is interesting is that in Chapter XVII of his memoir, originally written in 1969, twenty-one years before The Things They Carried, and just after O’Brien’s actual tour, when the memory should still be fresh, the cognitive map is only slightly clearer. The initial setting for the story, “a paddy to the north of one of the villages at My Khe,” is the most detailed description that O’Brien gives, and the only one that even attempts to orient the reader to the geographical location of the battle. The remainder of the chapter takes place in the non-descript “village” with a “hill” somewhere nearby (If I Die 143). The soldiers and the tracks pass through three “hamlets,” none of which are described, nor are we given the approximate directions they took between the hamlets, or their respective geographical relation to one another. The ambush occurs as they “turned out of the villages into the rice paddy” (If I Die 145). They call in an air strike to drop napalm on the village – and in order for the jets to have found them, someone had to have known where they were and call in the co-ordinates – and after the strike begin to retreat. They decide to “move into the hamlet,” and some of the soldiers “move out of the paddy into a dry, wooded area, covering our left flank,” some move towards “the right flank – a broad, very large paddy dike” (If I Die 148). O’Brien’s ultimate description of the retreat from the village neatly demonstrates his
ambiguous representation of place and movement: “We turned our backs on the village and rode away” (If I Die 151). The experience, fictionalized or autobiographically recounted, resists the construction of an orderly cognitive map. There are places involved, like the paddies, with some sense of direction – the paddy dike bordered the paddy in both stories – but after the initial movement north from My Khe, the reader in both novels becomes as lost as O’Brien himself, keenly awake to the suffering and horror that he experiences in that rice paddy, but only vaguely aware of his surroundings and his movement through them.

All of these maps, whether ambiguous and confused, like those of Vietnam, or neatly organized and well detailed, such as the ones O’Brien creates in the chapters occurring at home in America, are products of O’Brien’s memory, as narrator or author. One of the thematic questions raised by The Things They Carried is whether or not the text should be seen as fact or fiction, as memory or invention, and whether or not that traditional binary opposition has anything to do with truth; whether or not the “story-truth” is more true than the “happening-truth,” as O’Brien himself writes. The text itself belongs to the literary category of metafiction, a category that Patricia Waugh defines in her book Metafiction as fictional writing which self-consciously and systematically draws attention to its status as an artefact in order to pose questions about the relationship between fiction and reality. In providing a critique of their own methods of construction, such writings not only examine the fundamental structures of narrative fiction, they also explore the possible fictionality of the world outside the literary fictional text. (2)
These texts “emphasize [how] the ability to manipulate and construct hypothetical, alternative or ontologically distinct ‘worlds’ is also a condition of social existence, of life outside novels” (Waugh 101).

Text processing, like memory, works through several mental processes simultaneously, from words to sentences, up to paragraphs and towards a general global meaning (Ryan 234). Part of the difficulty in reading The Things They Carried, whether for its cognitive maps or its plot, derives from the fact that visual images of space, the kind that would help a reader construct a cohesive, coherent cognitive map, aren’t typically part of the larger global meaning of a text. These “smaller textual units” – for instance the quick shifts in narrators and settings in “How to Tell a True War Story” – “affect primarily what has been called the sketch-pad of short-term, or, episodic, memory” and “the visualizations generated by the individual scenes merely replace each other” on that sketch-pad (Ryan 234-35). What happens, then, with the quick shifting is much like what happens in a movie filled with quick-cuts; the images form on the retina and meaning is generated in our consciousness just long enough before a new image replaces the first, almost clearing away that first image from our short term memory before it has ever reached the long term memory, where global meaning for the movie (or text) is made. In following the narration from narrator to narrator and place to place within these micro-texts, the reader doesn’t have enough information to produce a coherent cognitive map in his or her long term memory, and subsequently gets “lost” with O’Brien and the soldiers.

What’s more, these micro-texts are formed by our identification with characters. As Ryan suggests, “We see the characters, but we also see with them, and we share their
horizontal point of view,” their field of vision (234). The text transitions so quickly from the point-of-view and place of the O’Brien narrator to that of Rat Kiley’s story, back to the O’Brien narrator, to the time and place of Mitchell Sanders’ story, and then finally back to the O’Brien narrator, that it’s difficult to for readers to orient themselves; even the horizons we share through the character’s eyes aren’t given to us clearly. The narrator explicitly writes about his memory of Curt Lemon’s death that “[t]he angles of vision are skewed. . . . When a guy dies, like Curt Lemon, you look away and then look back for a moment and then look away again” (Things 71). By complicating the reader’s attempt to formulate a more global meaning, and by producing such confused cognitive maps via continued shifts in topography, chronology, and point of view, O’Brien keeps the process of constructing of the narrator’s memories in the reader’s short-term memory, quickly over-writing one scene and one narrative place with the next.

O’Brien frames The Things They Carried as a narrated memory, told by his narrator twenty years after the events in Vietnam occurred; it is, in the terms of neurologist Antonio Damasio, not a “rigid, facsimile representation” but, “rather an interpretation, a newly reconstructed version of the original” (106). In Searching for Memory, Daniel Schacter suggests that “even the seemingly simple act of calling to mind a memory of a particular past experience – what you did last Saturday night or where you went on your first date – is constructed from influences operating in the present as well as from information you have stored about the past” (8). Uri Margolin further connects this idea to literary texts:

Whenever the narrator is also a participant, no matter now minor, in the events and states being recounted by him or her, and whenever these events took place prior to the time of narration, the nature of the teller’s current mental activity in
retrieving stored information about the events and in (re)configuring it may be highly significant. (279-280)

O’Brien writes about remembering. But his narrator is actively involved in the metacognitive act of thinking about his memories. The O’Brien narrator pauses in the middle of the story to reflect on his memory of Curt Lemon’s death and says:

[I]t’s difficult to separate what happened from what seemed to happen. What seems to happen becomes its own happening and has to be told that way. The angles of vision are skewed. . . . The pictures get jumbled; you tend to miss a lot. And then afterward, when you go to tell about it, there is always that surreal seemingness, which makes the story seem untrue, but which in fact represents the hard and exact truth as it seemed. (Things 71)

In such passages, O’Brien illuminates the cognitive theories held by those like Schacter, and actually demonstrates what Margolin further defines as metacognitive representation within texts:

The narrator may of course recall not only past external events but also internal episodes of his or her own mind, from perception to complex conceptual activity, including past acts of recollection. . . . But metacognition in narrative can, and does, include also instances where the cognitive process being referred to is the current activity of recollecting and/or recounting, in which case metacognition may also involve monitoring or controlling this activity. (279-80)

What’s important for the O’Brien character is not that he can recreate the event exactly as it happened, but that he can re-invent it through his memory and his writing so that it feels now as it seemed then, an experience of physical disorientation, lost in “a great ghostly fog, thick and permanent,” where “[t]here is no clarity” (Things 82).

O’Brien’s portrayal of the narrator’s consciousness may be almost perfectly described by Daniel Dennett’s “Multiple Drafts” model of consciousness. Like Damasio, Dennett rejects the notion that there is one central brain structure where “the many strands of sensory processing experienced in the mind . . . all ‘happen’” (Damasio 94).
Whether during an active experience or in a relived one, memory cannot be described using the “usual metaphor:” “a large CinemaScope screen equipped for glorious Technicolor projection, stereophonic sound, and perhaps a track for smell too” (Damasio 94). No Cartesian Theater of experience can be found within The Things They Carried, no preserved “film” or “track” of the narrator’s memories. The narrator isn’t presenting an objective, seamless unfolding of remembered experience, as though he were a passive audience to his own life story. Instead, the O’Brien narrator revisits the same memory time after time, only to revise that memory, add to it, delete from it, or deny its status as a memory and express its complete fictionality, as he does with the memory of the soldier he killed in “The Man I Killed” and “Ambush,” a fabrication revealed in “Good Form.”

