



TRANSMUTATIONS
OF BODY AND
MIND

Science, Gothic, and the Abhuman in
the Late 19th Century

Engelstilige Letterkunde

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Gothic in particular has been theorized as an instrumental genre, reemerging cyclically, at periods of cultural stress, to negotiate the anxieties that accompany social and epistemological transformations and crises.

- Kelly Hurley

Chemistry has it all: Mad scientists, world changing revelations, the practical, the impractical, medicine, bombs, food, beauty, destruction, life and death, answers to questions you never knew you had.

- Hank Green

I was then privileged or accursed, I dare not say which, to see that which was on the bed, lying there black like ink, transformed before my eyes. The skin, and the flesh, and the muscles, and the bones, and the firm structure of the human body that I had thought to be unchangeable, and permanent as adamant, began to melt and dissolve.

- Arthur Machen, The Great God Pan

Those who go beneath the surface do so at their own peril.

- Oscar Wilde, The Picture of Dorian Gray

*From the darkling woods they come,
On cloven hoof and twisted claw
The Beastmen they are called, these ones;
Less than human, yet also something more.*

- Warhammer

Abstract:

Wetenschap – en de wetenschappers die haar beoefenen – heeft sinds lange tijd een belangrijke plaats ingenomen in de Gotische roman, van *Frankenstein* tot *The Island of Dr Moreau*. Het laatste decennium van de negentiende eeuw vormt wat dat betreft een zeer bijzonder moment in de Victoriaanse literatuur. Dit decennium combineert de destabiliserende werking van wetenschappelijke ontdekkingen op imperialistische hegemonie en superioriteit met de gevoelens van imperialistische en morele neergang rond het fin de siècle. De Gotische literatuur verwerkt veel van deze angsten in haar literaire uitingen, en verkent en onderzoekt deze door deze angsten een monsterlijke vorm te geven. Zes boeken, namelijk *Strange Case of Dr Jekyll and Mr Hyde*, *The Great God Pan*, *Dracula*, *The Beetle*, *The Time Machine*, and *The Island of Dr Moreau*, geven een waardevol inzicht in deze periode in de Victoriaanse geschiedenis en in dit moment in de Gotische literatuur. De centrale vraag in deze thesis is: hoe beïnvloeden Darwiniaanse evolutie, fin de siècle angsten rondom degeneratie, en abhumane monsters de representatie van wetenschap en wetenschappers aan het einde van de Victoriaanse negentiende eeuw, en hoe wordt dit gereflecteerd in het geselecteerde corpus van boeken?

In deze thesis zal ik uiteenzetten hoe de hoofdthema's van wetenschappelijke ontdekkingen, Darwinisme, abjectie en abhumaniteit, en degeneratie in de bovengenoemde boeken zijn verwerkt, en hoe deze boeken reageren op deze thema's. Enkele andere belangrijke onderwerpen die terugkomen in meerdere boeken is de rol van hypnotisme, de plaats van de mens in de natuur en geschiedenis, en de relatie van de moderne Victoriaanse beschaving tot de Ander. Ik zal beargumenteren dat Gotische literatuur een centrale rol kan vervullen in het sociale debat over wetenschappelijke ontdekkingen en de ethiek van wetenschap, en dat deze vorm van literatuur nog altijd een belangrijke rol kan vervullen in het onderzoeken en bekritisieren van wetenschap.

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Introduction

Gothic literature has a long history, dating back to the late eighteenth century, and has developed various persistent motifs throughout the centuries, such as the vampire, the haunted house, and the potential monstrosity of science and technology (Punter xviii-xix). Various events contributed to the development of Gothic literature. One of these was the replacement of metaphysical and theological answers to the meaning of life and the nature of humanity by secular and materialist explorations of its nature and origin at the start of the industrial revolution (Punter 20). Another was Darwin's theory of evolution, especially of humans. This coincided with a growing sense of decline of Empire and human degeneration at the end of the nineteenth century, known as the *fin de siècle*. This last period, surrounding the decadent movement in the final decade of the nineteenth century, will be the focus of this thesis. During this decade, several prominent and influential works of Gothic literature were written, such as *Dracula*, *Dr Jekyll and Mr Hyde*, and *The Island of Dr Moreau*.

During the *fin de siècle*, several key themes can be found in Gothic literature. The first is Darwinian Gothic, centred around Darwin's theory of evolution, and especially his theory on human evolution, raising questions about the nature of humanity and the progression of humankind as a species. Darwin's theory of evolution stands out, but developments in other fields such as psychology and anthropology pose similar questions. In all works of the corpus science is the driving force behind the horror, either through its creation or its defeat. The second theme centres around Kristeva's theory of the abhuman, delineating that which is only vestigially human and in the process of becoming monstrous. A second concept related to this is the abject, that which cannot be objectively known, and therefore causes terror. The third theme is Nordau's theory of degeneration, which lies at the basis of the idea of *fin de siècle* sentiments, and postulates a general degeneration of society and humanity, as well as a sense of hysteria.

Several new studies have been written over the past decades. One of the central studies followed in this thesis, as discussed elsewhere, is *The Gothic* (2013) by David Punter and Glennis Byron, giving a wide ranging overview of the evolution and forms of the Gothic novel. Several more overview studies of Gothic literature have also been published recently: *The Victorian*

Gothic: An Edinburgh Companion (2012), by Andrew Smith and William Hughes, of whose collection Kelly Hurley's article, "Science and the Gothic," is most relevant; and *Gothic Literature* (2013) by Andrew Smith, whose chapter on the Gothic nineteenth century focusses on the internalization of monstrosity, Freudian doubling and the uncanny, racism, and degeneration. I hope to fit my discussion of the selected corpus of Gothic literature from the 1890's into this wider dialogue.

