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**The Empathetic Human:
The Story of How Story Increases Cognitive and Social Ability**

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Sponsor: Professor Harry Brown

Reader: Professor Ted Bitner

Convener: Professor Kevin Moore

Abstract

This thesis all started from my reflections on being an English Literature major. I mention this not because it is rare or unique, but rather because realizing my interest in literature and considering the cognitive effect it has on humans initiated my current academic endeavor: writing a very, very long paper. Even though the skills English majors exercise seem like the mundane activities of introverted bookworms, these experiences with language are spectacular phenomena that prove to be, in fact, universal. Many argue that literature has an adaptive function that not only demonstrates why we gravitate toward story and how we learn from them best, but also how it continues to positively benefit us as social beings by improving our ability to empathize. Therefore I strive to make the "mundane" process of thesis writing a journey in which readers will experience and become aware of how language and story affect them as they navigate a mixture of creative examples and research from the realms of evolutionary psychology, social cognition, and more. By the completion of this process, I will have demonstrated how language heightens empathetic ability so it is clear why English majors, for example, live happily ever after with an adaptive and heightened awareness that others were living happily too.

Acknowledgments

I am indebted to those who have motivated me and told me to do what I want to do with the rest of my story. To my family: You have loved me despite my insane academic endeavors. I appreciate this and love you so much in return. To the DePauw University Honor Scholar Team: Thank you for encouraging me, asking me to sleep, and believing in me to finish the work I started. Your encouragement transcends this project and will be the strength I will draw upon in years to come. To old friends: I look forward to catching up soon. Thank you for delivering me food and love.

And thank you to those brave enough to learn from the stories and narratives that constantly surround us--especially the teachers who share and believe this. Your hearts and minds have been opened and the possibilities are now most literally endless.

I. Once Upon a Time . . .

Her eyes refocus on mine, but I know that she has really set her sights on an idea, a conclusion that just seems to make sense. I see her take a deep breath, the kind you take before a moment when you know you have figured “it” out. I raise my hand to lay on my chest patiently so that it is ready for a gentle, casual, but all too prepared rebuttal gesture to accompany the script I had memorized years ago. It happened all within a second, though this conversation always feels never-ending:

“So what are you going to do with that? Will you--”

“--teach,” I say in a sing-songy voice, as if to affirm the other notion while I am at it that all teachers exclusively teach preschool too. I continue, “Yes, yes. I would really love to go to graduate school and become a teacher.”

I believe all English majors have come to the same, perfectly conceivable conclusion that all of the well-intentioned students, family-friends, and prospective bosses in our lives get together to discuss the fact that English majors really should only have one motivation when earning their undergraduate degree--or truly have just one option--and that is to teach English writing or literature after they graduate.

I am an English Literature major at a small liberal arts university. I am constantly put in the uncomfortable position of wanting to resist the stereotypes that forcibly accompany my major like an innocent inmate might want to resist the prison guard attached to his/her/ner¹ wrist. But I really do want to teach and I really do love to read, examine, question, imagine, but more importantly, feel a connection to what literature can do and not just because it is a connection to

¹ Because I have studied the impact of written language on emotion and cognition, I will make it a habit to use this gender-neutral pronoun whenever the situation calls for a non-specific pronoun. I will not address this topic in my endeavors here, but support further discussion on the matter.

literature at all. I decided to be an English major because I believe studying English literature means studying how to be human--a really good one, at that.

Humans are social beings; relationships are sought because it is a part of our human nature, our “coding,” and our natural desires. Empathy, I argue, is the core to every affective human relationship. The ability to relate, to feel another’s emotions, or to understand another’s perspective is crucial to successfully navigating social interactions. We as humans thrive on mutual expression, a natural exchange of ideas or emotion, and more specifically, on learning about the significance of our narratives, our stories, our lives. Learning this is about how stories subtly mold our lives through our “beliefs, behaviors, ethics--how it powerfully modifies culture and history” and how we possess a “set of brain circuits--usually brilliant, sometimes buffoonish--force narrative structure on the chaos of our lives.”² By interacting in varied ways with the stories that have filled individuals, books, and humanity to the brim with comedy, romance, and every variety of genre in between, I believe humans experience increased empathetic ability.

Through a brief discussion about the method and style of this endeavor, a survey of the evolutionary origins regarding our instinct to interact with stories, an exploration of the neurological processes that reveal human’s positive cognitive response to story via empathy, and the application of the positive social effects of written story on human social interaction, I will attempt to bring together research and insights between the disciplines of psychology and literature in order to explore the powerful empathetic abilities we gain from our interaction with story.

² Gottschall, Jonathan. *The Storytelling Animal: How Stories Make Us Human*. Boston: Houghton Mifflin Harcourt, 2012. Print. xvii

Stories are not simply a part of our reality, but also how we organize it, remember it, and respond to it too. From telling stories to hearing them, our mind operates best through the structure of narrative. It is narrative that is very much a part of our cognitive development as empathetic beings and literary narratives that demonstrates to us the human experience by having us experience them first-hand.³ Because it interacts with us cognitively, it affects how we perceive and prioritize our lives. For example, let us say I want to teach a fifth grader about the importance of using the restroom before a long exam. I have a couple of options:

A. “Your bladder, Timothy, is the place that stores all of the processed liquid waste that you will soon dispose of in the restroom toilet. If you do not relieve yourself before a long exam of many hours such as your elementary school state examination, you run the risk of feeling nervous or just full and having to use the restroom during the exam. This may take some time, naturally, and you will not be able to utilize the time you spend in the bathroom to finish the exam and you are not given more time than that allotted to you in order to complete all of the questions. Therefore, please use the restroom before your exam this week, Timothy--don’t forget.”

B. “When I was in fourth grade, just one year younger than yourself, I had one of the most memorable days of my life and it had to do with a long state exam, just like the one you are taking this week, Timothy. I remember sitting, well, squirming, in my desk, getting ready before the bell rang and alarmed us all into a state of attention. I felt a little nervous so I decided to focus my energy on getting settled and ready for the challenge ahead. I walked to my desk, third

³ Mar, Raymond, and Keith Oatley. "The Function of Fiction is the Abstraction and Simulation of Social Experience." *Perspectives on Psychological Science*: 178.

column, second row, directly diagonal from the teacher's desk, and neatly prepared my pencils in the groove carved into the surface in front of me. The bell rang, I jumped, my teacher recited the instructions, and before I knew it I was deep into the reading comprehension portion of the exam. I counted how many stories I had left to read, just four more, and then suddenly realized something that made me stop altogether and panic. My heart started beating so loudly I thought everyone could hear its persistent chugging. I squeezed my small hand into a fist, looked ahead of me, and began to bounce my knee anxiously so as to provide me with a false sense of control concerning my present, pressing situation: I had to use the restroom--and badly!

I quickly thought of all my options and realized that I simply had to stay and finish so as not to jeopardize my performance on the exam. I was a "checker," you see, and always took as much time allotted to me to finish and check my answers. Leaving the classroom was not an option because it simply took too much time, and I did not, of course, want them thinking that I was somehow cheating on the exam in the bathroom! So I kept working, and reading, and answering questions; focusing, and thinking in a circular way that strained me, yet failed to distract me from the alarming ring in my head that told me to run to the bathroom fast. But unlike the morning bell at my school, I chose to ignore it, until I could no longer.

In the middle of reading a story about a girl named Rose who lived on a Tomahawk reservation, I stopped and realized a completely new and unwelcome thought: I could not control it any longer. Like a dog on a hydrant, I was peeing exactly where I was: third column, second row, directly diagonal from the teacher's desk. My teacher immediately told the entire class that we were having a bathroom break, but I supposed I already had one and continued to sit in my seat. I went home and changed and no one in my class ever knew what happened, except for one girl sitting behind me. The ironic part of my story, Timothy, is that she later attended my middle

school, my high school, and my university! Today we think back to that day and laugh about how important it is to use the restroom before a long exam so you will not have to be in the same goofy position I put myself in that one day in fourth grade.

The End.”

Which choice, (A) or (B), would you choose as the more effective warning? (A) mimics the expository structure typically lacking story structure. (B), on the other hand, can be identified by its narrative structure. We will soon discover why (B), the narratively structured option is more effective, more relevant to who we are, and how it influences our empathic ability.

From gossip to fiction, the art of storytelling is very much present in our lives and for specific reasons: we respond to stories, they sustain us, and benefit our daily social interactions. We ask ourselves questions like how can we understand story so easily or what about story structure makes it relatable to human nature, and realize that it involves our origins in relation to the origins of story.⁴ Art is very much a social process that involves action, attention, reaction, and provides an exclusively human basis for art.⁵ In this thesis, I will support the argument held by many such as Brian Boyd, that “despite its many forms, art, too, is a specifically human adaptation, biologically part of our species. Art most generally offers concrete advantages for human survival and reproduction, deriving from the act of play, itself an adaptation widespread among animals with flexible behaviors.”⁶

The art of storytelling is far older than writing, but is the basis of what makes story influential, as well as a human universal.⁷ Fictional storytelling, for example, though at some points only existing on a piece of paper or in the mouths of others, causes real positive cognitive

⁴ Boyd, Brian. *On the origin of stories evolution, cognition, and fiction*. Cambridge, Mass.(Belknap Press of Harvard University Press, 2009) 7.

⁵ Boyd, Brian. *The Origin*, 3.

⁶ Boyd, Brian. *The Origin*, 1.

⁷ Boyd, Brian. *The Origin*, 9.

effects that apply directly to our social capacities as it transcends time and distance: “When we experience fiction, our minds are firing and wiring, honing the neural pathways that regulate our responses to real-life experiences.”⁸ When we read about a protagonist in a novel, in other words, we do not simply sympathize, we empathize,⁹ and this is precisely what I seek to demonstrate: despite the folly associated with story, the increased capacity for empathy via narrative is anything but a thing of fiction.

According to the Oxford English Dictionary, “dissertation” is simply a “discussion, debate.” Further definitions explore meanings such as “a spoken or written discourse upon or treatment of a subject, in which it is discussed at length; a treatise, sermon, or the like.”¹⁰ My mission has the benefit of escaping the tight grip of strict graduate-level standards to grow and develop based on the expectations of a senior capstone endeavor that defines the interdisciplinary nature of my fine liberal arts institution.