In “The Man I Killed,” O’Brien fleshes out the story of the dead Vietnamese soldier, telling us, among other things, about how he “was not a fighter. His health was poor, his body small and frail. He liked books. He wanted to someday to be a teacher of mathematics” (125). O’Brien first tells this narrative as though there was time for a personal connection between this dead soldier and him. In “Ambush,” in answer to his daughter Kathleen’s question about whether he had ever killed anyone, he simply remembers, “He was a short, slender young man of about twenty. I was afraid of him – afraid of something – and as he passed me on the trail I threw a grenade that exploded at his feet and killed him” (131). But the ultimate revision to this memory comes in “Good Form” where he admits to the reader that he was a soldier in Quang Ngai, and that

[a]lmost everything else is invented. . . . For instance, I want to tell you this: twenty years ago I watched a man die on a trail near the village of My Khe. I did not kill him. But I was present, you see, and my presence was guilt enough. I remember his face, which was not a pretty face, because his jaw was in his throat . . . . But listen. Even that story is made up. (179)
Dennett’s model of consciousness includes this kind of constant memory revision, be it from active, metacognitive re-examination of past experiences, as seen in The Things They Carried, or through natural revision brought about by the accumulation of new experiences and perceptions. Dennett, like O’Brien, refutes the Cartesian Theater – the notion of a homunculus within us, viewing our perceptions and replaying our static memories in a complete, temporally linear form. What Dennett ultimately suggests, like Schacter and Margolin, is that there is no static consciousness, no such thing as a preserved memory or experience, that our consciousnesses creates narratives that are constantly and naturally being updated and revised. The shifting nature of O’Brien’s narrative world, both topographically and temporally, and the O’Brien narrator’s unwillingness, or inability, to play it straight with the truth about what actually happened illustrate modern cognitive scientists’ beliefs about the nature of our conscious minds and our memories.
CHAPTER III

IT WAS FATHER, ON THE LAWN, WITH THE GARDEN FORK:

DETECTING THE STORY IN MARK HADDON’S THE CURIOUS INCIDENT OF THE DOG IN THE NIGHT-TIME

Part I. Stories of “Difference”

Mark Haddon’s The Curious Incident of the Dog in the Night-Time is a strange kind of detective story in many ways. In a brief review for Time, Lev Grossman called it the “year’s most unusual mystery novel,” though it may have been the year’s most unusual novel period. Reviews and critical articles on Haddon’s best-selling novel and Whitbread Book of the Year for 2003 turn up in a variety of interdisciplinary and medical journals: Disability and Society, Literature and Medicine, Learning Disability Practice, Intervention in School and Clinic, Canadian Medical Association Journal, and Journal of the American Medical Association. The novel was discussed in Autism: The International Journal of Research and Practice by autism expert Simon Baron-Cohen. In her review for the New York Times, Michiko Kakutani’s review for the New York Times compared The Curious Incident of the Dog in the Night-Time to “one of Oliver Sacks’s real-life stories.” In works like The Man Who Mistook His Wife For A Hat, Sacks presents case
studies of neurological difference collected from both historical anecdotes as well as professional clinical experiences. V.S. Ramachandran covered similar territory in his book *Phantoms In The Brain*. The “characters” in their stories, actual people suffering from real cognitive disorders, are not only tragic and interesting but have helped both men advance neurological understanding of the normal functioning of a healthy brain. Sacks’s and Ramachandran’s tales of neurological difference are like detective stories in which our heroes, the neurologists, work with clues such as a man’s mistaking his wife for a hat, or another man’s thinking his parents are impostors, and then deduce that their patients’ damaged temporal lobes must have something to do with facial recognition (Capgras’ syndrome). Kakutani’s astute observation invites further comparison between the stories of Sacks’s and Ramachandran’s patients, and Haddon’s protagonist, fifteen-year-old Christopher Boone, as told by himself. Like the patients, Christopher is cognitively different, and, like the neurologists’ stories, Christopher’s narrative makes it possible to deduce a great deal about normal consciousness.

Neurology’s favorite words are ‘deficit’” and “dysfunction,” writes Oliver Sacks, and true to form, most of his stories begin with a patient suffering from some deficit or cognitive difference (3). Ramachandran begins his book with short synopses of a cross-section of these patients: a man suffering from temporal lobe epilepsy describes his conversations with God; an amateur athlete who lost his arm in motorcycle accident experiences vivid physical sensations in the phantom limb; a nurse with a blind spot in her field of vision often finds that blind spot filled in by visions of Warner Brothers cartoon characters; a schoolteacher that suffered a stroke which paralyzed the left side of her body insists that not only is her left arm not paralyzed, but the inert arm in the bed
with her belongs to her brother. A librarian from Philadelphia had another type of stroke that induced a fit of laughing that lasted an entire day and eventually resulted in her death. Arthur, “a young man who sustained a terrible head injury in an automobile crash[,] . . .] soon afterward claimed that his father and mother had been replaced by duplicates who looked exactly like his real parents” (1-2).

Haddon’s novel begins similarly, with Christopher describing, sometimes even listing, his differences and deficits. His own admission of his difference includes that he goes to a school where “[a]ll the other children . . . are stupid,” and have “learning difficulties” or “special needs” (Haddon 43). He is aware that he is different somehow, and, though he lacks a specific label to apply to himself, can articulate some of his “Behavioral Problems” in list form (Haddon 46). Some of the more telling deficiencies that he lists are “Not liking being touched,” “Smashing things when I am angry or confused,” “Groaning,” “Not noticing that people are angry with me,” “Not smiling,” and “Saying things that other people think are rude” (Haddon 46-47). Only vaguely aware of his difference, he is keenly aware of his deficits. He finds interacting with people incredibly confusing, often due to his difficulty with interpreting their facial expressions because “people’s faces move very quickly” and they “do a lot of talking without using any words” (Haddon 3, 14). He claims he cannot understand “proper novels” as well as metaphors, even suggesting the latter should be called lies (Haddon 4, 15). In other statements concerning his verbal deficiencies he says, “I cannot tell jokes because I do not understand them,” “I do not tell lies,” and that he doesn’t do chatting because it involves people saying things to one another which “aren’t questions and answers and aren’t connected” (8, 19, 40). Christopher’s long list of differences is not only consistent
with most of his behavior in the novel, it is reminiscent of those with autism or Asperger’s syndrome.

Haddon has offered descriptions of Christopher that vary from calling him simply “disabled,” as he suggests in an interview with Dave Weich, to more explicit statements about Christopher’s difference. In his interview with NPR’s Martha Woodruff, Haddon said: “If he were diagnosed, he would be diagnosed as having Asperger’s syndrome, which is a form of autism.” Most reviewers connect Christopher’s particular cognitive difference to autism or Asperger’s Syndrome, even though a specific diagnosis never occurs anywhere in the novel. In his interview with Woodruff, Haddon reveals that he was careful not to label Christopher as having either autism or Asperger’s because he feels that “as with most people who have a disability, I don’t think it’s necessarily the most important thing about him.” In the Weich interview, Haddon relates an anecdote about an incident that occurred at the office of a publisher who eventually decided not to publish the book: “We were sitting around in their offices talking, and someone mentioned autism and Asperger’s, and this woman said, ‘Oh, I didn’t realize there was actually anything wrong with Christopher.’” It was a reaction Haddon “treasured,” because it got at what he was trying to accomplish with the novel: it’s not as much a “book about disability,” as it is a “book about books, about what you can do with words and what it means to communicate with someone in a book” (Weich). In the Woodruff interview, Haddon says that a friend of his, a mathematician by trade, felt that “it’s not a novel about a boy who has Asperger’s syndrome, it’s a novel about a young mathematician who has some strange behavioral problems.” In fact, Christopher’s obsession with math had as much to do with representing common autistic traits than
with Haddon’s own love for numbers. The author admits, “I’m most like Christopher in respect of his math. Most of that came straight out of my own head” (Weich).

Since the novel is narrated by Christopher, it represents his understanding of his experience and demonstrates his ways of shaping experiences into narratives that can then be shared with others. Though full of humorous digressions and anecdotes reflecting Christopher’s difference, a dramatic, almost traumatic narrative lurks just beneath the surface. The novel begins with the murder of Wellington, a neighbor’s poodle. Moments later Christopher tells us, “This is a murder mystery novel” (4). He doesn’t like “proper novels” because “they are lies about things which didn’t happen,” but he does like “murder mystery novels” which are like “a puzzle” (Haddon 4, 20, 5). Christopher explicitly states that the kinds of stories that he “likes” – the kind that make sense to him and that will eventually help him make sense of his experience – are detective stories. In the course of writing his story, Christopher moves from solving a traditional mystery, the whodunit, and graduates into puzzling out the enigma of everyday human interaction, solves the mystery of who killed Wellington, and uncovers the mystery of his “dead” mother and his lying father. The catalyst of this mystery may be Wellington’s murder, but the question at the heart of Christopher’s story is how he will put his life back into order once he discovers the potentially destructive behavior of his parents. His story is a post hoc explanation, a tool from within himself to solve the mystery that is his dysfunctional family and his own cognitively challenged life.
Part II. The Sameness of Stories

It’s this move away from the murder mystery and towards the exploration of the ordinary that begins to turn Christopher’s story of difference into one that can be read, recognized and empathized with by most readers. Approximately half way through the novel, Christopher finds a bundle of letters written to him by his mother – letters that have been kept from him by his father who has perpetuated the lie that Christopher’s mother is dead as opposed to the truth that she has left them for Mr. Shears. At this point, Christopher’s narrative turns on itself and begins to show that while he may suffer from some sort of cognitive deficit, he may not be as different or as deficient as he initially presents himself.