Several other recent publications have focussed on specific subjects within Gothic literature. In 2002, Peter Kitson wrote about the 1890s in his article, "The Victorian Gothic", in *A Companion to the Victorian Novel* by William Baker and Kenneth Womack. Kitson discusses the fin de siècle fears of degeneration, decline of Empire, and blurring gender boundaries, using *Dracula* as the defining example of the decade. Kelly Hurley connects the Gothic further with degeneration and the abhuman in her book, *The Gothic Body* (1996), providing a link to Kristeva's *Powers of Horror* (1982) on the subject of the abject and abhuman. The main focus of this thesis lies with the scientist, and with science itself. From the selected corpus, two major subjects come to the fore, that of hypnotism, and that of Darwinian evolution. The aforementioned article by Kelly Hurley discusses one of this thesis' main themes, hypnotism, extensively, as does William Hughes' *That Devil's Trick: Hypnotism and the Victorian Popular Imagination* (2015). The connection of Darwinism, degeneration, and the Gothic is discussed in several recent works, among which are John Glendenning's *The Evolutionary Imagination in Late-Victorian Novels* (2007) and Angus Fletcher's article, "Another Literary Darwinism" (2014). My aim is to connect several of the themes in the above recent publications, discussing them in relation to familiar literary works as well as several less mainstream ones, putting the focus mainly on the interplay of real world scientific development and discourse with the role of science and the scientist in fin de siècle Gothic fiction.

The central question in this thesis is: how do the rise of Darwinian evolution, fin de siècle fears of degeneration and the abhuman monster affect the representation of science and the scientist at the end of the nineteenth century, and how is this reflected in the selected corpus of fiction? For the corpus, I have chosen five books from the last decade of the nineteenth century. These are Robert Louis Stevenson's *Strange Case of Dr Jekyll and Mr Hyde*, *The Great God Pan* by Arthur Machen. Bram Stoker's *Dracula*, and two stories from H. G. Wells, *The Island of Dr*

Moreau and *The Time Machine*. I will also supplement my discussions of these books with some examples from *The Beetle* by Richard Marsh. These books cover the central topics of degeneration and the abhuman in Gothic fiction in the fin de siècle.

Methodological framework and theory

First, I will outline the genre of fin de siècle Gothic fiction and some of its themes that are particular to the corpus of books. Then I will set out the three theories mentioned above (Darwin and science, Kristeva, and Nordau) in a theoretical framework. In the main chapters, I will make an analysis of the book(s), exploring each of the abovementioned three aspects in relation to the novel. I will also look at various interpretations of each novel and discuss their merits, attempting to fit them in with the three main themes of this thesis. Finally, I will combine the conclusions and insights from these chapters into an overarching conclusion, and answer the research question posited above.

Themes of Gothic literature

In *The Gothic Body*, Kelly Hurley argues that the increased popularity of the Gothic genre during the fin de siècle reflects new and changing realities for its readers, and more broadly notes that “Gothic in particular has been theorized as an instrumental genre, re-emerging cyclically, at periods of cultural stress, to negotiate the anxieties that accompany social and epistemological transformations and crises.” (Hurley, *The Gothic Body* 5). Hurley places this revival of the Gothic genre in light of the fin de siècle anxieties about the nature of human identity, reflected in Gothic literature as a “horrific re-making of the human subject.” (Hurley, *The Gothic Body* 5). These anxieties are generated by scientific discourse in biology and sociomedical studies, which radically dismantled conventional notions of ‘the human’. Among these discourses are evolutionism, criminal anthropology, and degeneration theory (these will be discussed in more depth later), as well as sexology and pre-Freudian psychology (both of which fall outside the scope of this thesis). These scientific discourses reframe ‘human’ as abhuman, as bodily

ambiguous, or otherwise discontinuous in identity (Hurley, *The Gothic Body* 5). The fin de siècle (or Decadent) Gothic borrows from all these new scientific models, by showing monstrous characters transforming into beasts, changing their mental and physical identity, and by having ambiguous gender identities both in body and mind.

Punter notes several themes of Gothic literature of the decadent period. Firstly, he notes the emergence of the genre of imperial Gothic, blending the adventure story with Gothic elements. Imperial Gothic focusses on the colonies, from whence the threat of degenerating influences on civilized man is perceived to come. Related to this is the fear of England itself being invaded and contaminated by an alien world (reflected in the genre of invasion literature). However, the English city, especially London, is also viewed as an important source of degenerating influences (Punter 40). These contradicting fears of internal and external degenerating influences reflect a central fear of Gothic horror, namely that seemingly external forces of degeneration are internal to modern humanity and civilization. This can be seen most strongly in *Dracula*, where the actions of the heroes reveals the instability of Western hegemony, and reveals the Orientalised past lurking beneath the civilized surface. The trope of a degenerative London can be found in many Gothic fictions partially or fully set in that city, such as *Jekyll and Hyde* and *The Great God Pan*. Kitson also suggests a link between these fin de siècle fears of imperial decline and the decline of the Roman Empire (Kitson 168-169). This connection with the Romans is also explicitly made in *The Great God Pan*. This is another example of Gothic literature exposing the past of civilized Britain as rooted in an Orientalized, Othered world, revealing the degenerating influence on civilization as internal to its own formation, instead of an external, evil influence from a monstrous Orient.