I have rejected the classic research model to produce my own that, I will debate through my written discourse proves most effective as revealed through my research of human interaction with story and its correlating positive cognitive effect on human ability to empathize. This thesis stays true to the creative and intellectual nature of my assignment because I will not only present the extensive research I have done on my topic, but will also apply creative narrative examples that will appropriately demonstrate how story affects our cognition and further, our ability to empathize.

I will most basically be approaching my thesis as a metacognitive mechanism. It is my hope that the handful of kind-hearted professors and unsuspecting family members that take the

⁸ Gottschall, Jonathan. *The Storytelling Animal: How Stories Make Us Human*. Boston. (Houghton Mifflin Harcourt, 2012) 65.

⁹ Gottschall, Jonathan. *The Storytelling Animal*, 68.

¹⁰ "dissertation, n.". OED Online. March 2014. Oxford University Press. <http://www.oed.com/view/Entry/55436?redirectedFrom=dissertation> (accessed May 12, 2014).

time to read this thesis¹¹ will reflect on how even reading this lengthy paper engages them cognitively in ways that further support my researched conclusions. By exploring evolutionary and psychological theory with my studies of literature and story, what once was simply a bold argument will, right before your eyes, develop into a consilient demonstration of how story positive affects human cognitive and social ability through empathy.

I would be leaving myself vulnerable to criticism if I did not defend the stylistic decisions I have made in the construction of this thesis. My thesis imitates storytelling while providing the research to support my claims. My method for using tone in this endeavor will reflect the varying techniques I will use to present both empirical and conceptual forms of evidence. For example, consider these phrases conveying simple valedictions:

- A. Goodbye!
- B. See ya!
- C. Take care!
- D. See you NEVER.
- E. I'll call you.

The options are endless, but notice how tone may affect how you interpret these phrases in particular: "C." is surely well intentioned, while "D." of course conveys mal intent. The tone of some is marked by its use of colloquial language that seem perfectly reasonable such as "B.," "C.," and "E." In fact, all but "D." seem to have interchangeable connotations unless you do not have a telephone. Yet place "A." and "E" in the context of the sad introduction to a love-sick protagonist in any "rom-com" narrative and you will soon realize how these harmless phrases can transform into negative salutations. For the purpose of this thesis, the tone I utilize will vary

¹¹ Thanks, Mom.

according to the content I organize in certain sections and in terms of my efforts to hold attention throughout.

Storytelling is difficult and something we practice everyday. Most people without learning or social disabilities can differentiate between a “good story” and a “bad story” based on the plot of the narrative and how well it kept the listeners’ attention; in other words, a question of whether it was worthwhile to the listener. In fact, American adolescence, for example, have developed ways to critic storytelling through common phrases like “And then you found ten dollars,” a pretend tag to the story being criticized that stresses this phrase as one that would have made the story more interesting to hear. Another response to “bad stories” is to create a circle with arms outstretched in front of the body like the rim of a trash bin in order to figuratively have the storyteller “throw away” the “bad story.” Narrative presents itself in many forms in our social lives, which makes its effects on human social behavior so apparent.

Brian Boyd delves into the way that narrative form is primarily ingrained in our social interactions in ways that refine our skills and, I would say, reestablishes our social status in that moment. We value effective storytelling skills, the ability to move listeners to a conclusion, and, in fact, make the art of rhetoric, a related field, a core for two millennia the formal education in the West.¹² The education in this field continues to be extremely necessary because even the feat of keeping an audience’s attention proves to be quite the difficult task. A narrative must hold interest and hold attention with the either the presence of looming danger or the presentation of an opportunity; in other words, it must be worthy of taking us out of the present and redirecting our attention.¹³ Just one example of a group that struggles to develop this skill in our population is American adolescent boys. In response to a study done by Maltz and Barker in 1982, Boyd

¹² Boyd, Brian. *On the origin of stories evolution, cognition, and fiction*. Cambridge, Mass.(Belknap Press of Harvard University Press, 2009) 170.

¹³ Boyd, Brian. *The Origin*, 172.

concludes that the sociolinguistic skills that developing boys must learn when interacting with peers is to confront his social challenges, continue to keep his audience's attention, and "successfully get to the end of his story."¹⁴ I am not an adolescent boy, but note that I will execute my thesis with these socially constructed goals in mind. You will notice that I may sparingly use humor and a more approachable tone in the explanatory sections of this work. Though unorthodox in comparison to the typical style of other thesis, the tone I have chosen is intentional and bridges the gap between my purpose and my audience.

For some, a thesis is a means of demonstrating their knowledge and mastery over a subject with hundreds of pages of synthesized knowledge. Yet, in my opinion, though the process of late night binge writing and pounds of coffee provide valuable researching skills and furnishes young adults with high tolerances for exorbitant amounts of caffeine, the true purpose of research is to discover new conclusions and perspectives. And what more is a thesis than hundreds of pages of *bovem de stercore*¹⁵ if these new insights are not shared and taught in the hugely effective form of story. My endeavor in this still very long piece of writing is to do just that: share and teach about the powerful relationship between our interaction with story and our empathetic ability.

Though touring the country with my research in hand would have been very effective in sharing my information with others, my research relates to the power of written story to work well with how we think and digest information naturally and therefore effectively supports my goals through this thesis. In other words, I know the very real cognitive effect a piece of writing like mine can have on my readers and therefore have chosen to write a thesis about the powerful effects of story and language through the demonstration of how powerful this thesis, integrated

¹⁴ Boyd, Brian. *The Origin*, 172.

¹⁵ I frequent Google Translate Latin in order to give me the ability to say what I would like to say within the construction in which I would like to say it.

with approachable, narrative-like voice and integrated writing examples to “walk the talk” and demonstrate what my research has proven to me.

History tells us that early human environments would have facilitated stories about people with whom most would have known and been familiar. This tradition continues to demonstrate itself in human responses to stories as we produce strong responses “almost as if we were witnessing the scene, and had a share in the outcome of their actions.”¹⁶ Our ability to empathize is built into the construction of our storytelling procedures and readers’ awareness of his/her/ner response to a story. My story-like thesis will best teach the phenomenon of story’s effect of improving our empathetic ability. Understanding our role as readers and predisposed humans to story, therefore, is our next crucial step in this journey.

¹⁶ Boyd, Brian. *The Origin*, 173.

II. Exposition: The Narrative of Our Lives

The story of my life, I take her home.

I drive all night to keep her warm and time...

Is frozen.

The story of my life I give her hope

I spend her love until she's broke inside.

*The story of my life.*¹⁷

Although I do not find the boy band sensation One Direction extremely impressive or engaging aside from the shameless dancing it evokes in me when I listen to it on the radio in my car, I immediately thought of this song when considering the perception of narrative in our own lives¹⁸ Raymond Mar simplifies the psychology research of D.P. McAdams when he argues that understanding life through a narrative structure allows humans to apply unity and purpose to their lives¹⁹. When the heart-throb Brits of One Direction sing about defining their lives in terms of the time and love spent with a woman, they imply an understood level of importance to the relationship. Adolescents, often the conductors of modern slang, use “story of my life” in order to describe the frequency of an unfortunate event. The notion is that because this event is so frequent, it most generally defines the speaker’s life story. Transporting this phrase into the realm of romance expands upon the common negative connotation of the phrase and ultimately follows suit with the generalizing, at times over-dramatic simplifications made by adolescents

¹⁷ Yes, I did indeed just cite “Story of My Life.” If you’re hooked please visit the website: CBS Interactive. "One Direction." - Story Of My Life Lyrics. <http://www.metrolyrics.com/story-of-my-life-lyrics-one-direction.html> (accessed May 6, 2014).

¹⁸ Kudos to the music industry for making for this one.

¹⁹ Mar, Raymond, and Keith Oatley. "The Function of Fiction is the Abstraction and Simulation of Social Experience." *Perspectives on Psychological Science*: 184.

when describing their life's purpose. And Harry Style's application of "story" to his life is only one example.

This thesis will explore the specific application of story and its positive influence on human cognitive and social ability via increased empathetic ability, yet there are multiple factors that help us identify how applicable stories are to humans life in general.²⁰ Mar accurately identifies how "literary narratives fundamentally deal with relationships among individuals and the navigation of conflicting desires,"²¹ which clearly identifies why narratives are so relevant to humans: it is about us. Even animated narratives and stories about inanimate objects are typically personified, adopt human characteristics, or are perceived to participate in similar examples of interactions and/or conflict. Receiving these stories in the form of written word also deeply impact the way in which humans are cognitively influenced. In R. A. Zwann's work on language comprehension, Zwann elaborates on how simulation is afforded by language by ultimately proposing that "words automatically evoke neural activations similar to those that occur during perception of the words' referents."²² The neural activations triggered by perceiving a calm, colorful view of the ocean at sunset may be similar to the cognitive process that occurs when perceiving the meaning or thing represented by the words "beach vacation." The process of reading and perceiving narrative, therefore, does not necessarily involve simply understanding informative text about human nature, but rather experiencing it through an interactive process that produces real psychological results.

²⁰ For the purpose of this thesis, I will use "story" and "narrative" interchangeably. Though the distinction can be made between the two identifiers, I believe they are used similarly enough in this thesis to act as similes in this text.

²¹ Mar, Raymond, and Keith Oatley. "The Function of Fiction is the Abstraction and Simulation of Social Experience." *Perspectives on Psychological Science*: 174.

²² As cited in Ibid 180.



Figure 1.

"The Beach at Sunset"²³

Figure 2²⁴.

“beach vacation.”

As I have stated before, I will be applying multiple fields of study to a synthesis of how story positive influences empathetic ability, in order to gain a better understanding of what it means to be human. After all, fiction authors and research psychologists, Mar claims, are both intrigued by the same thing “understanding human behavior and its underlying cognitions and

²³http://hdwallpaper.freehdw.com/0002/nature-landscapes_hdwallpaper_the-beach-at-sunset_12373.jpg (2014).