Underlying all of these revelations is Christopher’s use of narrative to construct an explanation of his experiences. David Herman explains that “narrative functions as a powerful and basic tool for thinking” in normal cognition for a variety of purposes, including to “produce and interpret literary texts,” “carry out spontaneous conversations,” “create and assess medical case histories” and “provide testimony in court” (“Stories” 163). Herman’s laundry list of cognitive uses for narrative in everyday life not only shows how Christopher stories in his life, but highlights the ways in which we all use narrative to order our own conscious lives. Cognitive narratology is concerned with the production of these personal narratives and the distinctions between what Peter Barry, in his introduction to narratology in Beginning Theory, labels “story” versus “discourse” (223). For all human beings there is a story of our lives, a temporally ordered, factual account of “the actual sequence of events as they happen” (Barry 223). The discourse of those events, how they are “edited, ordered, packaged, and presented,” is what “we
recognize as a narrative” (223). What is of ultimate interest to us isn’t Christopher’s story of difference, but how his discourse reveals his sameness in the human need for narrative.

The novel can be seen as a frame tale, where Christopher’s discourse frames his story, and where his discourse becomes the novel itself. Christopher tells us in Chapter 7 that he does “not like proper novels,” because “[i]n proper novels people say things like, ‘I am veined with iron, with silver and with streaks of common mud. I cannot contract into the firm fist which those clench who do not depend on stimulus,’” a passage that leaves him unpleasantly confused, and seems to speak to his inability to interpret literary texts (4-5). Tellingly, this passage is actually a slight misquotation from Virginia Woolf’s The Waves, a far cry from the orderly and well-structured Sherlock Holmes novels that Christopher emulates, not only to help him write his own story, but to also help him navigate his daily life. Christopher is able to interpret texts, a fact that becomes clear when he finds the shirtbox full of letters. He immediately recognizes his mother’s handwriting, saying: “I only know 3 people who do little circles instead of dots over the letter i. And one of them is Siobahn, and one of them was Mr. Loxley, who used to teach at the school, and one of them was Mother” (95). When he finishes the letter, he arrives at conflicting interpretations. Most critically, Christopher had been told by his father that his mother died of a heart attack but the letter was written “18 months after Mother had died” and postmarked from London, even though “Mother had never lived in London” (98). Christopher tries to come to some conclusion about this new “mystery” (99). He wonders “whether someone else had written the letter and pretended to be Mother,” or whether “the letter was in the wrong envelope,” or even if “perhaps it wasn’t a letter from Mother” but “a letter to another person called Christopher, from that Christopher’s
mother” (98-99). Returning (or retreating) to the detective narrative framework supporting his story (and his discourse), Christopher sees that there are now two mysteries to be solved, and decides not to think about the letters just yet because he “didn’t have enough information and could easily Leap to the Wrong Conclusions like Mr. Athelney Jones of Scotland Yard” (99). We often encounter these italicized descriptions of Christopher’s actions, marking places where he is organizing discourse and presenting story in terms of a detective narrative. This pragmatic use of narrative produces his novel, and makes use of narrative conventions to understand and explain his own actions within that discourse. It isn’t until six days later that Christopher is able to sneak back into his father’s room and examine the letters at length; one has to wonder if Christopher has waited to give himself time to adjust to the consequences of the possible solutions to this new mystery.

Once he’s finally able to return to the letters, immediately after reading the fourth letter, Christopher writes, “Then I stopped reading the letter because I felt sick. Mother had not had a heart attack. Mother had not died. Mother had been alive all the time. And Father had lied about this” (112). Though he has not read all of the letters in the shirtbox, and thought the letters he has read have not been in chronological order, he has employed a sophisticated interpretation of these texts to arrive at a discourse that explains their presence beneath his father’s bed, a story nowhere hinted at within the letters themselves; in doing so, he has assigned “causal relations between events” (Herman 175). Herman further explains that “[t]o establish identity over time, producers and interpreters of narrative must use a cause-and-effect algorithm to map storyworld occurrences onto more or less radical changes in the nature, appearance, or behavior of
participants in the situations and events being recounted” (175). The letters have introduced a need for Christopher to reinterpret the behavior and nature of his father and mother, and to call into question the narrative of his life up to that point concerning his parents’ relationship. Moreover, his presentation of the letters in their entirety, in italics, reveals yet another interpretation of a literary convention: that of the epistolary novel. Christopher abandons the detective framework he has used until that point and shifts to epistolary form, a move that demonstrates a subtle understanding of the shifting nature of his own discourse beyond the limits of its original detective frame.

In line with Kakutani’s view, Christopher’s story can also be read like one of Sacks’s case studies: a narrative prompted by an effort to “create and assess” a case of cognitive difference. However, the way in which Christopher’s discourse presents that difference hints at a more meaningful similarity to normal cognition and behavior established through his use of narrative. As shown earlier, Christopher begins his discourse by frequently drawing attention to specific differences and deficits without labeling himself. However, in Chapter 163, Christopher describes an odd sort of test administered to him when he was younger that provides a vital clue for a diagnostically minded reader. Julie, his teacher, shows him a tube of Smarties candy and asks him what he thinks is inside. Christopher, as any of us would, answers, “Smarties” but then Julie removes the top from the tube and tips it upside down to reveal “a little red pencil” is actually inside (Haddon 115-116). The real test comes when Julie asks Christopher, “If your mummy came in now and we asked her what was inside the Smarties tube, what do you think she would say?” (116). Christopher unhesitatingly answers, “A pencil,” explaining to us that he answered that way when he was little because he “didn’t
understand about other people having minds” (116). In his book on autism, *Mindblindness*, Simon Baron-Cohen explains how autistic social behavior is impaired because of their failure to develop a “Theory of the Mind,” which allows cognitively normal people to readily infer “the full range of mental states from behavior” of others (51). One test that determines whether or not a child has a functioning Theory of the Mind is the “Smarties test” (Baron-Cohen 71). Haddon’s description is a faithful representation of the diagnostic test Cohen details, and for children answering as Christopher does, can indicate an impaired Theory of Mind, a possible indication of autism.

Haddon lifted the Smarties test almost verbatim from autism research; Christopher’s inclusion of the test at this juncture reveals it as a vital clue in his own medical assessment of himself. In the chapter before this, Christopher found and read the letters from his mother that his father hid from him and figured out his mother is not dead and that his father must have been lying. Christopher’s reaction is not what would we expect from an autistic child, nor what we would expect from Christopher, given what we have learned about him up to this point in the novel. He curls up in a ball and vomits on himself but, contrary to what he’s suggested in his list of Behavioral Problems, he doesn’t “scream” or “smash things” because he is “angry or confused” (46). He also doesn’t groan, and though we’ve seen him hit his father and a policeman already just because they touched him, he never physically lashes out at his father – not even when his father puts his hand on Christopher’s shoulder, not when he lifts him up and sits him on the side of the bed, and not when he undresses Christopher and makes him walk to the bathroom
Christopher states what his father did to him, and, with almost haunting clarity, tells us, “And I didn’t scream. And I didn’t fight. And I didn’t hit him” (Haddon 115).

Immediately after that scene, Christopher relates his earlier failure in the Smarties test and comments that he doesn’t feel the same difficulty understanding other peoples’ minds now because he “decided that it was a kind of puzzle, and if something is a puzzle there is always a way of solving it” (116). Displaying his confidence in deciphering these puzzles – other minds – he goes through a short explanation of how they are like computers, showing how this helps him to understand people better now that he is older. Christopher suggests that he knows what failing the Smarties test can mean, and, moreover, he presents the chapters immediately proceeding and following that discussion as evidence for how he doesn’t suffer from an impaired Theory of the Mind as much as he used to.

Particularly revealing is his description of other peoples’ minds, which he likens to a “puzzle,” the same metaphor he uses for the detective novel framework of his own story. Early in the novel, Christopher says one of the reasons he finds people confusing is that they “often talk using metaphors” (15). He takes the time to supply his own definition: “The word metaphor means carrying something from one place to another, and it comes from the Greek words μετα (which means from one place to another) and φέρειν (which means to carry)” (15). It is important to note that Christopher’s definition is relevant to his own use of metaphor in his story. Christopher’s frame metaphors, the detective novel and the puzzle, represent his life, and can be read as carrying him from one place where he is trying to discover the identity of Wellington’s murderer, to another where he is trying to puzzle out the behaviors of his father and mother. Though he has
stated that he dislikes metaphors, his own use of the puzzle metaphor extends beyond its initial use – to describe a detective story – and becomes a metaphor with widening implications that he applies to human minds, and, indeed, to the entirety of his discourse. Christopher assesses and acknowledges his own differences and deficits in a particular and specific way that he then challenges through the descriptions of his actual behaviors within his discourse.