The second theme of the Gothic is the fear of the hidden nature of humanity. This can be seen in the fear of female sexuality, as well as transgressive male homosexuality. Another aspect of this fear is that of duality, of the doppelgänger, for example that of Dr Jekyll who changes into his own evil side, Mr Hyde, or the sexual deviancy shown by Dorian Gray in *The Picture of Dorian Gray*. Punter suggests that the real issue here is not the more primitive side to humanity, but the force that is required to suppress this side. Repression thus leads to a split psyche in the former case, and temptation in the latter. Decadent Gothic texts also deal with multiplicity, especially through metamorphosis of the human into something else, identified by Kelly Hurley

and Kristeva as the abhuman (which will be discussed further in a later section). The abhuman inhabits the space between opposites such as human and beast, male and female, civilized and primitive, as can be seen in for example *The Island of Dr Moreau* or *The Great God Pan* (Punter 40-41). The chief aspect of the abhuman is that of transformation, of becoming something else entirely. This can take the form of humans transforming into beasts, of creatures taking on ambiguous sexual characteristics, or of civilized humans becoming primitive. The abhuman thus embodies the hidden nature of a seemingly stable human subject, destabilizing that subject and creating the sensation of abjection. Abjection forms the core of Gothic horror, being a feeling of dread at the disturbance of order that cannot be subjectively described, but still felt keenly.

The third theme suggested by Punter is that of the connection between the abhuman body and science. These abhuman bodies are not (or not chiefly) produced by the supernatural, but by scientifically demonstrable processes, often focussed on chemistry and medicine. Punter notes that the scientist becomes the central figure of Gothic fiction around the fin de siècle. Materialist science, amongst them criminal anthropology, attempted to identify and categorize the abnormal and alien, the “agents of dissolution and decline” (Punter 41-42). This led to the first attempts at criminal profiling, for example in the Jack the Ripper murders. But science could also challenge and disrupt the stability and integrity of the human subject (Punter 42). An extension of this is Darwinian Gothic, which centres on fears of dissolving boundaries between human and beast, and the implication of evolution that suggests a reverse evolution is also possible. This also leads to Nordau’s theory of degeneration (Punter 42-43), which will be discussed further in the section on degeneracy and hysteria.

The role of science and Darwin in Gothic literature

One of the central themes in the depiction of science in decadent era Gothic fiction is that of evolution. This interest in evolution was sparked by Darwin’s work, *On the Origin of Species*. This book discusses the variability of hereditary traits amongst domesticated and wild animals, the “Struggle for Existence amongst all organic beings,” and natural selection (Darwin, *On the Origin of Species* 11-13). In his later publication, *The Descent of Man, and Selection in Relation to Sex*, Darwin focusses on the evolution of humans, and argues broadly speaking that humanity

had descended from other animals, and was not specially created (Darwin, *The Descent of Man* viii). Darwin himself formulates the aim of this latter work as “firstly, whether man, like every other species, is descended from some pre-existing form; secondly, the manner of his development; and thirdly, the value of the differences between the so-called races of man.” (Darwin, *The Descent of Man* 2-3). He continues to discuss the evolution of physical and mental traits, natural selection on civilized and primitive societies (later known as social Darwinism and eugenics), and the unity of the human species (as opposed to classifying different races as separate species).

Brian Baker argues that Darwin’s theory of evolution had the most influence in the social and political fields. Baker contrasts Darwin’s theory of natural selection with the theory of progressive selection held by the English church, which argued that natural and human history were theological processes, in which all evolutionary development followed a clearly defined path from primitive to advanced, with a clear end goal for development of species. History was seen as progressive [or teleological], which for the Victorians meant that humanity was always progressing towards a more developed, more civilized, and more sophisticated state, informing their social and industrial projects (Cartwright 199-200). Darwin’s theory formed a threat to this system of progressive history by declaring that there was no direction or goal to human development, and suggesting that evolution could go both ways.

The influence of science on Gothic literature goes beyond Darwinian horror. In “Science and the Gothic,” Kelly Hurley describes how scientific knowledge and theory is incorporated in Gothic literature of the fin de siècle. Near the end of the nineteenth century, debates cropped up over the mechanisms and dangers of hypnotism, especially of (post)hypnotic suggestions overriding the free will and moral code of the hypnotized subject. In literature, hypnosis could take the form of mysterious supernatural force [often called mesmerism], or of scientifically explainable yet uncanny process, or as quasi-occult phenomenon that blurred the line between supernatural and scientific. Monsters could follow the laws of evolution, or be modelled on pathological models of criminals, perverts, or the insane. For instance, Dracula is not only a supernatural creature, but is also supposed to be a model of the atavistic criminal type described by criminal anthropology, or chemical and geological processes that drive evolution in unexpected and strange ways (Hurley, “Science and the Gothic” 171-172).