²⁴ Here, this phrase evokes previous memories and/or thoughts through the connotation of these words both individually and combined.

motivations.”²⁵ As it was once eloquently stated concerning the relationship between linguistics and biology, “Although this interdisciplinary marriage was inaugurated more than 50 years ago, it has not yet been fully consummated.”²⁶ My hope is that the consilient relationship between psychology and literature will most certainly be consummated²⁷ in this thesis in order to provide the empirical evidence for a phenomenon that is not exclusively applicable to the humanities, but to our human condition in general. My favorite conclusion of this brilliant combination? To put it plainly: “The simulation of social experience that literary narratives afford provides an opportunity for empathic growth.”²⁸ A “character-mental model” in literature, Mar and Oatley continue to state, “allows us to know what another might be wanting, thinking, and feeling.”²⁹ It is through this venue that we see both the cognitive and social effects of narrative. Narrative itself characteristically demonstrates this crucial relationship. Most pieces of fiction, for example, venture to comment on the realism of the human experience defined through “the psychology” and “the social.”³⁰ These two foci often give us a reflective look at our individual perspective (psychology) as well as how that interacts, mingles, and sometimes clashes with other perspectives (social). Yet stories are not meant to be literally depict reality.³¹

As an abstraction of the human experience, stories strive to provide a simplified simulation and representation of reality by compressing complex human relations through the selection and identification of specific elements.³² For example, let us say that I am an author describing the introduction to a story about a young girl whose treasured stuffed animal becomes

²⁵ Mar, *The Function of Fiction*, 187.

²⁶ Hauser, M. D., Noam Chomsky, and W. Tecumseh Fitch. "The Faculty of Language: What Is It, Who Has It, and How Did It Evolve?." *Science*: 1570.

²⁷ I wonder what Zwann would say about the referent of Hauser’s word choice here.

²⁸ Mar and Keith Oatley, *The Function of Fiction*, 181.

²⁹ *Ibid.*, 175.

³⁰ *Ibid* 185.

³¹ *Ibid* 175.

³² *Ibid* 176, 177.

enchanted on her eighth birthday and allows her to transport herself between multiple worlds. I would not choose to elaborate extensively on the state of disarray that is her bedroom, the sounds she heard outside on the street as she awoke, or her experiences at school necessarily. Instead, I would choose to focus on what is famously called “Chekhov’s gun” which refers to the common adage that a playwright must not leave a loaded gun on stage if no one will fire it.³³ I may instead choose minor details that comment on Miao’s character and personality, finally slipping in her brief observation that her Teddy Bear, the one she has slept with since she was born, felt warm this morning as if it had a mini fireplace inside of his belly or like he had been sitting on the beach for an afternoon. This fact will call the reader’s attention and represent the common thoughts and daily activities that proceed the climatic elements of our lives.

Most literary pieces of fiction at least convey fundamental truths about humans rather than capitalizing on falsehoods like propaganda might, even post-modern attempts at unconventionally rebelling against narrative and plot structure.³⁴ Knowledge of genre, L. Halasz, M. Short, and A. Varga found, does not influence reader response as much as the content of the literature does.³⁵ Reading narrative, therefore, is not dependent on classification or expectation, but rather the effect of story on the reader.³⁶ The positive effects of these stories only recently uncovered by researchers across multiple fields provides insight into the applicable skills furnished by exploration of narrative text. Individually, the cognitive effects of narrative point toward empathetic gains. Communally, these effects seem to contradict the mainstream interpretation of Darwinism to create an interesting development in social relations. D.S. Wilson

³³ Ibid.

³⁴ I will not be discussing propaganda nor hoax fiction, though I do believe these works most closely relate to influencing cognitive ability. Ibid, 186.

³⁵ Ibid 178.

³⁶ I will, though, delve into a particular researchers adamant view that fiction is the most positively influential genre of literary narrative on humans. Keep reading to find out who! (We will also further delve into the importance of keeping attention.)

also summarizes the positive effect of empathy on our society as he states ““Selfishness beats altruism within groups. Altruistic groups beat selfish groups. Everything else is commentary.””³⁷

This, therefore, is my lengthy “commentary” of the story of how story influences human cognitive and social ability through increased an increased ability to empathize. By following generic plot structure, I will guide a reflective discourse via the Rising Action: The Evolutionary Origins of Story, Climax: How Happily Ever Afters Affect Cognition, and finally through the crucial Falling Action: Applying Empathy to Our Fairy Tales and its Characters before I conclude with the Resolution: ~~The End~~.

³⁷ Wilson, D.S.. "Survival of the selfless." *New Scientist*: 46.

III. Rising Action: The Evolutionary Origins of Story

Not only do humans naturally seek the cognitive and social benefits of interaction with story, but they also possess the inherent physical responses that cater to the advantageous relationship they experience. According to Noam Chomsky, languages across all cultures and ethnicities possess certain universal grammatical structures and universal themes that imply a shared disposition toward stories. He offers the assertion that “the human mind was shaped *for* story, so that it could be shaped *by* story.”³⁸ Likewise, response to narrative structure in our lives is not taught, rather, “narrative reflects our mode of understanding events.”³⁹ Even the act of telling fictional stories has been identified as a human universal.⁴⁰ The construction of our mind, therefore, is conducive to learning and benefiting from social and cognitive lessons gained from text. We, as humans, grow from them, learn from them, and practice them.

We see evidence of our physical and cognitive aptitude for empathy when examining our ability to function as team players, for example, as reflected in anatomical features such as the whites of the human eye that allow us to witness others’ lines of sight.⁴¹ Cognitively, we are capable of identifying and labeling specific cues in a group setting that allows us to know when to laugh, and pick up on more complex and sophisticated cultural cues.⁴²

By examining the evolutionary context of art, the importance and function of social learning, the academic arguments for and against attributing this to evolutionary adaptation, and finally the concrete applicable evidence for narrative function in the context of socio-

³⁸ As cited in Gottschall, Jonathan. *The Storytelling Animal: How Stories Make Us Human*. Boston. (Houghton Mifflin Harcourt, 2012) 56.

³⁹ Boyd, Brian. *The Origin*, 130.

⁴⁰ *Ibid.*, 189.

⁴¹ Wilson, *Survival of the Selfless*, 46.

⁴² *Ibid.*

evolutionary theory, I seek to demonstrate the foundation of story's influence on the human experience.

Jonathan Gottschall appropriately applies the evolutionary function of fiction, for example, to the concept coined by researcher Keith Oatley that literature acts as the “flight simulator of human social life”⁴³ He proposes that “if the evolutionary function of fiction is--at least in part--to simulate the big dilemmas of life, people who consume a lot of fiction should be more capable social operators than people who don't.”⁴⁴ According to Janet Burroway as quoted by Gottschall, “Literature offers feelings for which we don't have to pay” and we experience it “without any of the risks.”⁴⁵ Like a daily basketball practice, humans have the opportunity to exercise their skills as if they were actually playing a real game for a tournament, for example. In The Media Equation, Byron Reeves and Clifford Nass conclude that “knowing that fiction is fiction doesn't stop the emotional brain from processing it as real.”⁴⁶ In fact, some like Simone G. Shamay-Tsoory use the terminology “emotional contagion and simulation” in order to connote the disease-like nature of empathy in terms of its effect on others.⁴⁷ At Dartmouth's Brain Lab led by Anne Krendl, “viewers' brain ‘caught’ whatever emotions were being enacted on the screen.”⁴⁸ By comparing this naturally contagious phenomenon to actually experiencing the emotions personally, it is clear that both experiences reveal very similar neurological processes. This empathetic ability applies directly to the human disposition for functioning in social environments through an application of evolutionary origins to our social behavior.

⁴³ As quoted in Gottschall, *The Storytelling Human*, 58.

⁴⁴ Ibid 66.

⁴⁵ Ibid 58.

⁴⁶ Ibid 62.

⁴⁷ Ibid.

⁴⁸ Ibid.

Fundamentally, it is the motivation to survive that fuels the need for strong human connection and social skills: “[t]o survive the harsh environments of our history, early humans needed to form and maintain groups so that protection from external threats, hunting, gathering, and other necessary pursuits were more likely to be successful.”⁴⁹ Daniel Dennet sheds light on how the mind perceives and seeks clues provided in the present, refines these clues through past stock information, and then transforms them into assumptions for the future which, he argues, is when we begin to act.⁵⁰ This cognition-to-action model gives way via fundamental connections between the methods most effective for human perception/learning and or salient evolutionary needs to apply them in social contexts.

Cooperative engagement between humans, despite strict interpretations of self-ish intentions, reveals itself through “non-zero-sum,” activities involving art such as literature that has “mutually amplifying effects of cooperation.”⁵¹ By using the broad concept of art as a form of play that influences behavior, we see evidence holding human *attention* as a tactic by appealing to human preference for “rich” and “*patterned* information.”⁵² Biologists support the theory of art forms acting “supernormal stimulus” that ultimately give humans a rush of patterns that our minds specifically preference and crave.⁵³ Themes in literature, for example, even literary techniques may replicate the effect of this disposition for patterns, even including forms that exist in spatial conditions and physical processes, to patterns recognized in individuals including their moods, actions, and intentions.⁵⁴ If humans did not use patterns and narratives in order to perceive and organize information, the chaotic overload of stimuli would be meaningless

⁴⁹ Mar and Keith Oatley, *The Function of Fiction*, 182.

⁵⁰ As cited in Boyd, *Origins of Stories*, 162.

⁵¹ *Ibid.*, 87.

⁵² *Ibid.*, 85.

⁵³ *Ibid.*, 94.

