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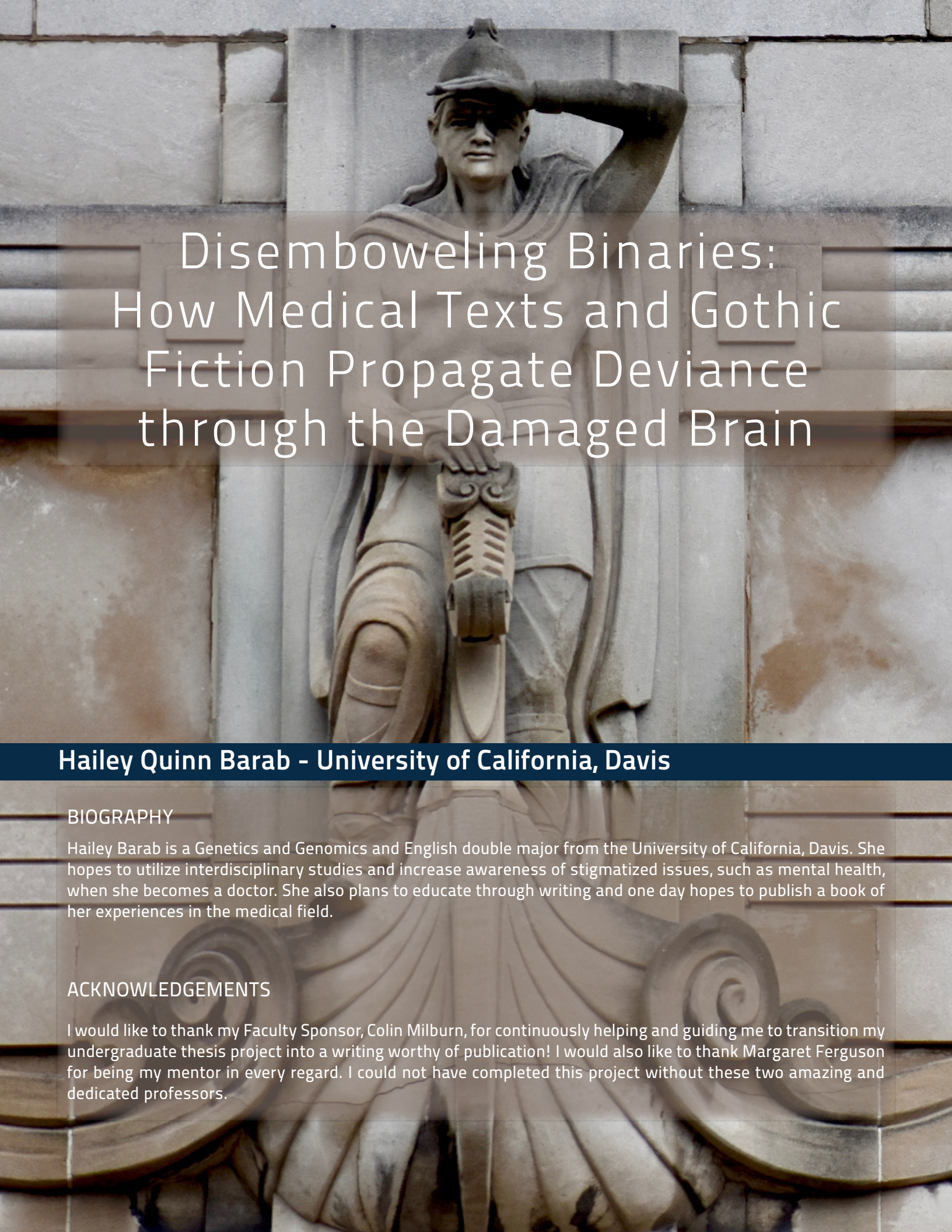

# Disemboweling Binaries: How Medical Texts and Gothic Fiction Propagate Deviance through the Damaged Brain

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## BIOGRAPHY

Hailey Barab is a Genetics and Genomics and English double major from the University of California, Davis. She hopes to utilize interdisciplinary studies and increase awareness of stigmatized issues, such as mental health, when she becomes a doctor. She also plans to educate through writing and one day hopes to publish a book of her experiences in the medical field.

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Good and evil, insiders and outsiders, healthy and pathological, sane and insane: binary oppositions sit at the forefront of societal discourse, both characterizing the epistemic structure of Western culture and shaping the production of knowledge in very subtle ways. With the knowledge of well-established binaries, it is apparent that dialogue regarding the binaries has caused disciplines to converge and subvert their boundaries as well. This essay explores the violations in boundaries of health/pathology through the image of the damaged brain in texts surrounding both cerebral localization and Gothic horror fiction. While neuroscience writings and case studies establish binaries and use Gothic qualities to police and discipline the pathological to maintain societal categories, Gothic horror fiction builds upon the long established themes of the healthy versus the pathological in neurological discourse and attempts to disembowel them. A defining feature of the Gothic horror is its supernatural elements; although the plot cannot directly reflect everyday life, a significant cultural norm hides within this medium: the othering of deviance. Typically, the text identifies a monster, which can come in many shapes and forms, that must be vanquished by the text's conclusion. These monstrous deviants are considered a threat to humanity's natural order and therefore must be defeated or eradicated. As evinced through Stoker's *Dracula* and Oates' *Zombie*, the hybrid monster dislodges binaries through the manifestation of both an insider and outsider space.