William Hughes adds medical science to this list of scientific influences on Gothic literature. The emergence of clinical sexology moved the physical and moral basis of human sexuality away from religion and into secular fields of psychology and physiology, and allowed for new cultural expressions of monstrosity and deviancy. In this new era of science, temptations, desires, obsessions, and fixations came from within the self, rather than from a deviant Other, i.e. the devil. Mental and physical disability could now also be recognised as having pathological causes rather than being divine punishment, and could be traced to the immoral behaviour of ancestors (Hughes 186). This process of scientific insights into the human psyche “ ‘transformed the supernatural into the pathological, and monsters into perverts’ ” (qtd. In Hughes 186). This introspection on human nature also extended the possibility of deviancy to all humans, regardless of virtue or health (Hughes 186). Medicine, and by extension, chemistry plays a large role in Gothic fiction of the fin de siècle. Hughes notes that the discourse of medicine involves “[t]he casuistry of rhetoric, rather than the mystery of the human body” (Hughes 188). Hughes notes that medical procedures not only have to be demonstrated, but justified as well. This connects the area of medicine with that of law, and in particular ethics (Hughes 189). The ethics of medical practice will also be seen in several works in the corpus.

The abject, the abhuman and the monstrous

The role of the scientist in Gothic fiction is often to reveal the abhuman aspects of humanity, creating monsters and forming or causing the central source of horror. In her book, *Powers of Horror*, Kristeva defines the abject as that which lies outside of “the scope of the possible, the tolerable, the thinkable”, and which cannot be “assimilated” into normal experience (Kristeva 1). According to Kristeva, the abject both attracts and repulses the subject, placing the subject outside itself. The abject is not something which can be faced or captured in a system of Otherness, but is only defined by its opposition to the *I*, or Ego. However, when one’s attention is drawn to the abject, no definite object can be found, and meaning collapses. A confrontation with the abject invokes a feeling of uncanniness, the feeling of being familiar yet strange (Kristeva 1-2). Kristeva mentions as one example the feeling of repulsion towards the improper and unclean, such as food that disgusts the eater, or the presence of a corpse. The abject here is that what we

normally thrust aside in order to live: the stench of death or the sight of an open wound, makes the observer aware of the border between life and death, from which the living wishes to retreat instinctively (Kristeva 2-3). Kristeva notes: “It is . . . not lack of cleanliness or health that causes abjection but what disturbs identity, system, order. What does not respect borders, positions, rules. The in-between, the ambiguous, the composite. The traitor, the liar, the criminal with a good conscience, the shameless rapist, the killer who claims he is a savior.” (Kristeva 4). It is not rejection of morals (amoral), but the distortion of those morals (immoral), that creates abjection (Kristeva 4). Thus, the abject is that which is rejected by or disturbs social norms. However, this abjection can also exist on a personal level. In both these cases, the abject invokes the taboo, that which is rejected by the individual or society as not being allowed to exist. In this sense, the abjection lies in invoking a taboo, such as a personal phobia of beetles or a cultural fear of negative influences of the foreigner.

In *The Gothic Body*, Kelly Hurley characterizes British Gothic fiction at the fin de siècle as the location of:

[t]he ruination of the human subject. . . . the ruination of traditional constructs of human identity that accompanied the modelling of new ones . . . In place of a human body stable and integral . . . the *fin de siècle* Gothic offers the spectacle of a body metamorphic and undifferentiated; in place of the possibility of human transcendence, the prospects of an existence circumscribed within the realities of gross corporeality; in place of a unitary and securely bounded human subjectivity, one that is both fragmented and permeable. Within this genre one may witness the relentless destruction of ‘the human’ and the unfolding in its stead of . . . the ‘abhuman.’ The abhuman subject is a not-quite-human subject, characterized by its morphy variability, continually in danger of becoming not-itself, becoming other. (Hurley, *The Gothic Body* 3-4)

The abhuman is a subject in transition, as suggested by the prefix ab-, which signals both a movement away from one condition and a movement towards another (Hurley, *The Gothic Body* 4), in other words, a body in a state of metamorphosis. Hurley links the abhuman to Kristeva’s conception of the abject, which Hurley describes as:

the ambivalent status of a human subject who, on the one hand, labors to maintain (the illusion of) an autonomous and discrete self-identity, responding to any threat to that self-

conception with emphatic, sometimes violent, denial, and who on the other hand welcomes the event of confrontation that breaches the boundaries of the ego and casts the self down into the vertiginous pleasures of indifferentiation. (Hurley, *The Gothic Body* 4)

This outcasting of the self results in nauseating anxiety, but embracement of abjection in turn results in *jouissance*, a transgressive, excessive kind of pleasure similar to lust. Hurley argues that this ambiguity between repulsion and *jouissance* lies at the core of fin de siècle Gothic:

“convulsed by nostalgia for the ‘fully human’ subject . . . and yet aroused by the prospect of a monstrous becoming.” (Hurley, *The Gothic Body* 4).

Darwin’s theory of evolution had a marked effect on the development of the abhuman monster in Gothic literature. Lloyd-Smith notes that “Darwinian ideas produced a crisis in familiar conceptions of the status of the human, intensifying anxiety about the body and about the role of genetic inheritance and unsuccessfully repressed instinctual behaviour.” (Lloyd-Smith 110). These anxieties were directed against both female (see *Dracula*) and male (see *Jekyll and Hyde*) bodies. Lloyd-Smith points out that the main focus of this Darwinian dread lies in the fear that the human essence may not exist at a deeper level: the Gothic past is a *biological* (as opposed to divine) past, a less evolved past that opens up the possibility of slipping back into a more primitive state (Lloyd-Smith 111).