As Herman’s list of functions of narrative would predict, if Christopher is able to use narrative to “produce and interpret literary texts,” and “create and assess” his own cognitive differences, he should also be able to participate in “spontaneous conversation” (“Stories” 163). In fact, Christopher’s statement that he can’t do chatting is as mistaken as his previous declaration that he doesn’t understand proper novels. There are multiple instances early in the novel of “spontaneous conversations” in which Christopher engages quite adeptly in “chatting,” and displays a narrative cognition ordering his chatting into something less random and more conversational. As he begins his investigation into Wellington’s murder, Christopher finds himself questioning his neighbors. One of the first people he talks to is the mother of the black family four houses down on the same side of the street as him and his father. In the middle of talking with her, he returns to his italicized descriptions of detective behavior to help guide him through this conversation. Because she isn’t telling him anything helpful he decides to “do what is called Trying a Different Tack” and turns the conversation suddenly away from the night Wellington was killed to asking whether she knew of someone “who might want to make Mrs. Shears sad” (Haddon 37). Later, in the first of two talks with an inquisitive neighbor, Mrs. Alexander, Christopher begins by asking her point blank, “Do you know anything about
Wellington being killed?” (41). When it becomes apparent that she either doesn’t know anything or isn’t telling him, he finds himself engaged in “chatting” and covers topics as diverse and unrelated to the investigation as his age, his pet rat Toby, orange squash, Battenberg cake, the color yellow, and, finally, biscuits (Haddon 41). Encountering Mrs. Alexander a few days later outside the shop down the road from his house, he resumes his conversation, telling her he’d run away before she brought the biscuits because he was afraid she’d call the police. As he explains his investigation, suddenly he’s off and chatting again.

Hence we see Christopher capable of maneuvering himself in conversation ranging from the mundane (computers, mathematics, and his favorite color red) to subjects as dramatic as his mother’s “death” and her extra-marital, sexual involvement with Mr. Shears (Haddon 55-61). In the midst of the conversation, Christopher twice pauses to draw upon narrative frameworks that enable him to participate in this conversation. The first, in a move that resembles foreshadowing, is that he “saw 5 red cars in a row,” “ma[king] it a Super Good Day” and he “knew that something special was going to happen” (Haddon 53). This personal, mini-narrative gives Christopher the courage to begin speaking with Mrs. Alexander, as he says when he first encounters her: “Then I thought that this was a Super Good Day and something special hadn’t happened yet, so it was possible that talking to Mrs. Alexander was the special thing that was going to happen” (Haddon 55). Later, he combines the detective story frame that was functioning earlier (in his encounter with the black mother at number 44 and in his interpretation of his mother’s letters) with his own “Super Good Day” narrative, and decides to question Mrs. Alexander about Mr. Shears, observing, “if you are a detective
you have to *Take Risks*, and this was a **Super Good Day**, which meant it was a good day for *Taking Risks*” (Haddon 57). Christopher shrewdly manipulates both his internal narratives, allowing him to take part in a spontaneous conversation with Mrs. Alexander. In fact, he controls the conversation, leading to the first major piece of evidence in the larger murder-mystery narrative that he is constructing: that his mother and Mr. Shears were “doing sex” (Haddon 60).

Herman, drawing on the writings of Bradd Shore, and defining story and narrative in terms that contrast the narratological bent given to them by Peter Barry with a more cognitive leaning, explains that the idea of a

“story” itself spans both an abstract cognitive structure and the material trace of that structure left in writing, speech, sign-language, three-dimensional visual images, or some other representational medium. . . . [O]n the one hand, the term *narrative* “refers to the activity of adjusting and creating reality through talking it out”, i.e., the activity whereby people use stories to “make sense of their worlds ‘on the fly.’” . . . On the other hand, *narrative* “also refers to the instituted result of this structuring process” (Herman “Stories” 170)

In other words, there are the stories we tell ourselves continually within our own minds in order to give order and reason to our temporal experiences and structure our conscious identities, and then there are the stories that are produced by us through a representative medium, through speech or writing, for example. Christopher’s use of story-telling in the former category is only fully realized in the latter. He doesn’t seem to be able to construct the stories he needs to order his life as it occurs; it is only later, as he writes his “story,” that he is able to adjust and create his idea of reality by talking through it. Herman notes that “narrative is a resource for closure” and that “[a]ny particular telling of a narrative has to end, even if the narrative being told is presented as unfinished or unfinishable” (173). What is interesting in Christopher’s case is that the murder mystery is solved
approximately half-way through the novel. Christopher’s narrative isn’t seeking closure over the death of a neighbor’s pet, but rather for a far more personal crisis. The real mystery is not who is behind Wellington’s murder, but what is going on in the hearts and minds of the people dearest to him: his father and his mother. Why has his father lied to him? Why did his mother leave? Christopher’s story has a carefully constructed narrative order. In three successive chapters occurring at almost the exact half-way point in the novel, Christopher learns that his mother isn’t dead and that his father has been lying to him, reveals his difficulties with theory of mind, and discovers that his father is also Wellington’s murderer. Wellington’s murder has been a red herring. Haddon’s protagonist solves his own murder mystery so that he can go on writing about what it truly puzzling him: the behavior of his parents.

Christopher never pauses to share his own thoughts on his parents’ motives. What explanations we have come from their exchanges with Christopher that he then represents in the story. Christopher’s mother’s explanation comes in her letters. She recalls a physical altercation with Christopher that ended in his throwing a chopping board that broke her toes. She writes to him of how one day shortly thereafter she was watching Christopher with his father, and “looking at the two of you and seeing you together and thinking how you were really different with him. Much calmer. And you didn’t shout at one another. And it made me so sad because it was like you didn’t really need me at all. And somehow that was even worse than you and me arguing all the time because it was like I was invisible” (109). Christopher’s father attempts an explanation after he finds Christopher has read the letters:
I didn’t know what to say . . . I was in such a mess . . . She left a note and . . . Then she rang and . . . I said she was in hospital because . . . because I didn’t know how to explain. It was so complicated. So difficult. And I . . . I said she was in hospital. And I know it wasn’t true. But once I’d said that . . . I couldn’t . . . I couldn’t change it. Do you understand . . . Christopher . . . ? Christopher . . . ? It just . . . It got out of control and I wish . . . (144)

Christopher’s initial reaction to his parents’ explanations is the overwhelming confusion and stunned numbness already remarked upon earlier. It isn’t until Christopher’s father tells Christopher that he killed Wellington that Christopher becomes unable to cope with the continued assaults on his sense of normalcy. Though he doesn’t perfectly understand the nuances of the familial drama that contains him, his father’s admission of guilt in Wellington’s murder overrides the difficulty caused by his mother’s abandoning him; Christopher decides his only recourse is to travel to London and find his mother.

Cognitive psychologist Kitty Klein describes how traumatic experiences are brought into healthy cognition through narrative, which lends those traumas causative explanation. She says that for people like Christopher, who have lived through a traumatic experience that threatens to overwhelm them, “[A]t some point, a true narrative develops in which the structure of the narrative itself provides all the information for making causal inferences, reducing the need to make them explicit” (76). Christopher never has to say that his father hid the letters from him because his mother left him for another man. His story creates the causal relationship through its structure and content; the lack of explicit attention to and wondering about the psychological motives of his parents is a key example of Haddon’s realistic portrayal of Christopher’s cognitive difference.
The novel’s last chapter, Chapter 233 by Christopher’s system, is also one of the longest. In it, Christopher presents the state of his closure as it stands at the moment of concluding his story. His mother has returned home to Swindon, he and his father are working at resolving their tragic misunderstanding of one another, and he has taken his A level maths and finished his story. “In coming to a conclusion,” Herman explains, “tellings mark even the most painful or disturbing experiences as endurable because finite. In such contexts, narrative is a tool for representing events not as over and done with, but as reaching a terminus that imposes a limit on the trauma-inducing nature (and cognition-disrupting) power of the events at issue” (173-174). Klein echoes Herman’s sentiments when she writes, “One of the marvelous features of narrative is that it can transform memories of unspeakably awful experiences into streamlined representations that lose their ability to derail cognition” (65). By puzzling out his story, Christopher has confined his confusion to the limits of the pages he has written. He has articulated the events and experiences beyond his autistic comprehension, explained the mystery of how his father killed Wellington, how this murder was connected to his mother’s “death,” and how they are to begin to live their new lives as a family once again.