Behind closed doors and confined walls of boxed categories, normality is seemingly stable and established. It is only when stepping into hallways and corridors between categories that show how messy and complex its definition truly is; how limiting and confining the walls are;that is, when normality falters. Binaries are the categorization between two distinct forms that are often opposite in nature, such as the distinction between good and bad. This paper examines the binary between the healthy and the pathological by exploring the difference between the healthy brain and the damaged brain, and by analyzing how that difference operates within the context of Gothic horror literature and discourses surrounding cerebral localization. I have chosen to analyze and compare medical case studies of individuals with mental deficits and injured prefrontal cortexes with Gothic horror texts that have explicit references to traumatic brain injuries (TBIs) and prefrontal lobotomy, namely Bram Stoker's *Dracula* and Joyce Carol Oates' *Zombie*. By examining texts of the late nineteenth and twentieth century, I aim to explore how Gothic fiction texts and neurological texts interact through their shared patterns and logic. Cerebral localization texts, such as TBI and psychosurgery case studies, propagate binary thinking via the chasm between the atypical and the typical brain and, as a consequence, create a negative association with the aberrant mind. Cerebral localization case studies inflate the image of the damaged brain as abnormal and different to medicalize and police that difference. This, in essence, is the Gothic narrative. The medical texts, I argue, are using the Gothic narrative in an uncritical way; Gothic horror texts, however, disembowel the binary through hybrid monsters and elicit fear by questioning binary logic and exploiting its limitations.

Binary logic is a deeply ingrained system of organizing boundaries through which micro-categories arise. It is a subliminal process that affects how thoughts are structured, a metanarrative that underrides rational processes. Binaries are a dominant guide to how the world is viewed and categorized. What is "normal" by society's standards is categorizing and separating the expected from the atypical. As evinced through Foucault's work, such separation and categorization has been a common practice to facilitate human understanding of the world (Derrida & Spivak, 1997). This helps to explain why the Gothic horror's mixing of the binaries and hybridity is so unfamiliar and terrifying to society as it highlights a failure in binary categorization. Further, as a culturally perceived, binary logic can be detrimental to the individual, as is evident when examining societal reactions to wavering binaries of health. Binaries are a social construct which means that society has made cultural decisions regarding deviation according to statistical regularities (Canguilhem,

Fawceett, Cohen, & Foucault, 2007). There is a particular kind of difference that is irreconcilable and deemed outsider and that difference is amplified. This binary logic emerges quite frequently in medical texts regarding the pathological, "abnormal" brain. The image of the damaged brain as deviant recurs throughout cerebral localization studies and the Gothic horror genre of fiction. I am using the term "Gothic horror" to signify an overarching genre that includes fictional texts from the late nineteenth century and modern horror fiction novels. I am using the term cerebral localization, also termed functional localization, as a contemporary finding of how certain areas of the brain function independently and for a specific purpose. This paper focuses specifically on the localization of function of the prefrontal cortex's connection with the individual's personality.

## Cerebral Localization

Scientists have reinforced the notion of cerebral localization after significant experimental findings from TBI and psychosurgeries over the past century. Cerebral localization maintains that the brain is composed of multiple cerebral centers, each having specialized functions that can act either independently or conjunctively (Carnochan, 1884). After extensive experimental research and analysis, the notion of specialization of function was generally accepted by the end of the nineteenth century. It was not until 1799 that scientists argued the brain to be the central organ of the mind and since then, the study of the brain through neuroscience and psychology has been growing at an incredibly fast pace (Young, 1970, p. 11). One of the main scientific leaders for this movement was Franz Joseph Gall. According to Young, "no one before Gall argued for the dependence of the mind on the brain in such detail, specifically disproving the role of other organs" (Young, 1970, p. 20). Gall was also the first to argue for the brain's multifaceted structure, able to correlate emotions, facilities, and behaviors with various regions of the brain and skull. He called this idea phrenology, which remained popular in England and America until the middle of the century, but was eventually rejected because it was derived purely from assumptions (Young, 1970, p. 55).

In contrast to Gall, who lacked direct observation, Paul Broca had more substantial evidence to defend the pluralistic function of the brain. In 1861, Broca linked the third convolution of the left-brain hemisphere (now known as Broca's area) to speech and linguistic capability. While Broca had predominantly relied on clinical case studies and autopsies for his work, scientists in the 1870s performed experimental surgeries on live animals to observe more precise brain functions. In the 1870s and 1880s, one of the major findings by Fritszch and Hitzig was that the brain could be electrically stimulated. David Ferrier then used this finding to excite and locate various regions of animal brains, using his results to make detailed cortical maps that helped visualize various functions (Stiles, 2012, p. 2). All of these findings, and many others not mentioned here, supported the fact that discrete sections of the brain regulate specific mental and physical functions.

With the phenomenon of cerebral localization firmly established, late nineteenth- and early twentieth-century scientists formulated experiments and case studies that further supported these findings. TBIcases and psychosurgeries, which gained greater popularity in the 1930s, highly progressed the understanding of cerebral localization and the function of personality in particular. Both the dorsolateral prefrontal cortex and the orbitofrontal cortex regions of the brain affect an individual's personality; injuries to the former "produce apathetic, poorly motivated behavior" while lesions to the latter are "characterized by unstable emotions, disinhibited expression and blunted affect, and lack of concern for other people" (Dimitrov, Phipps, Zahn, & Grafman, 1999, p. 345).

One of the most famous cases of TBIs in which a prefrontal lobe lesion caused changes in social behavior is called "The American Crowbar Case." In 1848, a 25-year-old man named Phineas Gage worked as a railroad foreman. He was described as "energetic, and modest in demeanor despite

being very handsome" (Guidotti, 2012, p. 249). While working the construction of a rail bed, a 3-foot-long 13-pound iron-tamping bar (called a crowbar at the time) penetrated his head and removed his left frontal lobe. His physician, Dr. John Martyn Harlow, attended to the injury and, with the exception of partial face paralysis and the loss of his left eye, Gage survived and maintained full neurological function. However, after further analysis and follow-up appointments, Harlow and others close to Gage noticed dramatic changes in his behavior. Preceding the accident, Gage "was described as reliable, systematic, and hardworking;" after, he "became impulsive, disorganized, and stubborn" (Guidotti, 2012, p. 249). He began to use profanity, disregarded social conventions, and friends and family remarked, "he was no longer Gage" (Harlow, 1869).