Degeneracy and hysteria

Punter describes a resurgence in Gothic literature in the late nineteenth century with works such as *Jekyll and Hyde* and *Dracula*, amidst growing societal fears about national, social, and psychic decay. Punter notes that England as an imperial power was in decline and being superseded by other nations, and experiencing growing moral questions about the morality of its imperial mission, as well as growing unrest in the colonies. The social and psychological effects of the Industrial Revolution became ever more apparent with great increase in disease and crime in the cities. The rise of feminism and growing awareness of homosexuality caused increasing disruption of traditional family values and structure, threatening the moral superiority of the middle class. These developments in English society became reflected in Gothic fiction by the general theme of degeneration (Punter 39).

Nordau provides a contemporary view of degeneration in his book, *Degeneration*, published in 1892, putting it at the centre of discussions around societal degeneration, and providing a definition of that degeneration and fin de siècle malaise. Nordau begins his discussion of degeneration by defining the term fin de siècle as “[t]he prevalent feeling . . . of imminent perdition and extinction” at the end of the nineteenth century (Nordau 4). Nordau characterizes the sentiment at the end of the century as “the impotent despair of a sick man, who feels himself dying by inches in the midst of an eternally living nature blooming insolently forever. It is the envy of a rich, hoary voluptuary, who sees a pair of young lovers making for a sequestered forest nook” (Nordau 4). Nordau notes that while the term is stereotyped abroad as merely referring to the indecent and improper, examples of fin de siècle situations share in common “a contempt for traditional views of custom and morality” (Nordau 5), in other words, a breakdown of the traditional social order. Nordau then sets out what fin de siècle means to various kinds of personalities: to the voluptuous, it means unbridled lewdness; to the egoist, disdain for the wellbeing of his fellow man, a breakdown of the barriers against greed and lust; to one looking down on the world, it means the ascendancy of base impulses and motives; to the believer it means the repudiation of dogma, negation of a supersensuous world, and descent into phenomenalism; to the aesthete, it means the vanishing of artistic ideals, and the loss of emotional power of accepted forms (Nordau 5). It means the end of an established order, one epoch of history making room for a new one. Nordau posits that the masses, in their uncertainty over the future, turn to art, music, and writing for a vision of the future, a suggestion of the next step of civilization, and what new values that next step will bring along with it (Nordau 5). From this stems the Decadent movement that gives this decade its name.

Nordau, taking a physician’s view, then goes on to suggest that the fin de siècle disposition, both in artistic expression and the consumption of and reaction to that art, leads to a “confluence of two well-defined conditions of disease . . . degeneration . . . and hysteria, of which the minor stages are designated as neurasthenia [mechanical weakness of physical nerves]” (Nordau 9). Nordau quotes Bénédict Morel’s definition of degeneracy, being:

a morbid deviation from an original type. This deviation, even if, at the outset, it was ever so slight, contained transmissible elements of such a nature that anyone bearing in him the germs becomes more and more incapable of fulfilling his functions in the world; and

mental progress, already checked in his own person, finds itself menaced also in his descendants. (qtd. in Nordau 9)

Here, the idea of evolutionary selection shows itself in connection with human behaviour: the idea that socially unacceptable behaviour does not just affect the individual, but, through evolutionary pressure, also their offspring, causing a reverse evolution, or degeneration of the human species. Nordau also refers to Cesare Lombroso's theory of physiognomy in criminals, but argues that the deformities of degeneracy apply to all degenerates, not just the criminal type. Nordau adds that these deformities are mental as well as physical (Nordau 9).

Of hysteria Nordau notes that this is found among men as well as women, and refers to the definition of Colin, who identifies the leading characteristic of hysteria as "the disproportionate impressionability of their psychic centres... They are, above all things, impressionable." (qtd. in Nordau 12), from which follows their second characteristic, their tendency to yield to suggestion. Nordau notes that "[a]dded to this emotionalism and susceptibility to suggestion is a love of self never met with in a sane person in anything like the same degree." (Nordau 9). This hysteria can be seen in several works in the corpus under study here, for example in the social treatment of Hyde in *Jekyll and Hyde*, or in the behaviour of Lessingham in *The Beetle*, or the susceptibility to hypnotism by Dracula and the Beetle, which can be seen as the ultimate form of suggestibility.

Science, the abhuman, and degeneration

Putting all the above together, a clear picture emerges of the role that science plays in the development of fin de siècle Gothic fiction. Through the work of scientists in the fields of biology, chemistry, psychology, criminal anthropology, and medical science, the previously stable, progressive, and divinely appointed human being becomes changeable, subject to the forces of nature, and firmly placed within the realm of animals. Where the human body was once divine and perfect, now it is susceptible to the forces of evolution, rooted in a primitive past that lurks under the surface of civilization. Similarly, the human mind is no longer stable, but subject to primitive forces, susceptible to outside forces like hypnosis, which subvert free will and autonomy. This destabilizing of body and mind brings with it the threat of degeneration of the

individual, a falling back into a lower, more primitive form, and through evolution the degeneration of the species as a whole, setting back the progress of civilization.

This idea of degeneration of humankind looms large in fin de siècle fears of decline of Empire and extinction of the species. This feeling of fin de siècle malaise brings with it a contempt for the established order of civilization, and a sense that upheaval of social norms is at hand. This disposition, expressed in a cycle of artistic expression and consumption, then leads to the abovementioned degeneration, as well as hysteria, a state of heightened impressionability, suggestibility, and sense of ego.