⁵⁴ *Ibid.*, 88.

and to us, incomprehensible.”⁵⁵ Likewise, if a stimulus does not change and the pattern is predictable, the psychological process of habituation, said to be a universal response of nervous tissue that causes loss of interest, is automatically activated.”⁵⁶ It is important to acknowledge these transferable characteristics that speak to our attention and disposition for pattern and social navigation. For example, patterns evoke expectations that may be satisfied, overturned, or revised.⁵⁷ “serves as a stimulus and training for a flexible mind, as play does for the body and physical behavior” by repeatedly engaging an individuals brains and eventually “alter their wiring to modify key human perceptual, cognitive, and expressive systems, especially in terms of sight, hearing, movement, and social cognition.”⁵⁸ The effect, therefore, is very real and physiological in its nature and has eventually “ becomes a social and individual system for engendering creativity, for producing options not confined by the here and now or the immediate and given.”⁵⁹

The product of these fundamental cognitive processes involves learning and understanding the positions of others and attuning ourselves to shifting emotions of an unfolding story, for example.⁶⁰ The process of engaging with art involves the social benefits of encouraging others to provide attention while coordinating ways to improve connections with others.⁶¹ Through this natural sharing process, we encounter story after story that embody “prosocial values in memorable, emotionally compelling images, actions, and outcomes” and ultimately teach us more about the shared human experience.⁶² The method of ensuring the sustainable

⁵⁵ Ibid., 89.

⁵⁶ Ibid., 90.

⁵⁷ Ibid., 91.

⁵⁸ Ibid., 86.

⁵⁹ Ibid., 87.

⁶⁰ Ibid., 106.

⁶¹ Ibid., 101.

⁶² Ibid., 106.

reproduction of this effects in our society reveal itself through our preference for pattern and sharing, which ultimately motivate our desire to resume this activity frequently, in order to “modify our neural circuitry over time.”⁶³ With practice, the transferable skills produced by art ultimately provide “[o]ur precise understanding of our actions makes possible our precise representation of human behaviors *and* our precise comprehension of those representations.”⁶⁴ This, ladies and gentleman, is how we begin to empathize.

Research of our evolutionary origins reveal clear mechanism to respond to the common fight or flight scenario. According to Boyd, evolution furnishes humans with general guidelines for varying responses, what he calls “nature’s factory settings,” but for some behaviors we are also provided “fine-tuned choices and wider ranges of options that can be deployed at short and context-sensitive notice make a decisive difference”⁶⁵ The recipe for success evolutionarily, of course, involves defense and reproduction, but more importantly strategies to foster relevant skills. Those creatures with an inclination to practice skills through play or exploration of new experinces in advance when risk is low and resources are available will be more prepared than those without. We have seen too, that humans have a preference for the patterns and organization of narrative and therefore will more happily use their energy to master and apply these skills that will later be needed in “urgent,” “volatile situations” “in attack, defense, and social competition and cooperation.”⁶⁶ Today we find that we are encountered with far fewer experiences involving immediate danger from our counterparts than our prehistoric ancestors, but we see far more instances involving crucial social navigation skills.

⁶³ Ibid., 91.

⁶⁴ Ibid., 162.

⁶⁵ Ibid., 192.

⁶⁶ Ibid.

Our social inclinations as humans build off of our physical and social needs. Just as our visual system responds to color and motion naturally, “So, too, for humans does any pattern that touches the trip wire ‘human’: a form, a face, an expression, an action, an interaction” grips attention and generates a strong response.⁶⁷ “Humans, the most cooperative of vertebrates, have the most efficient and flexibly conditional forms of communication: point, gesture, and especially language.”⁶⁸ Narrative form, therefore, acts as a means of communicating human experience through language. This form of teaching and learning is grounded in our evolutionary need to live within a social context.

According to Boyd, “[e]ven in a schoolless hunter-gatherer society, individuals learn more than 99 percent of fifty core skills with help from others.”⁶⁹ Our inclination to live in social groups benefits not only our immediate physical health through protection, but also cognitive development and strategy. D. Campell’s perspective on human interaction specifically speaks to how “[a]ll social species prosper more together than alone, or they would not remain social, but humans take this to another level, ultrasociality.”⁷⁰ This classification may speak to the many forms of interactive art, including written story, that humans have actively sought and with which we continue to interact. In other words, our “ultrasocial” origins may explain our inclination to interact with multiple forms of narrative, our version of exercising and, in fact, acquiring the skills necessary to engage socially.

According to George Williams, an evolutionary adaptation is a “feature of body, mind, or behavior that exists throughout a species and shows evidence of good *design* for a specific *function* or functions that will ultimately make a difference to the species’ survival and

⁶⁷ Ibid., 163.

⁶⁸ Ibid., 161.

⁶⁹ Hewlett and Cavalli-Sforza 1986 as cited by Ibid., 104.

⁷⁰ As cited in Boyd, *Origins of Stories*, 101.

reproductive success.”⁷¹ Boyd applies this argument to art generally when he argues that “[i]f art is a human adaptation, it has been established throughout the species because it has been selected as a behavior for the advantages it offers in terms of survival and reproduction.”⁷² Yet Steven Pinker, one of the leaders in the cross-sectional studies of language, cognitive science, and evolutionary psychology, disagrees with this assertion about adaptation in his novel, *How the Mind Works*:

Some readers may be surprised to learn that after seven chapters of reverse--engineering the major parts of the mind, I will conclude by arguing that some of the activities we consider most profound are nonadaptive by-products. But both kinds of argument come from a single standard, the criteria for biological adaptation. For the same reason that it is wrong to write off language, stereo vision, and the emotions as evolutionary accidents--namely their universal, complex, reliably-developing, well-engineered, reproduction-promoting design--its is wrong to invent functions for activities that lack design merely because we want to ennoble them with the imprimatur of biological adaptiveness.⁷³

In other words, Pinker admits that his book’s subject “has been about the adaptive design of the major components of the mind,” but that it does not mean that he “believes that everything of the mind does is biologically adaptive.”⁷⁴ From here Pinker continues with the image of the pleasure we have eating strawberry cheesecake, as an example, with his conclusion that “We enjoy strawberry cheesecake, but not because we evolved a taste for it.”⁷⁵ Pink considered

⁷¹As cited in Boyd, *Origins of Stories*, 80.

⁷² *Ibid.*, 81.

⁷³ Pinker, Steven. "The Meaning of Life." In *How the mind works*. New York: Norton, 1997.

⁷⁴ *Ibid.*, 524.

⁷⁵ *Ibid.*, 525.

cheesecake, like written story, what he calls a “brew of megadoses of agreeable stimuli which we concocted for the express purpose of pressing our pleasure buttons.”⁷⁶

Boyd immediately, yet respectfully disagrees with Pinker’s metaphors and conclusion that art is a byproduct rather than an adaptation. According to Boyd, “The cheesecake metaphor fails to explain why in every society the elaborate and often arduous efforts required to produce art have seemed worthwhile.”⁷⁷ To this researcher, his hypothesis fails and contributes to the idea that lessons learned from story are, in fact, not a byproduct, but an adaptation. Boyd disproves Pinker’s reasoning as he hypothesised in terms of cost and benefit. His conclusion: “*If* art involved no benefit, if it earned pleasure, *yet* it had high costs in time, energy, and resources, *then* a predisposition to art would be a weakness that would long ago have been weeded out by the intensity of evolutionary competition.”⁷⁸ By using a “selects against a cost w/o a benefit” model that projects that “*if and only if*” art were “useless,” ruthlessly controlled or regulated societies less inclined to pursue art, should reproduce and be more successful than other expressive societies that encourage expending energy on artistic pursuits.⁷⁹

The reality is there is no society that lacks the presence of artful expression and, in fact, the most successful societies have the most presence of art.⁸⁰ On an individual level, “if the evolutionary function of fiction is--at least in part--to simulate the big dilemmas of life, people who consume a lot of fiction should be more capable social operators than people who don’t.”⁸¹ Boyd finally conclude his argument with an application of his theory as seen through our 21st century lenses: “Our thirst for news about others may not always serve a purpose in our

⁷⁶ Ibid., 525.

⁷⁷ Boyd, *Origins of Stories*, 83.

⁷⁸ Ibid.

⁷⁹ Ibid.

⁸⁰ Ibid., 84.

⁸¹ Gottschall, *The Storytelling Human*, 66.

supersaturated modern environment, but there is every reason to believe that our craving for strategic social information is adaptive: it is universal, present from birth, can be selectively impaired in autism, and served and often still fulfills a clear function.”⁸² Therefore, I will be approaching the argument of how written narrative positively influences empathetic ability with the richness of this disagreement in mind, yet from the perspective that art is a human adaptation.

Now that this pesky disagreement is resolved,⁸³ we can move on to applying how this adaptation of artful expression applies to the story. Later and more specifically I will examine how written narrative is an imperative form for empathetic exploration. Narrative exists through advantage of communication, but more importantly, our need to socialize, communicate, and connect as humans.⁸⁴ Narrative offers us a guide of social information that is immediately applicable to and translates to our realities, our decisions, and more concretely, our actions.⁸⁵

One form of communication that has evolved through human language is written word. This form of narrative enactment is characterized by its flexible and efficient avenue to represent events.⁸⁶ This representation aids the social need for cooperation and makes one of narratives many functions promoting social capital through shared knowledge. Communication through narrative form makes human connection essential because rapid experiential learning is dependent on sharing and collecting the experiences of not just oneself, but many. These mutual exchanges sustain human society focused largely on social inclusion and dynamics. Metacognition and our means of perceiving others’ emotion⁸⁷ tells us that “we often *don’t* know about particular items of strategic information; that *others* may know when *we* don’t know; and

⁸² Ibid., 165.

⁸³ By casually disagreeing with one of the most published and acclaimed researcher in his field.

⁸⁴ Ibid., 176.

⁸⁵ Ibid., 163.

⁸⁶ Ibid., 162.

⁸⁷ Again, we will explore this process specifically in the next section. Sit tight.

that we *and* they know what a difference it can make to know or not.”⁸⁸The benefit of literature is that we are given the constraints of details and characteristics relevant to constructing the experience of narrative provided to us.

Narrative provides a series of functions that demonstrates its crucial place in the structure of our societies and also the abilities of the individual. Fundamentally, humans are able to match similar experiences of others and apply this knowledge to other that are not exactly the same.⁸⁹ When narratives offer reveal the cause, the effects, and the details of events, we generate an understanding of how these events occurred and can therefore apply these lessons to our lives.⁹⁰ This function, therefore, not only benefits the individual, but may support Boyd’s assertion that the most successful societies have art, and in this case, a very adaptive function for narrative. Yet narrative is not simply repetition but the sculpting and filtering of what others learn, pass on and find most useful for their individual futures and use.⁹¹ Lois Lowry’s *The Giver*, not only is, in itself, a demonstration of this process, but also addresses this exchange with the process his character Jonas must endure.