Since Gage, other patients with similar injuries have had the same result, which led researchers to believe that "emotion and social conduct regulation" depended on the brain's prefrontal cortex (Dimitrov et al., 1999, p. 345). For instance, in 1968, a patient named MGS (also called the Modern Gage) suffered from the same injury during combat in the army, but instead to his right frontal lobe. His skull was fractured and bone fragments entered his right frontal lobe; yet, his neurological exam showed completely normal results and MGS returned to active duty. However, after his return, there were notable changes in his behavior. Prior to his injury, MGS received over 10 medals and the Purple Heart, but after his injury, he was demoted in ranking due to ineptitude. Post-evaluation results still showed "normal general intelligence, memory and perceptual-motor functioning" (Dimitrov et al., 1999, p. 346). However, according to MGS' family, 'he was not like he used to be;' he was remote, lacked tactfulness, was socially withdrawn, temperamental, and sarcastic. He had "no ability to make or keep friends" and his mother said he met with "the lowest of the low" (Dimitrov et al., 1999, p. 346). Further evaluations in 1998 noted deficits in the area of emotions and social behavior and "he appeared unable to have normal relationships or to follow social norms,both ethical and legal," yet he lacked awareness of his deficits (Dimitrov et al., 1999, p. 350).

Both patients remained isolated from friends, family, and society. They were considered atypical, others, outsiders, monstrous. For instance, after his recovery, Gage was able to go back to work but first made "a living for himself, as a circus act, where he appeared holding the iron tamping rod" (Guidotti, 2012, p. 250). Gage utilized his new identity as other, his tamping rod a symbol of his outsider status. Surviving such an intense injury made him very well known, but what made him notorious was his hostile behavior, upon which society focalized throughout his descent into otherness. The image of Gage as a "disheveled" misfit persists today and has turned his medical case into a type of folklore. Likewise, MGS was marked deviant due to gross lewdness and was "put on four years probation" from military service (Dimitrov et al., 1999, p. 346). His abnormal behavior warranted societal observation and inspection, further categorizing him as deviant. Gage and MGS further propagated categories, boundaries, and their deviant statuses through their transgressions. Deviance, or straying from the norm, is common for many patients and they eventually seek treatment to alleviate their abnormalities. However, for Gage and MGS, treatment was not an option due to the lack of knowledge surrounding their condition. The societal response to their medical cases transformed these patients into outsiders; the narrative framework displays different perspectives from family, friends, and coworkers, which reinforces the patients' shift into deviancy. These medical 'monsters,' much like Gothic horror monsters, are the manifestation of the psychological and cultural qualities that society finds unwanted or difficult to accept. Gothic horror pulls on this human tendency to rid the other as the basis for its narrative framework.

*"The societal response to their medical cases transformed these patients into outsiders."*

Society's response to rid itself of deviants enables manipulation to police these differences. As doctors and scientists take measurements and use empirical data to evaluate, categorize and standardize what is healthy (normal) and unhealthy (abnormal), the binary chasm between the atypical and typical brain is socially constructed and continues to manifest and grow larger, as does the negative stigma with the aberrant. Yet "social construct" implies that there exists an alternative way to think of the distinction between these categories. In *Madness and Civilization*, Foucault states that the concept and treatment of madness has been tumultuous throughout history as its definition has evolved with society's changing perception of it. As a social construct, madness has shifted and transformed because the normal individuals, the economic, cultural, and intellectual individuals, who operate society, create its definition. Therefore, the definition of madness is not secure or fixed but rather depends on the society in which the definition functions. The social construct of the binary between the pathological and the healthy first has to be justified, which is why the abnormal brain serves as a salient outlier when compared to other common differences that exist between average brain. It is important for writers to emphasize this distinction and to reinforce an otherwise tenuous and microscopic difference to justify social action. The identity of madness is insecure and the key is to classify madness and separate it into its own category separate from other deviants, such as criminals. Cerebral localization texts established the definition of an atypical brain, and its associated behaviors, as abnormal and texts later evolved to justify the actions of eradicating these differences.

Madness and deviance were initially managed with confinement, which was a way of dealing with the societal fear of the atypical. Asylums replaced confinement and madmen became moral outcasts and degenerates. Asylums, however, helped to facilitate the patient-doctor interaction and madness grew to become classified as a medical disease in which the insane sought cures and treatments. Figurative confinement still exists today via categorization. Disorders are treated as stigmatized illnesses when they are actually behaviors that diverge from the cultural norm. Society and medicine labels patients as mentally atypical or insane to simultaneously create obedience of societal standards and ignore the potential societal causes of their problems.

Psychosurgery was one of the most aggressive medical forms of forcing obedience. Gage and MGS' ability to maintain a high level of brain function suggested that living without pieces of the brain was feasible, which "indirectly led to psychosurgery, and the abuse of frontal lobotomy that came a century later" (Guidotti, 2012, p. 250). The founder of psychosurgery was Gottlieb Burckhart, who operated on the brains of patients to treat their various emotional and mental disorders, removing pieces of the cerebral cortex. In 1935, Egas Moniz established the term "psychosurgery," also called prefrontal leucotomy, which divided the afferent and efferent signals of the frontal lobe by excising "a core 1 cm in diameter... Four to six such cores in each frontal region were isolated at various depths and in chosen directions" to reduce symptoms of mental deficits (Smith & Gordon, 1974, p. 19). Moniz propagated the success of the surgeries; however, his records were scarce and reportedly, "several patients were returned to asylums and never seen again" (Stanford, p. 411). In 1942, Freeman and Watts modified Moniz's procedure and published the extensively referenced Psychosurgery, which was rendered a great neurological achievement (Smith & Gordon, 1974, p. 19). However, there continued to be adverse effects, including epileptic seizures and death. Freeman separated from Watts to create the transorbital frontal lobotomy in an effort to control violent behavior. Also referred to as leucotomy, this operation reduced cells and circuits to the frontal lobes, causing the patient to lose drive, force, and energy (Greenblatt & Solomon, 1953, p. 412). The procedure used "an instrument resembling an ice pick [that] was inserted into the orbital roof and swept across the prefrontal cortex," resulting in unresponsive and inert patients. Oftentimes, however, physicians who performed this procedure had no prior surgical training. It is also important to note the poor conditions of asy-

lums during this time period. Psychosurgery was posed as a potential solution to the overcrowded and undermanaged mental hospitals to alleviate the burdens of mental illness (Smith & Gordon, 1974, p. 19).