The disturbance of social norms brought on by fin de siècle artistic expression invokes a sense of the abject, a feeling of repulsion towards that which is rejected by or is a disturbance of social norms. This sense of abjection is usually directed towards societal and personal taboos. With the destabilizing of the human subject, the abject now becomes a threat from within humanity, a threat of primal urges overriding the constraints of civilization, destabilizing the human body and mind. This destabilization is expressed in the abhuman, the human being in transition from one condition to another, a state of metamorphosis. In the abhuman subject, the abject features as a threat to the illusion of autonomy and identity, which is met with nauseating anxiety. Embracement of the abject, however, brings a sense of jouissance, a transgressive, excessive sense of pleasure at the breaking of social norms. This ambiguity between repulsion and jouissance lies at the heart of fin de siècle Gothic, in the form of a sense of nostalgia for the fully human subject, coupled with a sense of arousal at the prospect of transformation into something abject, something monstrous, a breeching of traditional values.

1. Strange Case of Dr Jekyll and Mr Hyde

Unable to create a meaningful life for itself, the personality takes its own revenge: from the lower depths comes a regressive form of spontaneity: raw animality forms a counterpoise to the meaningless stimuli and the vicarious life to which the ordinary man is conditioned.

- Lewis Mumford

Robert Louis Stevenson's *The Strange Case of Dr Jekyll and Mr Hyde* was published in 1886. It is the story of a scientist who discovers a means of splitting his personality into a good and evil side, using the split to live a hedonistic life free of social restraints. Jekyll slowly begins to lose power over his freed evil side, transforming into Hyde involuntarily, eventually unable to return to his normal state when his chemical means of transformation fails him.

The main theme of this chapter deals with Darwinian Gothic, which Punter notes articulate "fears about the integrity of the self" (Punter 42). This fear centres around Darwin's theory of evolution, which "dissolved the previously accepted boundaries between human and animal" (Punter 42). The first part of this chapter explores the most straightforward interpretation of this Darwinian Gothic, namely the (perceived) animalism of Hyde. This animality finds its expression through references to a more primitive humanity, and suggestions of the degenerative, de-evolutionary nature of Hyde. The second part will focus on the mental and moral aspects of Darwinian Gothic. Where the first part focusses on the physical degeneration of Hyde, the second part explores how the destabilization and splitting of Jekyll's personality disrupts the binaries of good/evil and heterosexuality/homosexuality which define Victorian identity. Finally, the third part of this chapter will explore how *Jekyll and Hyde* reflects on wider British society and its interpretation of and interaction with evil.

The animal within: Hyde's deformity

Throughout the novel, Hyde is described in terms of deformity and animality. In his first description, Enfield invokes feelings of abjection at his appearance: "There is something wrong with his appearance; something displeasing, something downright detestable. I never saw a man I so disliked, and yet I scarce know why. He must be deformed somewhere, he gives a strong sense of deformity . . . I can make no hand of it; I can't describe him." (Stevenson 15). Here, Hyde is shown as abject because there is a feeling of uncanniness about Hyde that cannot be clearly defined. Hyde is also described as "pale and dwarfish," with a "displeasing smile," and "a husky whispering and somewhat broken voice," and as having "a sort of murderous mixture of timidity and boldness" (Stevenson 23). Utterson too experiences "disgust, loathing and fear" at the sight of Hyde, reinforcing the sense of the abject in Hyde. Utterson adds to this the suggestion of inhumanity, saying Hyde seems "hardly human! Something troglodytic, shall we say? or can it be the old story of Dr Fell? or is it the mere radiance of a foul soul that thus transpires through, and transfigures, its clay continent? . . . If ever I read Satan's signature upon a face, it is on that of [Hyde]." (Stevenson 23). Here, Utterson conflates the troglodyte, or cave dweller, with the demoniac, creating an image of primitive evil.

Jekyll interprets the duplicity of his public and private sides as an inherent multiplicity of human nature, and suggests that "man will be ultimately known for a mere polity of multifarious, incongruous and independent denizens." (Stevenson 70). This can be linked to degeneration, specifically the dissolution of the nature of man as a unified whole into separate, distinct entities, hidden beneath a respectable exterior. Hyde, at first, is the weaker half due to this side of Jekyll having been repressed for so long. However, as Hyde indulges in his freedom, he grows stronger, resulting in Jekyll's involuntary transformations into Hyde. It also becomes harder for Hyde to transform back into Jekyll. This dissolution of Jekyll's character into that of Hyde neatly fits Nordau's definition of degeneration: "*a morbid deviation from an original type. This deviation, even if, at the outset, it was ever so slight, contained transmissible elements of such a nature that anyone bearing in him the germs becomes more and more incapable of fulfilling his functions in the world*" (qtd. in Nordau 9). Jekyll, once capable of releasing the shackles of social control through Hyde, becomes physically and mentally deformed, and more and more incapable of

hiding this deformity through the aid of science. This is also reflective of the theme of addiction discussed in the next section.

In her book, *Skin Shows*, Halberstam notes that “[c]ritics have considered *Dr Jekyll and Mr Hyde* as an allegorical treatment of Victorian preoccupations with the instability of body and mind.” (Halberstam 77-78). She describes these preoccupations as “a popular concern with infectious diseases such as syphilis and tuberculosis . . . and a post-Darwinian fear that evolution may be reversible, that, indeed, degeneration was both the symptom and the illness of the age.” (Halberstam 78). Halberstam argues that racial thinking has been a reaction to these fears of degeneration and infection by establishing the idea of racial purity. Halberstam further notes that film adaptations build on a “racial Darwinian undercurrent” (qtd in Halberstam 78). She argues that, when following this racial interpretation of Jekyll and Hyde, “[t]he battle for dominance within Dr Jekyll and his other side, Mr Hyde, suggests Gobineau’s warring races within one body and produces a monster out of the threat that a wave of immigration in London in the 1880s posed to the concept of national character.” (Halberstam 79). In this interpretation, fear of the evolutionary remnants of primitive nature under the surface is mixed with fear of the Other intermixing with the English population. This view, however, is most strongly borne out by stage and film adaptations, and remains only an undercurrent in the novel, although some of the language of degeneration and de-evolution is clearly there.