“The Giver” was once the “Receiver of Memory” who possesses and eventually shares to only one individual the collective experiences of this dystopian community in case “The Elders” may need to make use of this past knowledge in the future. Jonas receives the memories and eventually plots to leave the community, therefore releasing the memories to the individuals of the community currently living without the depth of emotions, the varying opinions, and diversity of experiences once allowed to individuals before the structure of this community was

⁸⁸ Ibid., 164.

⁸⁹ Antonio Damasio cited in Ibid.

⁹⁰ Ibid., 166.

⁹¹ Ibid.

enforced. Without difference, choice, and privacy, the society functions with controlled, collective knowledge.

The process of sharing memories and experiences between “The Giver” and Jonas is a metaphorical representation of the process in which humans participate every day and also accomplish from art forms like narrative and literature. In reality, our experiences vary greatly so as to produce the natural exchange of opinions and stories that enrich our individual and collective knowledge of the human experience. Jonas is essential doing just that: learning how to be human outside of the controlled and maintained confines of his society that has striped individualism and knowledge from his peers.

The relationship between “The Giver” and Jonas involves a connection that is representative of the connection with which we naturally engage. Daniel Goleman explains how “Empathy--sensing another’s emotions⁹²--seems to be as physiological as it is mental . . . the more similar the physiological state of two people at a given moment, the more easily they can sense each other’s feelings . . . When people are in rapport, they can be more creative together and more efficient in making decisions . . .”⁹³ Establishing this connection, therefore, is critical to successful and functional relationships--the leading characteristic of human socio-evolutionary strategy. As seen in *The Giver*, the “combination of benefits, for the teller and the told, and the intensity of social monitoring in our species, explain why narrative has become so central to human life.”⁹⁴ With the skill of literacy, of course, we constantly have the opportunity to learn more about the human connection because this sharing process is accessible and at our disposal simply through the narrative present in literature. Narrative ultimately allows an individual to be

⁹² I will examine this concept of cognitively sensing another’s emotion in the next section.

⁹³ Daniel Goleman cited in *Ibid.*, 104.

⁹⁴ *Ibid.*, 176.

“partially freed from the limits of the present and the self. And our ability to see connections between accounts of the past and present or future action prepared us for some of the core fascinations of fiction.”⁹⁵

⁹⁵ *Ibid.*, 166.

IV. Climax: How Happily Ever Afters Affect Cognition

“Fiction trains us to reflect freely beyond the immediate and to revolve things in our minds within a vast and vividly populated world of the possible” -Brian Boyd⁹⁶

Neuroscientists led by Mbemba Jabbi conducted an experiment that demonstrated the salience of our empathetic emotions. Jabbi exposed participants to three different stimuli:

- a. a video clip of an actor drinking from a cup and showing an expression of disgust
- b. a story read aloud that encouraged participant to imagine him/her walking down the street when a bit of a drunkard’s vomit falls into his/her mouth,
- c. A bad tasting drink that the participant drank

Despite the varied forms of stimuli, the results of the fMRI scanner revealed consistency in terms of the participants’ experiences: “In all three cases, the same brain region lit up (the anterior insular--the seat of disgust).”⁹⁷ This is just one example of an emotion that had a neurological effect outside of the participant having a personal experience with the emotion. Shamay-Tsoory supported this claim when he stated that the “mere perception of emotion in others will activate the same neural mechanisms that are responsible for the first-hand emotional experience and that the motor response corresponding to the particular emotion will be automatically activated.”⁹⁸ Our ability to experience this stimuli offers us endless opportunities to learn cognitive empathy, or the ability to “adopt another’s psychological point of view.”⁹⁹ Fiction, according to Boyd, acts as training in the field of social cognition.¹⁰⁰

⁹⁶ Boyd, *Origins of Stories*, 199.

⁹⁷ Ibid.

⁹⁸ Ibid 19.

⁹⁹ Ibid 18.

¹⁰⁰ Ibid 190.

Although this neurological process is natural and inherently an ability vital to the operation of our socially constructed environment, it is a trait that can be strengthened and fostered in some, while completely absent in others. Our ability to perceive the emotions of others lends itself to the assertion of how important it is that this skill be fostered. This process, is strengthened with exposure just like other physical skills: “When we practice a skill, we improve because repetition of the task establishes denser and more efficient neural connections. This is why we practice: to lay down grooves in our brains, making our actions crisper, faster, surer.”¹⁰¹ According to Gottschall, “cells that fire together wire together.”¹⁰² The specific process, though, originates from our basic ability to learn and transform information for our own benefit.

The discovery of “mirror neuron” seemed to ignite research surrounding humans’ capacity for empathy and the physical system or process and utilizing this strengthened skill. In the 1990’s, Italian neuroscientists including one named Marco Iacoboni, accidentally discovered a psychological process that reinvented the way in which scientists considered precognition. their discovery measured how “specific areas of a monkey’s brain light up not only when they grab a nut, but whenever they see another monkey grab a nut.”¹⁰³ The monkey’s observation gives it the advantage of learning how to approach handling the nut individually as well as predicts what this experience will entail solely through the chimp’s time. According to Jonathan Gottschall, “mental states are contagious” and therefore benefit individuals who, especially those who have not yet experienced what they witness.¹⁰⁴ Marco Iacoboni discusses how mirror neurons translate to the way humans function socially on a day to day basis:

¹⁰¹ Ibid 64.

¹⁰² Ibid 63-64.

¹⁰³ Ibid 59.

¹⁰⁴ Ibid 60.

Mirror neurons in our brains re-create for us the distress we see on the screen. We have empathy for the fictional characters--we know how they're feeling--because we literally experience the same feelings ourselves. And when we watch the movie stars kiss on screen? Some of the cells firing in our brain are the same ones that fire when we kiss our lovers. 'Vicarious' is not a strong enough word to disobey.¹⁰⁵

It seems obvious that because mirror neurons aid humans in our understanding of the intentions of other people, it suggests that the mirror neurons are key to understanding social behavior.¹⁰⁶

Though literature does not provide real humans to observe visually, we see similar processes that demonstrate our ability to have a very real cognitive response to what others, whether fictional or not, are feeling. We physically respond with empathy, in other words, to that which we do not experience personally.

The semester after I returned to my university from studying in Buenos Aires, Argentina for five and a half months was the same semester an actress from the London Stage theatre troupe came to my Shakespeare class. I had just learned to speak Spanish with the very distinct Argentinean accent and had done, what I thought, a good job of assimilating into American culture once again. I was called upon to read a section of William Shakespeare's *Othello* with the vigor and "ahh-gency" of any one of the actors, she explained with her Liverpool accent. I began to read and by the middle, I had slipped into, what I was steadily realizing despite the distraction of my friend's giggles, a poor imitation of a British accent.

Thankfully for me, Iacoboni confirmed that "people have the automatic tendency to imitate each other while interacting." Not surprisingly, when this possibly embarrassing event

¹⁰⁵ Ibid 61.

¹⁰⁶ Iacoboni, Marco. "Face to Face: The Neural Basis of Social Mirroring and Empathy." *Psychiatric Annals*: 236-241, 238.

occurs unbeknownst to you, it is called the Chameleon effect.¹⁰⁷ I am also fortunate because he continues to assert the notion that based off of Tanya Chartrand and John Bargh's study about mimicking and regard for others, "empathetic people tend to mimic what other people do."¹⁰⁸ Because mirror neurons play a large role in our ability to empathize and in order to understand the emotions, we must first have an understanding of the basic neurological process. Iacoboni discusses the thought process behind the construction of their theories:

If empathy is based on an internal simulation...of the emotions of others, one would expect activation of mirror neuron areas, the insula, and limbic areas during both observation and imitation of facial emotional expressions. Moreover, if mirror neuron areas first simulate the facial emotional expressions and then send signals to the limbic system through the insula in order to invoke the emotion associated with the stimulated facial-emotional expression, one would expect higher activity during imitation throughout the whole network.¹⁰⁹

His findings were consistent with his predictions. Though the activity of observing facial expression was not the same as executing the action, the same areas were being exercised: "While subjects observed facial emotional expressions, they activated mirror neuron areas, the anterior insula, and the amygdala...While subjects imitated facial emotional expressions, the activity in all these brain areas increased."¹¹⁰ The neurons, overall, are crucial so as to have a true understanding of another's emotions and "our ability to empathize" overall.¹¹¹ By studying the absence of this ability, we understand even more clearly the importance on this skill to navigate the social cues of our lives.

¹⁰⁷ Iacoboni, *Face to Face*, 238.

¹⁰⁸ *Ibid* 238-239.

¹⁰⁹ *Ibid* 239.

¹¹⁰ *Ibid*.

¹¹¹ *Ibid*.

Iacoboni sheds light on just how vital the process of “mind reading” is by highlighting the experience of a person unable to perceive empathy. A patient who has experienced brain damage “loses the ability to feel a particular emotion, the simulation model of empathy predicts that the same patient would find it difficult to perceive that other people are feeling the same emotion the patient can’t feel anymore.”¹¹² Though the specifics concerning the nature of Autism may not be widely understood, the evidence and acknowledgment of the disorder is reflected in the way that patients navigate their social realm:

If the mirror neuron system is a cornerstone of neural mechanisms for social behavior, the dysfunction of this neural system should lead to deficits in social behavior. One of the most striking features of autism is the social deficit.¹¹³

It is common for children to be enamored with the faces of relatives, strangers, and family while their senses are experiencing an overload of information not yet organizable. Yet eventually, a healthy child will imitate facial expressions displaying a basic emotion. Those children with autism, Iacoboni recalls from his study, “demonstrated a reduced activity in mirror neuron areas during imitation and observation of facial emotion expressions.”¹¹⁴ According to his conclusions, the strong correlation between mirror neuron function and severity of the disease suggested that these measurements may not only speak to the importance of mirror neurons, but also act as a respected measure of autistic impairment.¹¹⁵

I have a twin sister so my life is naturally like a sitcom. Despite the fact that being a twin is not a particularly unique or an obscure experience in itself, my twin sister and I have

¹¹² Ibid.