With direct references to Freeman and Watts's procedure, Joyce Carol Oates's *Zombie* reveals the mind of a serial killer, Q__P__, or Quentin P, while simultaneously criticizing surgeons' unethical procedures of psychosurgery:

> Desired results: "flattening of affect to reduce emotion, agitation, compulsive mental cognition and physical behavior in schizophrenics and other mental patients...This page, I razored out of the textbook. Back behind the psych library stacks where nobody could see. I COULD ALMOST SEE MY ZOMBIE MATERIALIZING BEFORE MY EYES....Another book even better, Psychosurgersy (1942) by Dr. Walter Freeman and Dr. James W. Watts of George Washington University–I knew this was a TURNING POINT in my life. How many thousands of transorbital lobotomies these guys performed in the 1940s & 1950s & how easy to perform, the author of Principles of Psychosurgery stated he did as many as thirty sometimes in a single day using only a "humble" ice pick as he called it. Dad & Mom had hoped for me to become a scientist like Dad, or a doctor. But things had not turned out that way. But I knew I could perform a transorbital lobotomy even if it was in secret. All I would need is an ice pick & a specimen. (Oates 40-42).

This passage foreshadows Quentin's future association with the damaged brain. There is a metaphoric relationship between the book and the human subject, as Quentin "razors" the page out of the textbook "back behind the psych library stacks where nobody could see." Quentin performs this mock surgery on the book in private, reiterating his secretive nature caused by his inability to connect with others or the real world. This privatization enforces his role as other and deviant. Quentin eventually performs these surgeries on his numerous victims in an effort to create his ZOMBIE. The ZOMBIE he envisions has "reduced emotion, agitation, compulsive mental cognition" as stated in the manual for mental patients; yet his ZOMBIE would be his companion and "would obey every command & whim. Saying "Yes, Master" and "No Master."

Ironically, Quentin wants to perform the surgery on victims that he himself would have received at the height of the procedures' popularity. Because Quentin has an abnormal, psychotic mental function, he seeks companionship and wants to transform the normal into the abnormal so that he will no longer be alone as an outsider. This message serves as a warning to the action of othering, which has caused Quentin to seek solace in placing others in his same position. The text further criticizes unethical medical practices by drawing an overt parallel between serial killers and unethical doctors of mental patients when Quentin states that when he picks a victim he "will observe him detached as a scientist calculating what kind of ZOMBIE he might make" (Oates, 1995, p. 77). Just as scientists view their patients in a calculated manner, as a subject rather than human, Quentin acknowledges that he does the same when choosing his victims. It is evident that the text is drawing on the longer history of policing deviancy in a medical setting, distinguishing normal and pathological to comment and critique this particular system of categorization.

The entire text is written in a very desensitized and transparent manner via simple syntax and lack of tropes. The concept of normalcy then is two-fold, calling into question the essence of normality and realism for the individual and for literature. Generally, there is a divide between the standards of scientific and literary writings: scientific writing is straightforward, factual, and concise while literary prose functions to enhance reality through metaphors and complex language. Yet, perhaps there is a change in the method of writing when it

focuses on madness, or when the author seeks to mimican atypical character's perspective. There are certain literary techniques used to transform delirious logic into coherent counter-rhetoric (Felman & Evans, 2003, p. 106). Moreover, this shift in literary technique cannot be analyzed without first calling into question how"normal" is defined in reference to language and style. "The speeches of the madman take on significance and meaning only by their immediate reference to discourse" (Felman & Evans, 2003, p. 104).

Do horror fiction texts create an experience of horror through "ornamental excess" and "rhetorical extravagance" that reflect monstrous mayhem, as Halberstam argues, or are they the opposite: a lack of description that leave a void and eerie tone (Halberstam, 1995, p. 2)? The same is mixed in the above scientific case studies, which form a narrative framework through textual characterization and varying shifts in view point, obviously straying from the standard scientific concision. Through knowledge of the well-established dichotomy between disciplinary studies, it is apparent that violations in boundaries of mental health have caused disciplines to converge and subvert their boundaries as well.

*"While both sides tell a story, the patient's response builds a stronger pathos"*

Using a tactic of combining both scientific logic and literary pathos, the Second Lobotomy Project of Boston Psychopathic Hospital's "Frontal Lobes and Schizophrenia" was a key medical text, published in 1953, that studied the effects of psychosurgery on patients with mental disorders and schizophrenia. Physicians detailed the case histories of patients treated with psychosurgery and tracked the developments, improvements, and/or fatalities that resulted. One extensively detailed case history studied a male schizophrenic patient by the name of Joseph G. (J.G.). The format of J.G.'s case history uses two chronological columns—the left column describing the "events in life situation," and the right column describing the corresponding "patient's response". This dual format displays the differing perspectives of the physician's evaluation of the patient and the patient's direct quotes and experiences. Displaying both third and first person point of view functions narratively. While both sides tell a story, the patient's response builds a stronger pathos because of the direct quotes and insights about his feelings of fear and paranoia. For instance, after his bilateral prefrontal lobotomy operation, the events column states his postoperative course as being "marked by moderately severe meningitis and bilateral drainage from the operative site, which was cleared with penicillin and sulfadiazine" (Greenblatt & Solomon, 1953, p. 333). On the other hand, the response column states that the patient "lacked spontaneity, but was neat, cooperative, polite. He remained passive, with no hostility evident, no fear. He still heard voices but less often and they bothered him less" (Greenblatt & Solomon, 1953, p. 333). The events/left side displays a more removed, medically logical understanding of the event while the right/response side reflects pathos and a more relatable standpoint. One side functions more factually and the other more emotionally; the binary mirrors the typical structure of either science or literature but, by unifying in the case history, the two sides function as a single textual hybrid.