Forbidden pleasures and loss of control

The depiction of Hyde described above focusses mainly on the physical degeneration of Hyde. This section focusses on the mental and moral degeneration that Victorians perceived as a result of Darwinian theory. A central theme here is that of loss of control over the self and addiction. In her article, Katherine Bailey Linehan discusses several interpretations critics have offered of Hyde’s unmentioned activities. The first interpretation is simply that these hidden activities are a means to challenge the Victorian reader’s imagination in order to “explore a wide range of possibilities, with the effect of both increasing allegorical breadth of meaning and Gothic intensity of dread.” (Linehan 89). Linehan refers to Andrew Jefford as an example, who notes that by leaving this aspect up to the imagination, nothing is excluded from the potential list of

sins and cruelties that Hyde can commit in Victorian London (Linehan 89). Linehan also refers to Halberstam, who argues that multiple interpretations of the text add to the experience of horror when the reader realizes “ ‘that meaning itself runs riot’ ” (qtd in Linehan 89). This reading can be seen as a heightening of the sense of abjection surrounding Hyde, since his misdeeds remain amorphous. It is the absence of explicit meaning that creates the sense of horror, which can be linked to the sense of the abject, which, too, defies rational description.

One critical interpretation is that of Hyde as representative of alcoholism or drug abuse. In this interpretation, Hyde stands in for the “ugly personality transformations growing out of addiction” (Linehan 89). As Linehan notes, this interpretation works very well with Jekyll’s increasing loss of control over Hyde, even as he assures his friends that he is in control and can be rid of Hyde any time he wants. It also fits the feeling of heady recklessness and sensuous vitality that Jekyll gains after his transformation. This fits well with the general theme of loss of control running through this thesis. The increasingly uncontrollable transformations of Jekyll into Hyde are a further reinforcement of this theory, as is the focus on chemistry as the mode of these transformations. A related interpretation is that Jekyll enjoys “the Victorian gentleman’s sport of slumming, hobnobbing with the poor in their gin palaces, music halls, and brothels” (Linehan 89), in which case Hyde represents Jekyll’s uncivilized, rabble rousing side. This interpretation supports political readings of the work, which take two opposing views: “as a radical protest against bourgeois repression, or, alternatively, as a conservative evocation of a threat of degenerative, apelike savagery among the British working class, the rebellious Irish, the immigrants of Soho, or the foreign subjects of Empire.” (Linehan 89). Of this interpretation, the latter seems to hold the most water, given the explicitly degenerative descriptions of Hyde, which engenders fin de siècle fears about degeneration of the lower classes. This loss of control through addiction forms an internal counterpart to the loss of control through hypnotism and mesmerism, which will be discussed more in depth in later chapters. In both addiction and mesmerism, the subject loses his grip on his free will. In this regard, Jekyll forms an interesting contrast to other characters who lose their free will to Dracula and the Beetle. Whereas the victims of the latter two are victimized by external, Orientalized threats to Empire, Jekyll is a victim of his own scientific endeavours. Similarly to van Helsing and Atherton, scientific discovery threatens the stability of Western hegemony and stability. With Dr Jekyll, however, this destabilization comes

not from without, but from within, by destabilizing the Western notions of individuality and the binaries of good/evil and heterosexual/homosexual.

The notion that Jekyll and Hyde are merely a binary ‘good’ and ‘evil’ has already been undermined by Jekyll’s assertion that “man will be ultimately known for a mere polity of multifarious, incongruous and independent denizens.” (Stevenson 70). In *The Gothic Body*, Hurley notes:

The human being embroiled within such a Manichæan drama is split in two, but nonetheless fully situated in the field of meaningfulness, wherein meaning arises through the constant and steady tension between terms fixed in an oppositional relation one to the other. But to be a multiple subject – not simply split, but fractured, dissolved – is to spin out of the field, and thus to be evacuated of a meaningful self-identity. (Hurley, *The Gothic Body* 42)

Hurley further discusses Kristeva’s notion of abjection, the “repulsive yet intriguing possibility of loss of self-identity” (Hurley, *The Gothic Body* 42). This reaction of abjection has already been shown in Lanyon’s reaction of ‘disgustful curiosity,’ as well as Jekyll’s horror of and fascination with Hyde. Notably, Hurley mentions that Kristeva’s definition of the abject refers to a more primordial state of emotion (Hurley, *The Gothic Body* 42). In the light of the interpretation of Hyde as repressed homosexuality in Jekyll, this shows an abjection of homosexuality as something ‘primordial’ present under the surface of civilization, as can be inferred from the story’s reference to the ancient Greek text of Damon and Pythias, a classical example of positive homosexuality. Thus, the figure of Hyde is revealing of fears of the homosexual that come not from external influences, but from within human nature, and from within Western civilization itself. In this manner, the novel draws a line from the cradle of Western civilization (namely, ancient Greek and Roman society) to the modern Victorian era, placing homosexuality firmly in that idealized Western past, thereby questioning its position in modern Victorian culture.