¹¹³ Ibid., 40.

¹¹⁴ Ibid.

¹¹⁵ Ibid.

captivated audiences of strangers and friends alike over the years with our representation of twinship.¹¹⁶ To others, the novelty of twinship still carries with it the common assertions it has for decades: twins are the same in every sense, twins are exact opposites in every sense, twins can read each other's mind, etc. When we could, especially when it came to dating, Maryclare and I would always do our best to debunk these stereotypes. Yet we could not help but embody a few commonly held beliefs regarding twins at times. From singing at the same time, identifying with Mary-Kate and Ashley, pretending to finish each other's sentences accurately, deciding what "we" wanted to wear every morning until we were in middle school, to even partaking in the classic "switcher-roo," Maryclare and I had fun leaning-into some stereotypes, while rejecting others. Yet the ability we could hardly ever successfully pretend to have was the one we most certainly desired to have: mind-reading capabilities.

Figure 3¹¹⁷:



¹¹⁶ This is, in fact, a word. I had hoped to be cited in the Oxford English Dictionary as having been the first to use it, but I lost to an author published in the 17th century: "twinship, n.". OED Online. March 2014. Oxford University Press. <http://www.oed.com/view/Entry/208125?redirectedFrom=twinship&> (accessed May 11, 2014).

¹¹⁷ Though our heads are close together in this photograph, we were still unable to read each other's mind.

As we have already experienced, narratives produce positive cognitive effects via increased empathetic ability which ultimately translates to improved social ability in the reader's reality. Empathy is not only at the root of what we learn from narrative, but how we apply narrative to our daily lives. Whether we intentionally use literature as a means of learning or simply unknowingly benefit with a main motivation of achieving pleasure like that identified by Pinker's strawberry cheesecake, for example, we do benefit in very real and substantial ways that may get us a little closer to that which we call mind-reading. Though the ability to know what another is thinking would be extremely useful in terms of understanding other perspectives and thoughts, to our knowledge today, this ability has not been proven. Instead, my twin and I now claim we have theory of mind capability.

Boyd describes this skill, one that is not only held by twins, but also all humans for that matter,¹¹⁸ as "a capacity to infer the beliefs, desires, and intentions of others, and a self-awareness that allows us to understand how others might infer our motives and react to our moves."¹¹⁹ Significant research has been conducted measuring human cases when theory of mind is poorly developed like in those patients with Autism. Reversely, research has also identified subjects with Williams syndrome as having high theory of mind and high sociality, while still suffering from impaired general purpose intelligence.¹²⁰ This ability is just one of many factors that contribute to how we perceive the emotions of characters in narratives, how we cognitively experience a beneficial, reflective process in response, and how written word and more specifically fiction positively influences empathetic ability.

¹¹⁸ It is important to note that like any cognitive function, mental disorder and disease affects abilities to function and evaluate situations, especially in a social context like that of theory of mind. There has been extensive research on studying the effects of autism, for example, on human theory of mind. Recently too, there is more available research regarding theory of mind in animals.

¹¹⁹ Boyd, *Origins of Stories*, 46.

¹²⁰ Boyd, *Origins of Stories*, 190.

Though some may criticize the relationship that many readers have with fictional characters,¹²¹ the average relationship between a reader and the narrative is characterized¹²² but the way readers empathize with the experiences held within. As Gottschall stated, readers identify so closely with the protagonists that they experience not sympathy, but more strongly, empathy. The distinction between sympathy, empathy, and identification is a worthwhile one to make in terms of identifying the cognitive effects of narrative. “Whereas sympathy is feeling for someone’s experience and wanting to help him/her/ne, for example, empathy is “having an emotion that is somewhat like the emotion experienced by the target person.”¹²³ Note that this distinction is not defined by feeling the *same* emotion by the observer and the participants. My twin sister and I even, though genetically very similar, cannot confirm that we share the same emotions or process shared experiences in the same manner. Empathy too differs with what some call identification in which “see ourselves as that character and identify these emotions as our own rather than as the character’s.”¹²⁴ Yet the empathy we experience during the narrative-reading process, “we understand a character’s goals through our model of his or her mind, and feel something similar to what the character feels.”¹²⁵ I will explore the details of this cognitive experience and the multiple benefits of this social exchange.

The ability to identify another’s “higher-order tendencies” in his/her/ner behavior, abilities, and personality exercises a human’s skill to predict and imagine behavior.¹²⁶ Yet this beneficial process is not exclusive to in-person social interaction. Mar, Kelley, Heathreton, &

¹²¹ For good reason--fans of anything can get pretty crazy. Don’t mess with a literary fan reader, though, because their sense of reality may be very different from yours. Yet this is a subject for a different thesis.

¹²² No pun intended.

¹²³ Mar, Raymond, Oatley, Mullin, *Emotion And Narrative Fiction*, 823-4.

¹²⁴ *Ibid.*, 824.

¹²⁵ *Ibid.*

¹²⁶ Boyd, *Origins of Stories*, 88.

Macrae admit that the brain seems to preferentially respond to in-person interactions, yet there continues to be a “clearly a shared neural basis for attempting to make sense of real people and for processing fictional representations of persons (e.g., cartoon shapes or characters).¹²⁷

Although it is possible to generate simulations of these events without the presence of fictional simulation, for example, the written narrative provides an alternative advantages that outweighs the benefits of “spontaneous imagination” alone.¹²⁸ According to Mar and Oatley, “narrative materials provide more for the mind than does fanciful ideation. Story engagement is the structure recreation of an abstracted social interaction.”¹²⁹ The process we experience as we respond to exposure to written narrative is a crucial and critical step to the practice and development of empathic ability.

As Elaine Scarry points out, the effects of successful immersion in a literary narrative cannot compete with the multidimensional effects of visual perception, rather it “suggests to the reader a set of perceptual processes that the reader then uses to construct a particular idea or experience.”¹³⁰ Like the over-sized blocks of a child’s toy building set, the structure of this form of communication aids in practice of a very applicable process related to practical life skills by offering some guidance, but largely leaving the creation up to the perceiver. In the case of the building blocks, children exercise spacial skills as well as problem solving skills. Among the plots and twists of written narrative, humans are forced to imagine, simulate, and respond, making this medium extend beyond the basic interpretation of other mediums founded in visual representation. Written narrative instead offers a challenging and beneficial extra step: interpreting word to imagining the events.

¹²⁷ Ibid., 180.

¹²⁸ Mar, *The Function of Fiction*, 183.

¹²⁹ Ibid.

¹³⁰ As cited in Ibid., 178.

One avenue for understanding human behavior is language, which, as a byproduct of human communication, “reflects the shifts our minds uses to make sense of events and their sequence, once we have theory of mind and a capacity for metarepresentation.”¹³¹ Language, therefore, originates from humans and caters to how we best meditate on and comprehend meaning. Yet why how does written narrative create a distraction from the benefits of oral narrative etc? The reading the words themselves play a crucial role in creating a powerful cognition response to narrative.

The text may evoke memory or recreate emotion close to previous experiences. Fictional text may also prompt more “constructive imaginative processes,” via the unique process readers must navigate. Reading, whether through its representative themes or realistic characterization, creates an experience that closely relates to “actuality.”¹³² Yet I would argue that the cognitive responses to written narrative that I will dissect offer a empathy-producing effect that is due to the fact that these narratives are received through text.

Written narrative provides a clear structure through which readers may imagine, problem-solve, and experience. The details and conflicts were all selected by the author so as to provide the context and resources to the reader to experience the simulation thoroughly, whether that includes detail about the characters or description of the scene of a crime. Literature has a huge advantage over oral narrative, for example, because of its unique ability to furnish multiple characters’ speeches and thoughts that ultimately hold the reader accountable for creating and distinguishing these varying perspectives. Modern narrative forms like movies, pornography, campsite storytelling even, all have narrative components and even additional factors such as facial cues and gestures that contribute to the receiver’s emotionally and cognitively response.

¹³¹ Boyd, *Origins of Stories*, 176.

¹³² Mar, *The Function of Fiction*, 180.

Yet written narrative fiction cultivates our imagination by forcing us to create the structures and perspectives of characters simply from the language cues we receive from the text.¹³³ In some ways, the medium of written narrative does the most for us in terms of improving our development by giving us less physical visual representation, yet more exercise cognitively and emotionally.

Firstly, because a part of interpreting literature involves interpreting and inventing narrative stories cognitively and on an individual level, it is important to become familiar with the way humans invent story. I will briefly focus on human development as this, aside from the evolutionary foundation established in the first section, acts as a way of witnessing individual history and early cognitive trends. It is in late childhood that we are able to understand and represent counterfactual versus actual information. Language most certainly has its positive effects on our assumptions, but this ability “does not necessarily derive *from* language.”¹³⁴ Our inclination for “social supposition” comes before our development of “theory of mind, and metarepresentation are far advanced, in the form of pretend play.”¹³⁵ Children in their third year begin to understand the importance of attention¹³⁶ and the role of pattern.¹³⁷ In literature, this skills in exercised as an “ability to detect social and agential patterns.”¹³⁸ Our development, therefore, acts as the precursor to an individual’s relationship to written narrative.

Youth are excellent examples of the imaginative exercise that occurs in response to literature because they are usually not yet taught to conceal their creativity despite fear, learned

¹³³ Boyd, *Origins of Stories*, 190.

¹³⁴ *Ibid.*, 179.

¹³⁵ *Ibid.*

¹³⁶ As having passed the age of three years old long ago, I continue to understand the importance of holding attention. Hence my smattering of researched and comedic use of footnotes.

¹³⁷ *Ibid.*, 183.