Christopher’s story, his use of stories in a variety of cognitive functions, his use of the detective framework and of the puzzle metaphor are all one extended attempt to organize and explain his typically chaotic life into a form where Christopher can “work out the answer before the end of the book” (Haddon 5). He has constructed a discourse that functions as a metaphor for life (the mystery or puzzle), and has given a sort of testimony about his father’s crime, in which Christopher himself acts as lawyer, judge, and jury. Christopher has even created a profile of his cognitive difference that he
assesses, demonstrating its limitations. As Haddon himself said, the most important thing about Christopher is not his difference but how he has used narrative in a variety of typical cognitive functions that have allowed him to unravel the mystery of Wellington’s murder as well to begin to understand, or at least adjust to, his mother’s and father’s behavior. In the meantime increasingly confident uses of narrative frameworks empower him to travel alone to London to find his mother, to succeed in passing his A level maths, and, eventually, to complete his book. Christopher ends his story with a summary of his accomplishments that foreshadow his plans for the future.

And in two years’ time I am going to take A-level physics and get an A grade. And then, when I’ve done that, I am going to go to university in another town. And it doesn’t have to be in London because I don’t like London and there are universities in lots of places and not all of them are in big cities. And I can live in a flat with a garden and a proper toilet. And I can take Sandy and my books and my computer. And then I will get a First Class Honors degree and I will become a scientist. And I know I can do this because I went to London on my own, and because I solved the mystery of *Who Killed Wellington?* and I found my mother and I was brave and I wrote a book and that means I can do anything. (220-221)

What the novel leaves us with is not a clinical account of one boy’s differences, but a story where difference doesn’t make a difference, and deficit adds up to being able to “do anything” (Haddon 221).
CHAPTER IV

THINKING ALL THE TIME: SCIENTIFIC REPRESENTATION OF CONSCIOUSNESS IN IAN MCEWAN’S SATURDAY

Part I. Gut Reactions: Levels of Consciousness in Saturday

Ian McEwan’s latest novel, Saturday, covers a single day: February 15, 2003. This choice of a date is not random, but, rather, historical, as it was a day that saw millions of anti-war protestors worldwide, along with hundreds of thousands of British citizens who swarmed London streets to protest the imminent British and American invasion of Iraq. It was a day when the relative comfort of many Western lives was stirred into communal action, prompted by the seeping, pervading social fear created by the tragedy of 9/11 and the fall of the Twin Towers. And while the novel is obviously politically conscious, it is also highly literary. In having the action of his novel occur over the course of a single day, McEwan is drawing on a well-established literary tradition, one that he acknowledges in an interview with Scott Simon on NPR. Though the obvious “literary precedents” for contained circadian narratives call to mind Virginia Woolf’s Mrs. Dalloway and James Joyce’s Ulysses, McEwan admits to owing a larger debt of inspiration to Saul Bellow’s Herzog, and to John Updike, who, like McEwan in Saturday, is “a great celebrator of the possibilities of fiction written in the present tense” (Simon).
James Wood connects the novel to the work of Don DeLillo, particularly the novel *Cosmopolis*, also set on a single day (32). The comparison to DeLillo could easily be overlooked, but taking into account *Cosmopolis* along with *Mao II*, a 1991 novel eerily prescient in its concern with terrorists and “midair explosions and crumbled buildings,” the influence may be worth noting (DeLillo 157). DeLillo’s *White Noise* is a work concerned with modern society’s accumulation of noise and news, and the diminishing line between them, and their effects of the modern human experience. In his NPR interview, McEwan himself admitted to, like Bellow and DeLillo, being concerned with the “poetry of the white noise” and “the digressive quality of thought” in the representation of consciousness. In fact, an epigraph from *Herzog* begins *Saturday*, drawing attention to some of these thematic elements that will permeate the novel: “what it means to be a man. In a city. In a century. In transition. . . . Transformed by science. Under organised power. Subject to tremendous controls. In a condition caused by mechanization” (epigraph).

McEwan’s scientific precision, his concern with the mechanization of life, and his unflinching exploration into the biological nature of consciousness, have led some critics like George Will to call the book “a materialist’s manifesto” (84). Henry Perowne, the novel’s protagonist, is an explicitly unliterary neurosurgeon, whose thoughts, for James Wood, are “too completely medical” (34). Wood goes on to complain that “McEwan’s steely research glints through the fabric of his narrative” and “Perowne’s tendency to supply medical terminology whenever possible violates the delicacy” of the text’s free indirect style (34). McEwan is indeed well informed on the subject of neuroscience, and his research does shape the text, coloring Perowne’s consciousness, but it is Perowne’s
In McEwan’s list of acknowledgements, the first person he thanks is Neil Kitchen, Consultant Neurosurgeon and Associate Clinical Director at The National Hospital for Neurology and Neurosurgery in London, to whom he is “enormously grateful” (291). McEwan spent two years “with this gifted surgeon at work” to learn first hand “the intricacies of his profession, and the brain” (McEwan 291). Two years of research beside a practicing neurosurgeon brought with it a ripe harvest of insights that made their way into the book, both explicitly and implicitly. Not surprisingly, the novel is heavy with representations of consciousness that align themselves neatly with several contemporary cognitive theories, most notably those of Daniel Dennett, Antonio Damasio, and Walter Freeman. And while the novel is certainly permeated by the scientific knowledge that frames Perowne’s world view, it is not an argument for materialist dogma but rather an exploration of the evolving understanding of the human brain. McEwan presents his protagonist’s thoughts on the mind and matter: “A man who attempts to ease the miseries of failing minds by repairing brains is bound to respect the material world, its limits, and what it can sustain – consciousness, no less. It isn’t an article of faith with him, he knows it for a quotidian fact, the mind is what the brain, mere matter, performs” (McEwan 168). Yet, this is not a novel where every thought can be rationally accounted for. Its climax, the harrowing, violent confrontation of Perowne and his family with a couple of street thugs only incidentally encountered earlier in the day, is resolved partially through the unpredictable, inexplicable emotional power of Matthew Arnold’s poetry, and leads to an
operation where Perowne confronts the limitations of modern science before the mystery of consciousness.

In *Saturday*, McEwan employs a direct, powerful third person, present tense narration, which only occasionally utilizes the past tense, in an attempt to “[balance] the disciplined momentum of its temporal march with the unruly neural networks of inner life” (Lim). In speaking of the dangers of the confinement of the twenty-four hour plot cycle, McEwan admitted that the plot can be “artificially propelled forward,” but that the novel was for him not just about what happens in terms of the action of the story, nor was it about “the texture alone of existence,” (which calls to mind the works of the modernists like Joyce and Woolf), but, rather, it explores the interstices of mind, body, action, thought, and emotion (Simon). As he tells Zadie Smith in an interview, the novel is “a mode of investigation. It’s an open-ended way of looking at our own image, in ways that science can’t do, religion’s not credible, metaphysics is too intellectually repellent” (212).

It can be said, then, that *Saturday* is an exploration of the modern experience and understanding of consciousness, not only in terms of its biologic nature, but also within its socio-historic context, one that is heavily influenced by the fear and anxiety caused by the events of 9/11. Stylistically, McEwan focuses less on the near infinite sensory input and resultant cognitions of traditional narratives, more on the point-of-view, creating what Daniel Dennett simply calls the “observer”: a “conscious mind” that is “taking in a limited subset of all the information . . . at a particular (roughly) continuous sequence of times and places in the universe” (101). McEwan’s novel constructs the point-of-view of Henry Perowne, as one such conscious observer, through the represented mental workings of a human being engaged in living at all levels of consciousness. What
distinguishes this novel from all of its predecessors is that McEwan focuses on the levels of consciousness and how the movement of thoughts and feelings between these levels can account for the digressive nature of consciousness.

Ian McEwan is well aware of the limitations of neuroscience in explaining the full range of experiences that a human being has even over the course of a single day. Echoing sentiments held by a number of theorists and scientists, McEwan ties the use of the novel to the pragmatic representation of consciousness and the study of phenomenology when he says: “I’m interested in how to represent, obviously in a very stylized way, what it’s like to be thinking. Or what it’s like to be conscious, or sentient, or, fatally, only half-sentient” (Smith 213). To McEwan, it is in fiction that the possibilities of consciousness can most fully be conveyed. Neuroscientist Walter Freeman would agree with McEwan. He takes the description of consciousness away from the realm of science, as the full, conscious experience of a human being is necessarily something pervaded by subjectivity and constructed from a particular person’s mental phenomena:

Meaning is . . . a state of mind that we all experience through observations of our own actions and those of others. Awareness is an experience, which in neurodynamic terms is a transient state. Consciousness is the process by which sequences of hemispherewide states of awareness form a trajectory of meaning. Our experiences of trajectories encompass sequences ranging from the strict and orderly flow of logical deduction, through habit or strong concentration, to the turbulence of streams of consciousness in idle play and dreams. We know this through our own streams of consciousness, and through perceiving the representation of others’ experiences and thoughts in drama, poetry, art, films, novels, journals, scientific texts, and the social exchanges of daily life. Unlike the activities of brains and bodies, which we can measure and express in numbers, experiences cannot be represented in tables and graphs. (116)
While instances of meaning, feeling, and even emotion can be described biologically, their complex interactions within our consciousness that form the basis of our experiences cannot be. Or, perhaps more accurately, not as yet. At any rate, the value of neuroscience is in its ability to give us the vocabulary to describe what happens in our brains at certain times, including the physiological and psychological effects of emotion, or of process, like waking up, or memory. The value of fiction is its ability to represent the experience of consciousness through an aesthetically satisfying, cohesive and illuminating narrative. McEwan’s predominant but not exclusive use of the present tense, the lack of deictic terms within the novel, his sentence structures, and his peculiar use of identification tags in dialog are all linguistic tools employed not only to represent human consciousness, but implicitly to suggest that the nature of our consciousness is not as conscious as we like to believe, or as entirely subject to our control and knowledge.