The two sides together tell a unified story regarding J.G.'s mentally atypical state of mind, leading inevitably to the psychosurgical treatment detailed above. The case study chronologically describes his deterioration into insanity. First, prior to his diagnosis of schizophrenia, J.G. is described as being a relatable patient, "the favorite son" to his mother, artistic, and quiet (Greenblatt & Solomon, 1953, p. 327). The onset of his psychosis occurred after his first marriage at age 32. He became angered with his wife and criticized her in public, stating that every time he was near her, "he felt like vomiting" (Greenblatt & Solomon, 1953, p. 329). Researchers detail events in which the patient recalled his bosses threatening him and "he said he was going to buy a knife and kill somebody. He heard voices which kept him from sleeping, thought the neighbors were talking about him"

(Greenblatt & Solomon, 1953, p. 330). By creating a foundation of a good person, a favorite among his parents, the text draws the reader to J.G, making his transformation and future change in behavior even more significant and shocking. The text's description of his altered personality, his violence and deviance from social norms, alters the reader's perception of him from the once relatable character into a deviant. The narrative anecdotal format pulls the reader to not only see the story from the physicians' perspective but also agree with and support the physician's course of action.

> *"His deviance and inevitable alienation from the reader not only seeks to justify medical treatment but also to render its approval to restore normality."*

Additionally, although the text does alternate between first and third person, many of J.G.'s quotations are paraphrased in the researchers' own words and altered to fit a medical analysis. His chronological descent into "otherness" justifies the prefrontal lobotomy and the causation of further damage to his brain. His deviance and inevitable alienation from the reader not only seeks to justify medical treatment but also to render its approval to restore normality.

Researchers questioned the reliability of psychosurgery and its capacity to restore normative brain function as well as to prevent the patient from further deviance. The "breakdown of the patient's control" is what needs to be fixed; it is normal, by society's standards, to maintain control in given situations, and not abiding by such standards gives cause for medicalization. J.G. is described as having "outstanding" adjustments when compared to other patients, although they later negate this statement by associating the surgery with slim improvements (Greenblatt & Solomon, 1953, p. 326). Therefore, the case stands as a justification for displaying that the medicalization of insanity and atypical brain function can be solved and display results, regardless of how slight they may be. Problems can be fixed by medicine to help individuals squeeze into their proper category: in this case, societal relations and personality are the defects and physicians are given the authority to prescribe normality.

Social ability, however, is a construct that confines the individual to their category. Realistically, the outcome scientists and physicians are trying to obtain might never be attainable for this patient or for the public as it is nearly impossible to define normality. By stepping outside of the physician's persuasive perspective and observing the case from the non-normative stance, the reader should question the concept of what it means to be "normal" in the first place. Additionally, it is important to take note of the ethics behind psychosurgery and the difficulty of obtaining consent from a patient who is neither fully understanding of the severity of their illness nor is cognizant of its medical implications. For this reason, physicians seek to justify their actions. In fact, in the late 1950s, psychosurgery was deemed unethical and operations ceased. Physicians did not justify their actions by explaining how beneficial the particular treatment or surgery would be for the patient. Rather, physicians argued the patient was confounding the normal order, monstrous and deviant, and therefore in need of correction and restoration. This is the basic plot of the Gothic: the recognition of deviance and restoration of order by putting the monster back into a state of normality or to vanquish the monster at the narrative's conclusion. These medical texts, in effect, discover and classify abnormality and deviance, then seek to eradicate it. Thus, these medical texts produce the same cultural narrative as the Gothic horror by policing against deviance.

## Gothic Fiction

*Dracula* does just that, if read from the perspective of the insider, Dr. Seward. However, perspective is a key element in analyzing the normative and non-normative; what registers as sane from an insane perspective registers as a different logic entirely from a sane perspective. *Dracula* is written in a journal-entry format, which switches be-

tween various characters. Dr. Seward is a surgeon, psychiatrist, and administrator of an insane asylum that is central to the plot. His journal entries capture his careful observations of the madman inmate, R.M. Renfield. What fascinates the doctor is Renfield's desire "to absorb as many lives as he can" by feeding flies to spiders, spiders to birds, and hopes to feed the birds to cats, all the while eating the insects and animals in a cumulative process. Seward terms him a "zoöphagous [life-eating] maniac" and tracks his mania in journals (Stoker, 1999, p. 103). Our introduction to Renfield is a depiction of his animality. Historically, this type of imagery was often associated with madness; according to Foucault, madmen were animalistic and lacked humanity. They were unbound by human and societal laws and thus "threatened order." The way to correct this deviance was through discipline and control—this categorization justified confinement (Foucault & Howard, 2006, p. 77). Although society moved away from treating the insane with force and moved towards medicinal treatment, Seward viewing Renfield as animalistic justifies categorizing him as subhuman and the efforts to control him.