¹³⁸ *Ibid.*, 192.

shame, or social norms. Children practice grasping for the real “to work out . . . different behaviors and situations,” yet they quickly become interested not merely in recombining the normal but also in transgressing its boundaries.”¹³⁹ We naturally explore the bounds of story and possibility through our own creations in the form of play. According to Boyd, thought and language provide us tools, whether building blocks or not, in order to re-presentation the real. This in turn allows us to rotate things freely in the mind, exploring them from new angles.”¹⁴⁰ Language provides the words and descriptions that feed into “are already compulsive” need to create pretend events.”¹⁴¹ The way we receive information too is anything but passive, rather, Boyd calls us “highly active reconstructors.”¹⁴²

Empathy is both the human skill that facilitates our understanding of literature through its characters imagined, usually in fiction as we will discuss, and the skill primarily developed from the reading process. By understanding empathy as the imagination of another’s emotion, rather than strictly the observation of an emotion, we see it expose fictional characters as imagined through interaction with a narrative.¹⁴³ This interaction takes form as readers learn “what a character’s goals, plans, intention, and actions are,” and the reader enters them into his/her/ner own “processor.”¹⁴⁴ Readers, therefore, re-interpret and imagine the information provided by the author as one route by which the simulation of experience may take place.¹⁴⁵ The way researchers may measure this occurrence is by witnessing similar brain regions activated “both when moving stimuli are perceived and when these same presentations are imagined.”¹⁴⁶ In

¹³⁹ Ibid., 186.

¹⁴⁰ Ibid., 180.

¹⁴¹ Ibid., 187.

¹⁴² Ibid., 173.

¹⁴³ Ibid.

¹⁴⁴ Mar, Raymond, Oatley, Mullin, *Emotion And Narrative Fiction*, 824.

¹⁴⁵ Mar, *The Function of Fiction*, 180.

¹⁴⁶ Ibid.

addition, “imagined settings and characters evoked by fiction literature likely engage the same areas of the brain and those used during the performance of parallel actions and perceptions.”¹⁴⁷

This perception process benefits readers through the activity and emotional experience of reading narrative.

The practice of empathizing when reading narrative continues to increase our empathetic and therefore social ability. According to Gottschall, we practice in order to lay down grooves in our brains, making our actions crisper, faster, surer because repetition of a task establishes denser and more efficient neural connections.¹⁴⁸ He continues to coin the phrase: “cells that fire together wire together.”¹⁴⁹ When the act of interacting with written narrative is “overlearned,” we similar “control and flexibility” in skill level like any other sport.¹⁵⁰ Like other adaptations that benefit humans, the element of pleasure is “nature’s way of motivating creatures to perform an activity *now*--and . . . to expend energy eagerly in mastering skills and acquiring strengths they might need later in urgent or volatile situations, in attack, defence, and social competition and cooperation.”¹⁵¹ Fiction is also very unique in that it “catches our attention so forcefully that fiction can hold our interest, unlike almost anything else, for hours at a stretch” because it “appeals to our craving for higher-order information.”¹⁵² Thought more saliently associated with explanations for hunter gathering skills, this argument too applies to the advantageous and pleasurable activity of analysing literature. Not only does it appeal to our desires and practice of

¹⁴⁷ Ibid.

¹⁴⁸ Gottschall, Jonathan. *The Storytelling Animal*, 64.

¹⁴⁹ Gottschall, Jonathan. *The Storytelling Animal*, 63-4.

¹⁵⁰ Boyd, *Origins of Stories*, 180.

¹⁵¹ Ibid., 179.

¹⁵² Ibid., 130.

exchanging with others emotions and thought, but it also intensely engages us to benefit from its multiple cognitive functions.”¹⁵³

According to Ingalls, Masson, & Patwardhan, even writings from 1000 years ago made the distinction between everyday emotions (*bhavas*), and literary emotions (*rasas*) defined by its “engagement with literary art.”¹⁵⁴ One of the primary effects of fiction is how it prompts our emotion system toward otherwise rarely acknowledged experiences.¹⁵⁵ In addition, narratives also elicit the recollection of personal experiences through direct relations to the narrative's events and through the cueing of “emotionally valenced memories.”¹⁵⁶ When our narratives clash with others’, we have a better emotional understanding that aids us in appreciating even the differences among people’s varying perspectives.¹⁵⁷

The cognitive and emotional effects of reading narrative positively influences us even after the story is complete. After the completion of a novel, for example, the emotional state induced is expected to influence the cognitive processing associated with another emotional state.¹⁵⁸ Mar expands upon how “employing narrative fiction as emotional primes would provide a more ecologically valid examination of how emotions operate in real-world settings.”¹⁵⁹

With all of these important contributions to our cognitive development and metacognitive knowledge about how this process works, Boyd ponders a crucial question: “why, when we master language and theory of mind so that we can use all our special human understand of social events to tell stories fluently, without needing to act them out, do we still find the

¹⁵³ Ibid., 180.

¹⁵⁴ Mar, Raymond, Oatley, Mullin, *Emotion And Narrative Fiction*, 825.

¹⁵⁵ Mar, *The Function of Fiction*, 183.

¹⁵⁶ Ibid., 824, 818.

¹⁵⁷ Boyd, *Origins of Stories*, 173.

¹⁵⁸ Mar, Raymond, Oatley, Mullin, *Emotion And Narrative Fiction*, 829.

¹⁵⁹ Ibid.

“pretend” stories of fiction so engrossing?”¹⁶⁰ First, let us consider why fiction itself distinguishes itself as a type of narrative sought and enjoyed by humans.

As I began my research, I did not initially make the distinction between non-fiction and fiction in terms of which classification of literature is most effective in evoking empathy in readers. Yet after having completed more research, I realized that fiction was most frequently identified as producing positive cognitive effects in readers. This distinction may be attributed to the motivation of readers before having read. For example, when reading nonfiction, most readers wish to be informed, while when reading a novel, short story, or poem, readers wish to be moved with emotions as the focus and basis of the fiction experience.”¹⁶¹ In “Bookworms versus Nerds: Exposure to Fiction versus Nonfiction, Divergent Associations with Social Ability, and the Simulation of Fictional Social Worlds,” Mar et al. firmly makes the distinction that made literature-buffs around the world leave their quiet reading space to scream with an overwhelming feeling of excitement and disbelief: Mar et al. debunked the stereotype that fiction readers are socially awkward, suggest that “comprehending characters in a narrative fiction appears to parallel the comprehension of peers in the actual world,” and finally, that expository non-fiction does not produce outcomes with similar positive parallels.”¹⁶²

The most basic premise of this study was to measure lifetime exposure to both fiction and non-fiction, as well as performance on empathy/social-acumen measures.”¹⁶³ The results of the first part of the study¹⁶⁴ found that fiction print-exposure positively predicted measures of social and empathetic ability, while those who read more non-fiction print-exposure were negative

¹⁶⁰ Boyd, *Origins of Stories*, 187.

¹⁶¹ Mar, Raymond, Oatley, Mullin, *Emotion And Narrative Fiction*, 822.

¹⁶² Mar et al., *Bookworms versus Nerds*, 694.

¹⁶³ *Ibid.*, 694.

¹⁶⁴ Informal identifiers of tests conducted during this study: Author Recognition Test; The Interpersonal; Reactivity Index; “Reading the Mind in the Eyes” Test-revised; Interpersonal Perception Task-15 (unscripted actions);

predictors. In addition, the second test that controlled for age, experience with English, and intelligence,¹⁶⁵ also revealed that fiction revealed better results when measuring social ability versus heavy non-fiction reader.¹⁶⁶ Empathy scores were also influenced by the tendency of readers to become “absorbed” in a story.¹⁶⁷

The results seemed impossible to some. Even Gottschall, a respected researcher in this field, mentioned after his synopsis of this study that readers should be critical and understand that this information is not “self-evident.”¹⁶⁸ “If anything,” he states, “stereotypes of nerdy bookworms and introverted couch potatoes might lead us to expect that fiction degrades social ability rather than improving them.”¹⁶⁹ Mar et al. seems to respond with their arguments that fiction readers “maintain social-processing skills whilst reading stories, although they are removed from actual social contact during this activity.”¹⁷⁰ The classification of a nerd may embody the socially awkward stereotype because they “remove themselves from the actual social realm while not simulating experience in a fictional one.”¹⁷¹ This may result in negative effects such as non-fiction readers with “impair their social skills.”¹⁷² Bookworms, conversely, by reading narrative fiction, may “buffer themselves from the effects of reduced direct interpersonal contact by simulating the social experiences depicted in stories.”¹⁷³

Because narrative is a reflection of human creation and adaptation, like humans it naturally addresses human relationships: “Narratives are fundamentally social in nature in that almost all stories concern relationships between people; understanding stories thus entails an

¹⁶⁵ Ibid., 695.

¹⁶⁶ Gottschall, Jonathan. *The Storytelling Animal*, 64.

¹⁶⁷ Mar et al., *Bookworms versus Nerds*, 694.

¹⁶⁸ Gottschall, Jonathan. *The Storytelling Animal*, 66.

¹⁶⁹ Ibid.

¹⁷⁰ Mar et al., *Bookworms versus Nerds*, 695.

¹⁷¹ Ibid.

¹⁷² Ibid., 698.

¹⁷³ Ibid., 705.

understanding of people, and how their goals, beliefs and emotions interact with their behaviors.”¹⁷⁴ Reading fiction, in other words, necessitates a practice of understanding social behavior and the complications of navigating human relationships. Stories often contain characters whose goals and intentions change, clash, and develop during the structure of the narrative which means having the capability to organize this information is crucial to our understanding of the work, of our lives, and of how the piece may apply to our lives.¹⁷⁵ Imagine reading Shakespeare’s *Hamlet* without a basic understanding of betrayal and complex familial relationship. This play stretches our understanding of what humans are capable of and causes us to challenge our preconceived notions about relationships, in general.

Mar et al. continues with the bold observation that: “[t]he tendency to become deeply absorbed in a story appears to be related to both exposure to narrative fiction and measures of social ability, providing corroborative evidence for the links between imagination, theory of mind.”¹⁷⁶ At the conclusion of their study, Mar et al. predicts that if the cognitive influence of fiction-reading interventions yield improvements in empathy long term, stories may be an effective tool for educating humans about understanding the diversity that naturally makes up our reality while still very under-stressed in most educational settings.¹⁷⁷ Acknowledging the potential for fiction-induced empathy to affect the perspective (cognitive) and social abilities in groups contributes to the fundamental examples of this phenomenon on the micro-level: the individual.