The following passage presents one of McEwan’s explicit statements in the novel on consciousness and time. In it, Perowne resumes driving on a London road closed for the massive peace demonstration that preceded the U.S. and British invasion of Iraq in March 2003, a demonstration that has forced him out of his usual route and into the back alleys, and an event that, coupled with events earlier in the day, has created a growing sense of anxiety within him. Perowne’s consciousness dwells on these concerns stemming from the September 11th terrorist attacks and, now, the impending war:

And the forward motion is a prompt, it instantly returns him to his list, the proximal and distal causes of his emotional state. A second can be a long time in introspection. Long enough for Henry to make a start on the negative features, certainly enough time for him to think, or sense, without unwrapping the thought into syntax and words, that it is in fact the state of the world that troubles him most, and the marchers are there to remind him of it. The world probably has changed fundamentally and the matter is being clumsily handled, particularly by
the Americans. There are people around the planet, well-connected and organised, who would like to kill him and his family and friends to make a point. The scale of death contemplated is no longer at issue; there’ll be more deaths on a similar scale, probably in this city. Is he so frightened that he can’t face the fact? The assertions and the questions don’t spell themselves out. He experiences them more as a mental shrug followed by an interrogative pulse. This is the pre-verbal language that linguists call mentalese. Hardly a language, more a matrix of shifting patterns, consolidating and compressing meaning in fractions of a second, and blending it inseparably with its distinctive emotional hue, which itself is rather like a colour. A sickly yellow. Even with a poet’s gift of compression, it could take hundreds of words and many minutes to describe (80-81).

What is happening in Perowne’s brain while he has these “thoughts”? Can we even call them “thoughts,” in the usual sense of the word, or are they more what Dennett calls “content-fixations,” observations or discriminations of an external stimulus by a portion of the brain, perceptions we sense, without conscious awareness? How or when is he thinking and feeling these things? What does McEwan mean by “mentalese?”

This is one of several times in the novel where the narration reveals the knowledge McEwan gained through his research partner, Neil Kitchen, while at the same time acknowledging modern neuroscience’s continuing deficiencies in fully explaining the medium of thought. For example, while it is agreed by Damasio, Dennett, Steven Pinker, and others that it is incorrect to say that one thinks only in words or only in pictures, it is no more clear to say that one thinks in thoughts, or mentalese. McEwan’s use of free indirect speech allows him to represent this aporia linguistically, and thus circumvent the scientific confusion. Through stylistic devices the novelist represents consciousness at levels we may or may not be aware of, conveying thoughts that are closer to feelings (like the anxiety Perowne associates with “a sickly yellow” or the “mental shrug followed by an interrogative pulse” [81]).
Here and throughout the text, McEwan linguistically underscores what Dennett attends to at length in *Consciousness Explained*. In reading this selection, we are able to assign a specific time and place to these “content-fixations,” in this case, inside of Perowne’s car at the moment it begins to move again. However, as Dennett observes, “their onsets do not mark the onset of consciousness of their content” (113). In other words, while these content-fixations can be traced to this particular time and place in the novel, and can be assigned as having “happened” to Perowne, it is impossible to fix the specific time or place that Perowne becomes fully aware of them, if he ever does. A second can indeed be a long time mentally. In his interview with Zadie Smith, McEwan discusses the experience of time as represented in the novel: “Because you think this is high-value, rich experience, therefore only two seconds are 1,200 words” (215). Along with novelists, neuroscientists like Walter Freeman are keenly aware of the amount of activity the brain can produce in just a second or two. How much time is needed to produce exactly so much neural activity is not exactly known. However, Freeman has proposed that the Limbic System is involved in multiple feedback loops that help the brain produce intentionality and meaning; this system is at least involved in selecting what we become aware of. The loops have no starting point, as such, but one can think of Freeman’s model being a series of interconnected two-way streets where the streets carry sensory information into different neighborhoods – areas of the brain like the entorhinal cortex, the hippocampus, and the sensory and motor systems – which then produce a variety of mental and physical reactions, including consciousness.

Once his car resumes moving, the environment acts upon Perowne and the loop begins. Like Dennett, Freeman and other neuroscientists “ask whether awareness is
present throughout the arc, or whether it arises in one segment of the arc, and, if so, which one? How much time is required for one passage around the intentional arc, and how long after the onset of an action or a stimulus does a volunteer report becoming aware of it?” (Freeman 122). Both Freeman and Dennett agree that “perception takes time,” but how much time, and what counts as perception? Both men cite the experiments conducted by neurophysiologist Benjamin Libet, in which he attempted to measure the “time to awareness,” and determined roughly that there is approximately a quarter to three-quarters of a second between what he called “warning stimuli and learned responses,” those perceptions and the responses to them that involve conscious attention (Freeman 122). While there is still no exact measurement of the time needed for the onset of awareness or consciousness, what is clear is that the “awareness of a stimulus is not simultaneous with the onset of the stimulus” (Freeman 122), and those first few seconds of Perowne’s car resuming movement are more than enough time to house the entirety of his mental reaction, conscious or otherwise.

Part II. The Mind in the Body: Narrating the Nonverbal

The stylistic construction of the novel plays a pivotal role in the degree of McEwan’s accurately representing these sorts of cognitive concepts. The novel is written almost entirely in the present tense, and, furthermore, McEwan chooses to use the present tense, third-person narration to tell his story. The linguistic presence of an “I” in the story, of a first person narrative stance, would grammatically reference Perowne’s speech and thought as reflective and conscious. But, by using the third person, McEwan is able to create a sense of physical, nonverbal, and unconscious narration that Freeman and
Damasio connect to unconscious thoughts, emotions and feelings that arise, at least in part, due to physical body states; by nonverbal narration (and narratives) I mean an unconscious, physical ordering of temporally sequential occurrences into a causative relationship. This sort of physically-based narrative would help animals recognize and remember body states that link healthy food to a “happy” body state, and thus a desire to eat more of that food, or avoid a previously ingested substance that had made them sick. As Damsio says, “Language may not be the source of the self, but it certainly is the source of the ‘I’” (243). For Damasio, humans and animals alike experience a lower level of narrative, one that isn’t conscious and involves “the early sensory cortices (including the somatosensory), sensory and motor cortical association regions, and subcortical nuclei (especially thalamus and basal ganglia)”: all of which are structures physically shared by human and animal brains (242). What happens in these basic narratives is that an object is perceived or “represented,” a creature responds to the “object of representation,” and there is a “state of self in the process of changing because of the organism’s response to the object” that are all simultaneously held in working memory in the early sensory cortices (Damasio 242). This is a purely nonverbal narrative, involving only a perceived object, a reaction to that object, and a perception of how the physical body state of the organism that does the responding changes, for better or worse, depending on its reaction and involvement with the perceived object. *Saturday* can be read as being full of passages that narrate nonverbal, preconscious events, those similar in character to the passage seen earlier when Perowne is sitting in his car and feelings about the state of the world outside swirl in his thought.
More evidence of this sort of narrative of nonverbal thought events can be found at the beginning of the novel:

Some hours before dawn, Henry Perowne, a neurosurgeon, wakes to find himself already in motion, pushing back the covers from a sitting position, and then rising to his feet. It’s not clear to him when exactly he became conscious, nor does it seem relevant. He’s never done such a thing before, but he isn’t alarmed or even faintly surprised, for the movement is easy, and pleasurable in his limbs, and his back and legs feel unusually strong. He stands there, naked by the bed – he always sleeps naked – feeling his full height, aware of his wife’s patient breathing and of the wintry bedroom air on his skin. (1)