Renfield is depicted throughout the novel as an antagonistic, monstrous lunatic who later is revealed as a signal for the coming of Dracula, the main antagonist. Renfield serves as a unique monster because of his ambiguity throughout the novel, as represented through Dr. Seward's perspective and analysis of the psychosis. Seward's portrayal and analysis of Renfield reveals the dialogue between neuroscience and the Gothic genre of the late nineteenth century. There are two explicit scenes that reference and detail vivisection in its relation to mania and TBIs. First, after Seward comes to understand Renfield's apparent lunacy in pursuit of absorbing life for immortality's sake, he reflects upon his scientific understanding of neurology:

> Men sneered at vivisection, and yet look at its results to-day! Why not advance science in its most difficult and vital aspect—the knowledge of the brain? Had I even the secret of one such mind—did I hold the key to the fancy of even one lunatic—I might advance my own branch of science to a pitch compared with which Burdon-Sanderson's physiology or Ferrier's brain-knowledge would be as nothing. If only there were a sufficient cause! I must not think too much of this, or I may be tempted... (Stoker, 1999, p.103-104)

It is apparent that Seward is in support of vivisection, using Renfield as an experimental means to further scientific knowledge. Seward, however, realizes that "men sneered at vivisection," generally disapproving of the procedure. The use of the word "sneer" connotes judgment; vivisection was viewed as cruel, unethical, and oftentimes frightening as it was an autopsy-like procedure performed on a living being. For this reason, Seward avoids considering it as a mechanism to deter himself from carrying out the procedure, which brings up the question of whether the end justifies the means. Is performing an unnecessary and rather understudied surgery on "one such mind" justifiable in order to advance an entire "branch of science"? Seward reflects an uncaring view of people with abnormal minds; he feels justified because Renfield is a lunatic, simply one mind less worthy of ethical consideration than an individual with a "normal" brain. His sacrifice is justified because it would further the understanding of a typical brain. By observing Renfield in a detached, objective case-study-like manner, Seward brings a sense of realism to the text. He brings credibility and authenticity to the text by referencing real physiologists of the time. Seward is presented as a narrator who presents his patient's thoughts as facts, despite his biased perspective. Renfield is presented more as a medical specimen than a human being.

Renfield is the focus of many brain topics and interestingly meets his demise through a TBI, which is described in a medically realistic manner:

> The real injury was a depressed fracture of the skull, extending right up through the motor area. The Profes-

> sor thought a moment and said:– 'We must reduce the pressure and get back to normal conditions, as far as can be; the rapidity of the suffusion shows the terrible nature of his injury. The whole motor area seems affected. The suffusion of the brain will increase quickly, so we must trephine at once or it may be too late... We shall operate just above the ear. (316-317)

It is important that Renfield meets his death through a further damaged brain, as he is constantly associated with the atypical brain and its studies. As a monster, Renfield contributes to the tone of horror associated with studying the damaged brain. In turn, his damaged brain also characterizes him as an even more horrifying character. Therefore, it is only fitting for him to die in such a brutal manner. Furthermore, the events surrounding his death signify the practitioners' lack of empathy for insane individuals. The doctors want to save Renfield to extort information regarding how he received his injuries from him in order to protect themselves from Dracula. For all the attention Seward gave Renfield, he does not regret the loss of his patient even after discovering his associations with Dracula. Renfield's death is presented simply as a means to further the plot; he is not mentioned again.

The ambiguity surrounding Renfield as a monster is evident throughout the novel, as it remains unclear to Seward whether Renfield is either sane or insane. Further, the reader is only made aware of Renfield's mind through Seward's perspective even while Seward constantly negatesg himself. For instance, after constantly observing Renfield, the doctor notes "there is a method in his madness" (Stoker, 1999, p. 102). This is an allusion to Shakespeare's Hamlet as Hamlet is in a similar situation to Renfield. If Hamlet is mad, he also represents a different logic from the supposed normality around him. This reference emphasizes the fact that the question of sanity and normalcy has been prevalent throughout history.

Seward categorizes and alternates between describing Renfield as sane and insane countless times in the novel through stream of consciousness writing. Seward goes back and forth in his diagnosis for Renfield, exemplifying his confusion and struggle to categorize his patient. In the scene where Renfield meets Mina Harker, Seward admits to being astonished by his "own pet lunatic—the most pronounced of his type that [he] had ever met with—talking elemental philosophy, and with the manner of a polished gentleman...for he addressed himself to the question with the impartiality of the completest sanity" (Stoker, 1999, p. 273). First, he calls Renfield his "pet lunatic," demeaning the insane. He also is "astonished" by the manner in which Renfield is able to act in both complete sanity and complete lunacy. In the next scene, Seward refers to Renfield as his "patient" in quotations, signifying the irony of his own uncertainty as to whether or not he is a patient that requires a psychiatrist (Stoker, 1999, p. 282). It is apparent that Seward is limited in his full understanding of Renfield's mental status, yet his need to categorize degrades Renfield to a less worthy individual. Renfield is in an asylum because he is not sane by societal standards, but for Seward, what "not sane" means is unclear once medical rationality proves insufficient to account for the alternative sanity of the insane. Renfield is monstrous because his intermediate health threatens the community and its relation to normal identity. Seward's attitude toward mental illness is demeaning; it is something that he seeks to understand, categorize, and control. However, his attempted categorization results in a back-and-forth determination; measurements of Renfield's sanity create a character that is hybrid in nature, a mixture of sane and insane.