¹⁷⁴ Mar et al., *Bookworms versus Nerds*, 696.

¹⁷⁵ *Ibid.*, 707.

¹⁷⁶ *Ibid.*

¹⁷⁷ *Ibid.*, 708.

V. Falling Action: Applying Empathy to Our Fairytale and its Characters

As Gottschall states, “Story is where people go to practice the key skills of human social life.”¹⁷⁸ Narrative, and specifically fiction as we have largely read, allows us the opportunity to extend and refine how we organize social information, especially pertaining to character and event-- “individuals and associates, allies and enemies, goals, obstacles, actions, and outcomes-- and to metarepresent, to see social information from the perspective of other individuals or other time, places, or conditions.”¹⁷⁹ Story in a social context, therefore, acts as a unifier and simulator.

According to Gottschall, “Fiction is, on the whole, intensely moralistic.”¹⁸⁰ When considering the most successful pieces of literature, post-modern adaptations that purposely assault the moralistic structure of modern narrative structure do in fact cause the discomfort they were seeking to garner, but quickly lose their appeal to audiences with neurological dispositions for moral equilibrium.¹⁸¹ Though tragedies and dramas may not expose readers to a moralistic win by the protagonist at times, the text does usually retain a message of wrongful defeat for our protagonist, therefore supporting Gottschall’s moralistic theory after all. He continues to defend that “Humans live great chunks of their lives inside fictional stories--in worlds where goodness is generally endorsed and rewarded and badness is condemned and punished” in whatever form of stories they experienced from pornography to poetry¹⁸² This trend, Gottschall seems to say, does not simply reveal a moralistic bias in human psychology, but a reinforcement in our choice of

¹⁷⁸ Gottschall, Jonathan. *The Storytelling Animal*, 57.

¹⁷⁹ Boyd, *Origins of Stories*, 192.

¹⁸⁰ Gottschall, Jonathan. *The Storytelling Animal*, 130.

¹⁸¹ No offense to post-modernists, but I would argue that this includes everyone.

¹⁸² *Ibid.*

exposure.¹⁸³ Yet with every text with which we choose to interact, we exercise the skills and therefore tools that help us to not only live our lives successfully within our community, but to also individually live our lives as better humans too.

As we have experienced ourselves in this thesis, through very real cognitive processes, written narrative affects us and our happily ever afters. We are a species that faceted language around our actions and our natural behaviors as social beings.¹⁸⁴ When humans cooperate, they connect under a unified understanding of emotion and norms that facilitate them¹⁸⁵ One medium that supports and reflects constructive social values in written narrative via its promotion of “prosocial values,” because it allows us to “see from different perspectives,” and because its construction of characters inherently “aids the evolution of cooperation and the growth of human mental flexibility.”¹⁸⁶

Reality presents complex situations, emotions, and a level of risk associated with individual response to peer behavior. Fiction, then, becomes “good for us”¹⁸⁷: the low-risk space of the fictional world offers us new freedom that allows humans to improve their cognitive competency--something readily applicable to social situations.¹⁸⁸ Fiction, after all, aids “our rapid understanding of real-life social situations,” by initiating and maintaining this practice at “high intensity and low cost,” while also furnishing us with the “ability to conceive of alternatives.”¹⁸⁹ According to Daniel Nettle, these conditions make fiction a “superstimulus.”¹⁹⁰

¹⁸³ Ibid.

¹⁸⁴ Boyd, *Origins of Stories*, 175.

¹⁸⁵ Ibid., 170.

¹⁸⁶ Ibid., 176.

¹⁸⁷ Gottschall, Jonathan. *The Storytelling Animal*, 67.

¹⁸⁸ Boyd, *Origins of Stories*, 190.

¹⁸⁹ Ibid., 193, 197.

¹⁹⁰ Ibid., 193

Literature is an abstraction, simplification, and compression of the lives we live in reality.¹⁹¹ The effects of this multifaceted experience is, as you might recall, everything from theory of mind, understanding of intentions, nature of empathy, social skills, and reduction of prejudice. Yes, according to Mar and Oatley, “engaging in the simulative experiences of fiction literature can facilitate the understanding of others who are different from ourselves and can augment our capacity for empathy and social inference.”¹⁹² The human condition is largely based on acknowledging and understanding the experiences and perspectives of others. Because we can never truly know the emotions and the exact thoughts of those with whom we interact, as we understand even with twins, fiction is a crucial medium for practicing and developing cognitive and, here, social ability through empathy. And if we need practice enhancing our skills with humans, what better alternative than our literary counterparts?

Narrative fiction models life, offers a commentary on it, and ultimately helps us understand how human intentions bear upon life.¹⁹³ Our most accessible avenue through which we acquire social information is through a story’s characters with whom we get to know in our imaginary, literary spaces.¹⁹⁴ The process mimics the way humans interact with humans in reality, but with added factors that make learning positive social techniques through empathy in fiction, for example, very accessible and effective:

- A. Reader likes the protagonist and characters
- B. Reader may experience a “pleasing surprise of recognition”
- C. Reader may become satisfied for “being able to understand visible behavior in terms of deeper principles” embodied in literary themes

¹⁹¹ Mar and Keith Oatley, *The Function of Fiction*, 173.

¹⁹² Ibid.

¹⁹³ Ibid.

¹⁹⁴ Ibid., 182.

D. Reader may experience “insight of seeing both others and ourselves in terms of human attributes that are both valuable and also problematic.” The complexity of the human condition is recognized and realized

E. Reader may then experience the “possibility of movement in [his/her/ner] mental makeup.”¹⁹⁵

Ultimately, experiencing any number of the above processes involves practicing empathy and establishing an understanding for the characters through which we can come to better understand the nature of selfhood, as well as the mindset of others.¹⁹⁶

Literature has an educating advantage in terms of affecting readers via characters because, as we have discussed, we have the opportunity to get know characters better than others in reality: their emotions and actions must be defined and put into words via language which may be more definition than we have known of our own emotions. Additionally, “the insight afforded by having the ability to experience a character’s ‘inwardness’ provides readers with “an evocative framework from which inferences beyond the text may be developed.”¹⁹⁷ This exercise differs from benefiting from narrative orally, for example, as the text and insight provided concerning the characters translate into a more descriptive and challenging activity of empathizing, imagining, and responding to the simulated social situations conveyed in the text. In other words, the medium of written narrative offers significant advantages to benefiting from social simulations:

Because this experience of being within another mind is also accompanied by other perspectives, such as impressions of the protagonist formed by other characters in the novel, it offers the reader not just the possibility of clarifying his or her mental models of

¹⁹⁵ Ibid., 183.

¹⁹⁶ Ibid., 182.

¹⁹⁷ Ibid., 183.

self, but also a sense of polysemy and self-transformation; such a potential is unique to fictional narratives.¹⁹⁸

No matter the specific subject matter of the narrative text, the author always challenges readers to empathize with individuals who differ from themselves.”¹⁹⁹ Yet when applied specifically to human social issues, this powerful effect can have hugely beneficial short-term outcomes for readers.

When a reader feels connected to the text, when he/she/ner is able to acknowledge the common humanity present between ourselves and dissimilar others, the reader is described as having been “transported.”²⁰⁰ This phenomenon helps us to know how to empathize with types of individuals with whom we have no personal experience and, for this reason, may be helpful in reducing bias against outgroup members.”²⁰¹ For example, in a study by Litcher and Johnson, white second graders were asked of their opinion regarding African Americans. They found that those children who read stories with multiethnic characters, showed significant improvement in their attitude towards African Americans.”²⁰² This study may also have been supported by the medium of written narrative as the structure and expectations of literature encourages empathy and comprehension, yet also allows readers the chance to “pull back cognitively and emotionally” when desired so as to individually modify the intensity and conditions of how they approach understanding between groups.”²⁰³ In the end, Mar claims that individuals who have been exposed to more fictional literature tend to exhibit better empathetic abilities.²⁰⁴ Story, therefore, benefits not simply the cognitive potential for readers to achieve empathy, but offers

¹⁹⁸ Ibid., 182.

¹⁹⁹ Ibid., 181.

²⁰⁰ Ibid.

²⁰¹ Ibid.

²⁰² Ibid.

²⁰³ Ibid., 181-82.

²⁰⁴ Ibid., 182.

readers the platform for which they may apply their empathic abilities to foster heightened social ability too.

VI. Resolution: ~~The End.~~

She is the compilation of the plethora of characters that came before her.

Having learned to write only too recently, she worked with another to define and identify the correct combination of letters that would, what could only be described as magically convey the pain, helplessness, and eventual realization of her servitude.

“Freedom . . . slavery . . . liberation . . . abolition.” Yes, that was the reality she had felt.

And then it changed.

Having discovered her father’s death was actually a murder, she brought into question her sanity and everything that she thought was true. Yes, she remembered that. And then she moved on.

Having explored the psychology of her own experiences with text, she decided to place it in her own words, though the words have stayed relatively the same.

She walked from a hospital bed to her home with the small steps dictated by the pace she did not choose. Her speed was influenced by the luggage she brought home, the rhythmic beeps still in her head, hopelessly trying to define even the speed at which she breathed.

As she opened the door to her home, she knew she could not stay. They said to forget, to leave the untyped words to the thoughts and conversations of future coffee shops, but she decided to go.

From her hospital bed, to her home, to the walls redefined by the knowledge of years and years of others who felt and thought before her, she instead left the beeps, the hesitation, and the fear

of recovery for the endeavor she had embarked on 8 months earlier. They were her characters too.

To her, she was the compilation of the words she read, the organization she constructed, and the hope she had back in that hospital bed to finish what she started, and demonstrate the phenomenon that allows us our humanity. She decided to do it despite the days that forced her back to bed and the nights she choose away from it.

She is the compilation of the plethora of characters that came before her.

And, therefore, her very own.

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