Henry wakes in the middle of the night, situated on the border of consciousness and sleep, between conscious reflection and content-fixation, and while this state is most noticeable at just such a time, McEwan extends the same mental narration throughout Perowne’s waking day over the course of the novel’s entirety. This sort of preconscious attention to his body state, or this attention to what Perowne is “feeling” rather than thinking, neatly aligns itself with the ideas held by Antonio Damasio and Walter Freeman about the biological causes and registry of emotion and feelings, and further illuminate the idea of the narrative of preconscious nonverbal events. The mind maintains what is a normal operating “feeling” of these body states: skin temperature, pain levels, a physical limb’s range of motion, the normal functioning of the viscera. When one of these normal body states is suddenly altered, slightly or dramatically, for good or ill – for example, a cut on the bottom of the foot suddenly stimulates pain receptors in the skin, the smell of a dead fish induces nausea in the stomach, or the touch of a lover arouses pleasure – there is a change in the body state to which the mind begins to consciously attend. We experience a “feeling.” For Damasio, a “feeling” can be defined as “that process of continuous monitoring, that experience of what your body is doing while thoughts about
specific contents roll by,” so that without both the mind and the body, there can be no feelings; feelings are the body’s thoughts (145). A feeling like the one Perowne is experiencing as he awakes is a “cognition of our visceral and musculoskeletal state as it becomes affected by preorganized mechanisms and by the cognitive structures we have developed under their influence” – in this case, the waking process brought about, primarily, by the thalamus (Damasio 159). Put simply, McEwan more accurately represents what it is we mean when we say, “It was cold so I woke up.” Similarly, an “emotion” for Damasio is “a collection of changes in body state connected to particular mental images that have activated a specific brain system,” and thus “the essence of feeling an emotion is the experience of such changes in juxtaposition to the mental images that initiated the cycle” (145). An emotion, then, is essentially composed of several feelings, changes in body state that are accompanied by thoughts, conscious or unconscious. In McEwan’s description of Perowne’s awakening and throughout the novel in similar passages, the text attempts to represent that complicated mental interplay between thought, feeling, and emotion, along with linguistically representing a narrative of the nonverbal mind/body state.

McEwan’s choice to start the novel with Perowne waking from sleep may be illuminated by the fact that it has “long been known” that “the reticular formation and the thalamus above it” play “crucial roles[s] in arousing the brain – from sleep, for instance” (Dennett 274). Therefore, the novel’s first sentence gives us a particular and well-studied starting point in the brain and body state of the character. We can say with near certainty that the activity in Perowne’s waking mind at least involves the thalamus and that his body state would be that which would be normally associated with waking from sleep.
However, Perowne is waking unexpectedly in the middle of the night, and as a result, we quickly move away from these “simple” certainties and are plunged with him into the mystery of emerging consciousness and nonverbal narrative. Henry, at some level of consciousness, has to be aware that he, “himself,” is awake and in motion in order for the reflexive pronoun to be used. He is experiencing the familiar and particular body state associated with waking, though not yet thinking or feeling by Damasio’s definitions. He is merely aware, in terms of a content-fixation, that he is awake and moving. We can again observe the onset of this content-fixation; it is clear that his movement in bed marks the beginning of their effect on him. However, like with the nonverbal narrative that arose out of his being in the car during the peace protests, he is again not fully conscious of the content-fixations and feelings that he is experiencing, nor are we able to say with certainty when the narrative of his waking state shifts into a typical representation of his consciousness. This opening sentence helps to establish the narrative structure for the entire novel, and introduces a virtual second “narrator,” Henry Perowne’s non-reflective, nonverbal and unconscious mind. In other words, this is the reason that McEwan tells the story in the third person. Allowing for the possibility of these narratives of nonverbal mental events, the entirety of the novel can shown to either be directly attributed to him and his conscious mind, or from within him and from within his consciousness, at a level that he is both unaware of and not in control of, but one that is also relating information about him, to himself.

Once on his feet, he feels something that suggests a movement towards the conscious: “It’s not clear to him when exactly he became conscious, nor does it seem relevant” (McEwan 1). In other words, he is aware of not being aware of how long he’s
been awake. In the first sentence–“Some hours before dawn, Henry Perowne, a
neurosurgeon, wakes to find himself already in motion, pushing back the covers from a
sitting position, and then rising to his feet”–the words and structure are strictly factual,
and temporally ordered to relate information and no more (1). The only ambiguous word,
“some” refers to the ambiguity in Henry’s own knowledge; he himself doesn’t know how
long it is until sunrise. The rest of the sentence describes physical action in the simplest
verbs and adjectives. Henry “wakes,” finds himself “in motion,” “pushing back the
covers,” “sitting,” and “rising to his feet.” The next sentence introduces evaluative
adjectives like “seem” and “relevant” in a compound sentence joined by “nor.”
McEwan’s sentences become more complex to reflect syntactically the growing
complexity of the thoughts within Henry’s waking mind. That he realizes “(h)e’s never
done such a thing before” implicates thought, a search through his memory (a necessarily
reflective action) to see if he had ever done such a thing before. It is at this point that
Perowne also experiences his first emotion, at least according to Damasio’s criteria. By
this point in the novel, he’s had the time necessary to have a short series of feelings, those
physical sensations he describes as the pleasurable and easy movement of his limbs and
he has been able to link them to their accompanying thoughts, thoughts that are limited to
his awareness of being awake, and that this is something out of the ordinary. Whatever it
is that has roused him from his slumber, he’s had enough time to link a quick succession
of feelings together and to realize that he is neither alarmed nor surprised. Though it’s an
emotion established by negation – he’s not alarmed or surprised – it is still an emotion, a
further step away from the nonverbal, body narrative that began the novel towards the
fully conscious, awake-state that is soon to arrive.
It is possible that it is the strange difference between waking as he normally
would in the morning and as he has here, inexplicably, in the middle of the night, without
a desire to urinate or fetch a glass of water, that acts as the original stimulus to Perowne’s
brain and attracts the attention of the thalamus. Once activated into its “spotlight”
capability, it then recruits the necessary “specialist areas” of the brain to more fully wake
Perowne’s mind and allow him to more carefully and consciously scrutinize his
surroundings and body state (Dennett 274). By the last sentence of this selection,
Perowne finally succeeds in “waking up,” in crossing the border into consciousness, even
if only briefly and temporarily, and McEwan represents this through the awareness and
attention to particular sensory stimuli in the on-going nonverbal narrative (that of his
being naked and feeling the chill air on his skin and hearing the sound of his wife’s even
breathing in her sleep) contrasted with the conscious thought of his habit of sleeping
naked, bracketed in the parenthetical. As he stands there, moving his arms and legs,
feeling the movement of what his body is doing, he is placing those feelings and
emotions that describe body state in context with the thoughts of his waking. The entire
first paragraph actually serves to represent precisely what Damasio defined as
experiencing an emotion: a complex interaction between body state, thought and feeling,
over time.

Part III. Drafting the Mind’s and Body’s Narratives

What can be taken from these sections is that all of these discriminations and
content-fixations do happen and belong to Perowne, in the present tense that McEwan
renders them to us, and it is only later, even if only seconds or sentences later, that they may be incorporated into his consciousness. As Perowne’s conscious mind begins to construct a narrative for his day, it will make use of the necessary or wanted discriminations, continually revising “multiple drafts” that are then subject to further self-reflection and more revising (Dennett 113). His mind will make use of his nonverbal narratives, his feelings and emotions, his thoughts and content-fixations throughout the day in order to arrive at a conscious explanation – a narrative – for what he has seen, done and for what has happened to him.

For example, shortly after Henry wakes in the middle of the night at the beginning of the novel, he stands looking at the sky through his bedroom window, and sees something that is initially unidentifiable. McEwan represents the changes in the levels of Henry’s consciousness by reporting his changing visual perceptions of the event and then linking those discriminations to the feelings that accompany them. The scene begins with Perowne becoming aware of a flash of light in the night sky, when, “in his eagerness and his curiosity, he assumes proportions on a planetary scale: it’s a meteor burning out in the London sky” (12). However, Perowne quickly apprehends that this object is “moving slowly, majestically even,” and, so, four sentences later, in that indeterminate amount of time between his original content-fixation of the flash, and then his flawed perception and awareness, meaning is recreated somewhere in the intentional loop (12). The end result is that Perowne quickly has to revise his first draft of the situation. It’s not a meteor hundreds of miles up into the atmosphere but, rather, “a comet,” “millions of miles distant, far out in space swinging in timeless orbit around the sun” (13). He goes to wake his wife up to share in the unexpected awe of the sight when “he hears a low rumbling
sound” and realizes that a comet would be so far out in space that it would appear stationary in the sky, and that it would not make any noise. Though “only three or four seconds have passed since he saw this fire in the sky,” he’s now changed his mind for the second time, revising the scale of the draft back to “the local,” watching as a burning plane screams through the night (13). These first drafts occur quickly in concurrence with his changing visual perceptions of the event. How much time occurs between each draft and when Perowne becomes aware of them is, of course, impossible to say, but at this point the revisions are quick-fire, and the feelings with each successive draft change just as quickly. From “eagerness and curiosity,” to a “leap of gratitude for a glimpse, beyond the earthly frame” that is “extraordinary,” it devolves into a “nightmare” that disappears from sight (12-14).