Likewise in *Zombie*, Quentin's performances with his clinicians is calculated as he mimics sanity to appease and deceive those who pass judgment on him. He knows how he is supposed to act as a sane individual and often lies to disguise himself as normal. For instance, when Dr. E__ is assessing him and asks if he has been dreaming, Quentin lies and says what the doctor wants to hear, to which the doctor prognosticates, "there

is definitely an improvement" (Oates, 1995, p. 167). Quentin knows how to manipulate those around him by presenting as sane and knowing how the normal behave. However, it is a performance so he may continue living as a mad scientist creating a ZOMBIE. During the visit, he points out that he is wearing trinkets from the victims he has killed, yet he states this fact in a very nonchalant manner. The irony that Quentin is able to carry out his insanity unnoticed, even while under the scrutiny of physicians and police, highlights his heightened awareness regarding normative behavior and his highly manipulative actions of mimicry. Although those he interacts with consider him normal, the reader knows his truly pathological intentions and his performance emphasizes his hybridity throughout his social exchanges and in the privacy of his own thoughts. Quentin is considered atypical/outsider/insane yet he is able to claim power and mastery of the insider role. Renfield and Quentin do not adhere to their labels or to the condemnation associated with them. Both monsters disembowel the binary system by creating a sense of normalcy and logic despite society's perception of their inability to be rational or "normal." Their madness becomes a "social mask, a role to be played". "The accused becomes the accuser, pointing his finger at the exposed faces" so that the opposite of madness is not sanity but rather the faces of those who do not recognize it (Felman & Evans, 2003, p. 82).

With the inability to categorize Renfield as either sane or insane, we may find that it is difficult to decipher Renfield's motives when viewing them primarily from Seward's point of view. A common way to interpret his character is through a reawakening of his consciousness after meeting Mina Harker. He receives a TBI and dies in a valiant effort to save Mina from Dracula. However, there is an alternative way to read Renfield's motives. Rather than gaining a conscience and trying to save Mina, his motives can be read as an irrational jealousy over Dracula's infatuation with and favoritism for Mina over him. This can be seen through both Seward's claims of his calculating behavior and Renfield's own diction. First, Seward often describes Renfield as "cunning" with "selfishness, secrecy, and purpose" (Stoker, 1999, p. 101). Seward observes Renfield's expression during a philosophical debate "'. . . as to life, what is it after all? When you've got all you require, and you know that you will never want, that is all. I have friends—good friends—like Dr. Seward'; this was said with a leer of inexpressible cunning" (Stoker, 1999, p. 256). With this cunning and calculation, Renfield is cognizant of society's perception of sanity; he says what he thinks Seward wants to hear as a form of manipulation. Furthermore, when Renfield first meets Mina, he eats all of the flies before she comes into his room and Seward notes that his reason was due to worry "of some interference" (Stoker, 1999, p. 231); that is, interference with his worship of Dracula and his plans for immortality. He sees Mina as a threat to his plan and his master's attention.

Renfield's jealousy is apparent when he describes his struggle before confronting Dracula, and he admits to waiting for him all day:

> But [Dracula] did not send me anything, not even a blow-fly, and when the moon got up I was pretty angry with him. When he slid in through the window, though it was shut, and did not even knock, I got mad with him . . . [Dracula] went on as though he owned the whole place, and I was no one. He didn't even smell the same as he went by me. I couldn't hold [Dracula]. I thought that, somehow, Mrs. Harker had come into the room. (Stoker, 1999, p. 320)

*"Madness from the perspective of the mad can display an entirely different story"*

When reading this frame out of context, it sounds much like two partners quarreling and one feeling invalidated by the other, jealous of another woman's interference. Renfield has an intense attachment to Dracula, and for this reason, decides

to attack him after he finds out that Dracula has been draining Mina's blood. In his account of the arrest, Renfield claims, "I was ready for Him [Dracula]. I grabbed [the mist] tight. I had heard that madmen have unnatural strength; and as I knew I was a madman—at times anyhow—I resolved to use my power" (Stoker, 1999, p. 321). Here, Renfield acknowledges his own ambiguous sanity and resolve to kill Dracula out of jealousy. Madness from the perspective of the mad can display an entirely different story. By primarily analyzing Renfield's diction, the reader is able to decipher a perspective other than Seward's. Reading the text through Renfield's perspective gives Renfield a greater sense of agency regarding his own sanity and a greater deal of authority in his actions.

Renfield is seen as a monster because of his association with the brain, but what makes his character even more terrifying is Seward's inability to categorize him. Seward's perspective is not only unclear but it also reflects the common sentiment regarding lunacy. Van Helsing's description of Seward can be extended to claims regarding binaries as well:

> You are a clever man, friend John; you reason well, and your wit is bold; but you are too prejudiced. You do not let your eyes see nor your ears hear, and that which is outside your daily life is not of account to you. Do you not think that there are things which you cannot understand, and yet which are… Ah, it is the fault of our science that it wants to explain all; and if it explain not, then it says there is nothing to explain (Stoker, 1999, p. 302).

Although this quotation is referring to vampirism, it can be extended to Seward's and science's general need for classification. This quote highlights the limits of binaries and the scientific field to expressing them. As readers analyze Renfield's character through Seward's perspective (an insider's perspective), they, too, are limited by a need for categorization and an inability to comprehend hybridity. Analyzing Renfield's diction instead gives more agency to the monster that disrupts the binary of mental health. Renfield disembowels the binary system by acknowledging his own scale of sanity. It is only when dealing with Renfield's own diction and reading the text from his perspective that the reader is offered an alternative view. Madness is not an illusion but its relation to normality shifts when one approaches insanity as an alternative of what constitutes the normal and sane in the first place. Monsters represent a different logic named "insane" from the perspective of those who are supposedly sane, in effect, disemboweling the binary system.

*"Monsters represent a different logic named "insane"…in effect, disemboweling the binary system."*

Gothic horror, therefore, is critiquing binaries by making them indistinguishable, creating monsters that occupy both insider and outsider roles. While initially distinguishing between typical and atypical, the texts constantly intermix them and make distinctness impossible. *Dracula* and *Zombie* adopt the same authoritative discourse by referencing other medical texts to highlight how the binary does not hold. Disemboweling binaries via the hybrid monster, as in Gothic horror, serves to critique the ease of the medical texts in labeling patients as either healthy or pathological. In *Skin Shows*, Halberstam, too, argues that monsters of the nineteenth century "metaphorized modern subjectivity as a balancing act between inside/outside." In Gothic horror, the deviant monster "announces itself (de-monstrates) as the place of corruption" as a figure that infiltrates boundaries, such as "health and perversity, inside and outside." When these boundaries dissolve, they "threaten the integrity of the narrative itself" (Halberstam, 1995, p. 1). Rather than being a comprehensive psychological notion, monstrosity is "historically conditioned": monsters reveal the conditions that produce horror by disrupting categories and identities that society clings to. Foucault has sim-

ilarly claimed that psychological fears take root as unconscious social mechanisms, which are the "effects of historical and cultural production." These unconscious social mechanisms have been internalized to such an extent that when they are disrupted, it threatens the community as well as individual identity (Halberstam, 1995, p. 6). The alternate logic of madness in both novels is presented not simply as the opposite of sanity but instead as different and entirely monstrous. Procuring ambient fear within the text and among characters also gives us the occasion to question the larger social discourse that reflects it.

In the scientific texts, the categories of brains are based upon a certain set of assumptions that need to be reinforced with social action; the Gothic helps us to see its instability via hybridity. As a concession, however, both Gage and the Modern Gage remained able-bodied and appeared to be as mentally capable as before the accident. Neither had impairments to speech, movement, memory, or intelligence. Their only difference was their nearly identical alterations in personality and conduct as "their ability to make rational decisions in personal and social matters was compromised, in contrast with their relatively intact general cognitive abilities" (Dimitrov et al., 1999, p. 350). They lacked respect for social conventions and concern for others due to the damage to each of their prefrontal cortices. This evidence supports the idea of cerebral localization in that the ventromedial prefrontal cortex is involved with facilitating emotion and social behavior (Dimitro et. al, 1999, p. 345). From a medical perspective relative to that time, both patients should have been completely biologically normal. Despite their normal neurological examinations, however, both patients displayed abnormal social behavior. This epiphenomenal change led to antisocial behavior, the byproduct of which serves as a critical distinction between the normal and abnormal and thus is an effectual justification for social action. These historical instances indicate the ways in which social standards can be easily shaken by the disruption of the binary of normal and abnormal mental health. This uncertainty and incapacity to categorize confuses the ability to mark the patients as completely "other" and misaligns them with societal standards. This disregard for social norms shakes the foundation of societal beliefs and values and threatens its safety. Nonetheless, what remains most horrifying about the hybrid figure is their embodiment of categorical failure.

## Conclusion

As society creates and evolves its understanding of madness, an analysis of the texts above reinforces this concept. Perspective is critical and focalization should seek to answer two separate questions: "Who speaks, and whose vision is presented [?]" (Culler, 2011, p. 88). In *Dracula*, Renfield's story is focalized through Seward and therefore the questions above pose two separate answers. This creates variables in terms of temporality and knowledge (Culler, 2011, p. 89). The reader is restricted by what Seward knows at the time of his narration and is limited by ignorance of Renfield's direct thoughts or cause of action. Rather we are solely given Seward's limited perspective, which even Van Helsing regards as prejudiced. There are things that Seward does not understand and therefore cannot explain. He is not omniscient; but human, biased, an insider, and, in essence, unreliable. Focalization and complications in narration further highlight the boundaries which Renfield violates. This is of consequence to the reader, who must actively read the underlying categorization that Renfield transgresses. Readers should analyze the texts both from the "insider" or "normal" perspective and from the perspective of the deviant, outsider, abnormal. It is critical to view the outsider's perspective and in doing so, one may realize the full extent of how stigmatized the deviant and damaged brain is. Madness, from the perspective of the mad, can convey an entirely different story. This concept can extend to society's general perception of atypical minds and seeking understanding of outsiders' perspectives.

Deeper analysis of Gothic horror mixes the normal and abnormal while medical texts separate the normal and abnormal. However, both are functioning in the same way by distinguishing the normal and abnormal at the level of their domi-

nant discourse. Both texts share a similar view of social functions; the medical texts display characters being designated as abnormal, the condition for which is appropriate for their medicalization, which helps show the Gothic qualities of the texts without necessarily drawing on them directly. The Gothic horror builds upon the long established themes of healthy versus pathological in neurological discourse. Seward, who represents a medical authority for the novel, and doctors in the medical texts, tries to distinguish between the normal and abnormal but Gothic horror effectively shows that, in moments of hybridity, the most horrifying aspect is the fact that such categories have failed. Each respective disciplinary field is functioning in a similar way to comment on social functions. Both have similar patterns and cultural structures to make similar interventions. Scientific texts have reactionary responses to allegations of deviancy, whereas the Gothic disciplining of deviance and rhetoric of texts is to establish the patient as deviant and therefore necessary to restore to normality. Gothic horror has the same authoritative discourse and disembowels the binary to reveal its artificiality and the amount of cultural work that is required to maintain such boundaries.

> *"it is apparent that normality is transformative and circumstantially tilted toward the side of those who control its definition."*

While the functioning brain serves as a metonym for the human in the above medical texts, Gothic horror makes reference to further question the reliance of normalized personality as the core of its essence. Medical texts and Gothic fiction alike have helped to address societal perceptions, stigmatizations, and the limits categories impose on humanity. The apparent mixture of the typical and atypical brain creates an intermediate that threatens fragile identities. However, it is apparent that normality is transformative and circumstantially tilted toward the side of those who control its definition. Studying abnormalities on a literary level thus can reveal conditions of the society with which they were written. Deviance, then, is not something that can be or should be categorized without first calling into question what "normal" is, what it entails, and why. It is not a question of who is normal and who is not normal, but rather what it means to be "normal." Work needs to be done to have more inclusive societal perceptions, projected on a spectrum rather than definitive boxes that are both stifling and immovable.

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