While these first drafts of the event occur as Perowne tries to make sense out of what he is actually perceiving out his bedroom window, the final revision of this event doesn’t happen in the bedroom or at that first experience. Moments after watching the event unfold, he’s already castigating himself for his lack of reaction “as he watched people die,” experiencing the first full fledged emotion of remorse and regret connected with the supposed tragedy (22). Shortly thereafter, he goes downstairs for breakfast and meets Theo, his son, and the two of them, through their conversation, begin to revise the event yet again, postulating a possible terrorist attack (31). Throughout the course of the day, Henry continues to learn more about the crash landing – one of the men is “Chechen,” there was a “Koran found in the cockpit,” and the pilots are being held for questioning – and his understanding of and feelings about the situation change accordingly (126). The final draft for this event, the one that ties together what he saw
that morning at his window to what actually happened – the draft that will probably
become prominent in his memory – is created when the news reveals that the pilots are
Russians operating for a company based in Holland, and transporting, at least in part of
the burnt-out cargo hold, American child pornography (184). The pilots are released
without charges, and Perowne is left wondering how this event became so personally
important to him (184).

McEwan stylistically crafts Saturday into a modern representation of the levels of
consciousness, well informed by the theories put forward by neuroscientists and
philosophers like Dennett, Freeman, and Damasio. As the novel comes to a close, Henry
pauses to muse on the wonders of the brain.

For all the recent advances, it’s still not known how this well-protected one
kilogram or so of cells actually encodes information, how it holds experiences,
memories, dreams and intentions. He doesn’t doubt that in years to come, the
coding mechanism will be known, though it might not be in his lifetime. Just like
the digital codes of replicating life held within DNA, the brain’s fundamental
secret will be laid open one day. But even when it has, the wonder will remain,
that mere wet stuff can make this bright inward cinema of thought, of sight and
sound and touch bound into a vivid illusion of an instantaneous present, with a
self, another brightly wrought illusion, hovering like a ghost at its centre. (262)

“There’s grandeur in this view of life,” he thinks (263). There is grandeur in the near
unrivaled complexity and almost infinite capacity of the human brain, and, thus, the
human experience. For now, as the work to explain consciousness is being done by men
like Neil Kitchen, Daniel Dennett, Antonio Damasio, and Walter Freeman, we see it
represented in the works of novelists like McEwan, whose use of language approximates
the movements of the mind. The final demarcation between conscious and unconscious,
or between reflective and non-reflective thought, however, will be left as ambiguous in
the novel as it is in life.
CHAPTER V
CONCLUSION

In the course of this project, I have applied the theory of cognitive mapping to Tim O’Brien’s novel *The Things They Carried* to explore the stylistic construction of the text. Most of the criticism dealing with the idea of place in that novel centers on the historical reality of the text’s depicted places, as shown in Benjamin Golubuff’s “Tim O’Brien’s Quang Ngai” and O’Brien’s own article “The Vietnam in Me.” The theory behind cognitive maps allows us to read the novel for its distortion of concrete spatial description and location, represented in the sense of confusion developed and fostered by the novel’s spatial and metafictional play. Not only does O’Brien frustrate our ideas of truth, fact, and fiction, he also envelops his stories, and through them, the reader, in a hazy, ghost-like world, disconnected from peace-time realities. There are no coffee shops or buildings, no road signs and, often, not even any place names in O’Brien’s Vietnam; we become lost, another member of the platoon, wandering the protean landscape of Tim O’Brien’s oft unnamed war-land.

I moved from O’Brien, an author who explicitly deals with the importance of stories for soldiers seeking to make sense of the chaos that was Vietnam, to Mark Haddon, who explores the need for stories in healthy cognition, and the seemingly universal desire to narrate our own lives in order to make sense of them. The fact that
Haddon’s *The Curious Incident of the Dog in the Night-Time* focuses on the experiences of Christopher Boone, allowing him to chart in close detail our own modes of thought. Christopher’s story speaks to the human use of stories in everyday cognition. Cognitive theorists like David Herman and Kitty Klein provide models for the ways in which Christopher, and by association, all of us, use stories and story-schemata to perform a variety of cognitive functions, from using narrative to assign causal relationships, to participate in conversation, and to describe cognitive experiences and differences. As demonstrated through Christopher’s unique situation in Haddon’s novel, uses of narrative permeate human cognition and consciousness, in ways relevant to every discipline in the academy.

The last text examined in this thesis was Ian McEwan’s *Saturday*, a topical novel concerned with the growing post-9/11 anxiety infecting Western culture. In preparing for writing the novel, McEwan spent two years in research, working alongside Dr. Neil Kitchen of London’s National Hospital for Neurology and Neurosurgery. This is a novel whose political concerns are not limited to foreign policy and international drama, but, rather, make the domestic stage and our individual psyches the battlegrounds for terror. By understanding modern neuroscientific theories, we are more fully able to appreciate McEwan’s innovations of style. His ways of representing his protagonist’s consciousness are profoundly shaped by his immersion in current neuroscience. My project thus brings out how contemporary representations of consciousness, in novels like *Saturday*, may differ so greatly from psychological novels produced less than one hundred years ago, such as in the writings of great modernists like James Joyce and Virginia Woolf. While psychological novels like *Ulysses*, *Mrs. Dalloway*, and *Saturday* may all fall into the
stream-of-consciousness genre, the language used by McEwan suggests a movement away from the metaphoric representation of consciousness and thought found in the modernist novels, towards a more precise, scientific depiction.

In each case, ideas put forward by the cognitive sciences and modern neuroscience offer a vital context that can greatly enrich our comprehension not only of literary texts, but of ourselves as well. David Herman writes, “[S]tories are found in every culture and subculture and can be viewed as a basic human strategy for coming to terms with time, process, and change,” and, what is at the heart of interdisciplinary discourses like the one presented here is the development of “a strategy for sense-making that contrasts with, but is in no way inferior to, ‘scientific’ modes of explanation that characterize phenomena as mere instances of general covering laws” (2). Like O’Brien’s narrator, we all attempt to anchor and articulate our particular experiences through spatial frameworks that cognitivists call “cognitive maps.” Like Haddon’s narrator, the autistic Christopher Boone, we use narrative daily, in a variety of ways that perform specific social and personal functions described by cognitive and neuroscientific studies. And like McEwan’s protagonist, a neurosurgeon, all of us apprehend the rich texture of a day’s experience, through a series of shifting levels of consciousness that neuroscience is helping to define.

The original intent behind this project was to explore the pragmatic utility of work in the cognitive sciences and neuroscience when applied to literary criticism. It is as Norman Holland and David Herman have suggested, that the more common literary approach of “making sense of stories,” needs to be complemented with the sense of narrative as “an instrument for sense-making, a semiotic and communicative resource
that enables humans to make their way in a sometimes confusing, often difficult world” (Herman “Introduction” 12). Part of fiction’s continuing appeal is its ability to represent the discoveries of modern science beyond the limits of empirical data. Neuroscientist Walter Freeman echoes other scientists like Steven Pinker when he declares that “[u]nlike the activities of brains and bodies, which we can measure and express in numbers, experiences cannot be represented in tables and graphs” (116). Modernist fiction still offers a challenge to scientists who need to account for the sense of the representations of reality created within those texts, a sense that doesn’t neatly conform to scientific principles but may enliven them. These stories help readers make sense of the world, make sense of our own experiences and of each other’s, and they help us grasp the changing nature of our idea of our place in the universe, and how that universe functions in describable and predictable ways. These stories exemplify what Antonio Damasio means by the “Somatic Marker Hypothesis,” and to demonstrate the pragmatic, common sense of Daniel Dennett’s “Multiple Drafts Model” of consciousness. As Tim O’Brien wrote, “Stories are for joining the past to the future. Stories are for those late hours in the night when you can’t remember how you got from where you were to where you are. Stories are for eternity, when memory is erased, when there is nothing to remember except the story” (Things 38).
BIBLIOGRAPHY


---. “Stories as a Tool for Thinking.” Herman, Narrative 163-192.


Jahn, Manfred. “‘Awake! Open your eyes!’ The Cognitive Logic of External and Internal Stories.” Herman, Narrative 195-213.


Klein, Kitty. “Narrative Construction, Cognitive Processing, and Health.” Herman, Narrative 56-84.