The Hyde inside us and the nature of evil

Whereas the previous sections focus on the physical and mental degeneration impacting Victorian society on a personal level, this section focusses on society’s response to Hyde, and its

reinforcement of socially mandated morality. In *The Nature of Evil*, Daryl Koehn discusses the nature of evil as hypocritical repression in *Jekyll and Hyde*. Koehn refers to Stevenson's theory that societal hypocrisy prevents individuals from becoming self-aware, teaching people from childhood to repress certain feelings. This creates a dark side to each individual that remains unexpressed and unknown to themselves. There still remains a vague awareness of these suppressed images and feelings, Koehn argues, creating feelings of dread and melancholy. Stevenson "shows how morality is the hypocritical engine behind the deviance", reinforcing melancholia by demanding conformity, and, when individuals rebel against conformity, "[living vicariously] through the outbreak of [their] animal spirits." (Koehn 88).

Koehn notes that *Jekyll and Hyde* is conventionally read as a straightforward Victorian morality tale, echoing Aristotle's moral teachings that "repeated acts confirm us in our wrongdoing, destroy our power of choice, and make us irredeemably evil" (Koehn 90). Koehn argues that this comforting isolation of evil in an individual is too simplistic, as the evil in the story cannot be so tidily confined to either Jekyll or Hyde. Koehn notes that Hyde is exclusively seen through the eyes of others, mostly older professional men. Connections with women are suppressed, and Koehn identifies this as part of the problem. Koehn then discusses the character's inability to describe Hyde objectively, only subjectively (as discussed earlier, the abject aspects of Hyde enforce this subjectivity). Koehn sees this subjectivity in Hyde as representation of the hidden, suppressed aspects of personality that engender feelings of abjection (Koehn 90-91).

Koehn then describes the crux of this reaction of abjection to Hyde:

Hyde is more than the expression of all that Jekyll finds shameful. Hyde represents the universal or archetypal shadow self whom we disown and hide. Given that each of us finds different traits shameful, we cannot specify the features of the universal shadow. . . . Since the main characters in this tale are male, the shadow Hyde is also masculine. (Koehn 93)

Hyde is that part of our personality not supported by society or ourselves, Koehn argues, and the Hyde inside us can strike us as repellent because some of those parts are objectively unjust (Koehn 93). This reading complicates the routine reading of Jekyll and Hyde as a binary good/evil character. Instead of a monstrous Other external from society, Koehn places the

antagonist Hyde within that society, fitting into the wider trend observed by Andrew Smith of the internalization of the Gothic monster.

Further destabilizing the binary good/evil reading of Jekyll and Hyde, Koehn notes that not all of Hyde's aspects are negative. Koehn argues that the Hyde side of a personality needs to find some kind of expression for the individual to be a healthy whole, and notes that this expression of repressed traits is a civilizing force as well, noting that civilization advances when individuals discern new modes of communication or hit upon undiscovered ways to perform tasks. These ideas begin in our fancy or imagination. The imagination makes present what is absent and gives rise to inventions. Civilization progresses and our tastes mature when we draw on the resources and energy of our imaginative and suppressed selves. (Koehn 95)

Koehn argues this by pointing out that Hyde's lodgings are furnished "every bit as civilized and refined as Utterson's or Jekyll's" (Koehn 95), demonstrating that for all his detractor's descriptions of degenerate barbarity, Hyde is no less civilized than Jekyll. The reactions of others to Hyde then become reflections of prejudices and fears in society (Koehn 96). The monstrous is internalized into Victorian society, and the binary morality is destabilized and revealed as a social construct that covers up the true nature of what society deems monstrous.

However, Koehn also notes that overindulgence in this repressed side leads to problems as well. Koehn argues that "[l]ike a tyrannical spoiled child, Hyde has become intent on one thing: getting what he wants. Jekyll does nothing to educate his childish, desiring self. Instead, he gives Hyde completely free rein." (Koehn 97). Koehn then describes where the evil in the story lies:

Although our Hyde is not evil, our irresponsible indulgence of previously repressed desires or impulses may qualify as such. Evil resides less in the mischief (often unintended) caused by our overly indulged appetites and more in our careless refusal to educate our desires and to use our reason to explore which talents are worthy of being realized. Under pressure from the collective, we treat those desires that do not accord with our social persona as wicked and as completely alien to us. Although Hyde and Jekyll are one man, Jekyll starts to dissociate himself completely from the persecuted Hyde and to

drive his desires ever deeper into the shadows. Uninstructed and unexamined, these alienated desires wreak havoc. (Koehn 97).

This, then, lies at the core of Jekyll's ultimate demise. Left unchecked, an overindulgent Hyde begins to cross lines into objectively bad behaviour, and strengthens Hyde to the point of taking over as the primary part of Jekyll's personality: no longer repressed, Hyde rises more and more to the surface of Jekyll's personality, eventually becoming the defining part of the whole.

Evil in the story thus comes from three causes: objectively bad actions (Hyde's murder), inaction (Jekyll's indulgence of his repressed side), and societal repression of positive but unaccepted aspects of the personality. Koehn expands on this societal reaction to Hyde, revealing the mass hysteria inherent in their reaction. Of note is the scene at the beginning of the novel, depicting the child being trampled by Hyde. While it is clear it was a mere accident, and the child was not seriously hurt at all, the crowd quickly turns into a mob out to lynch Hyde, and the men of the story vow to ruin Hyde's reputation, in lieu of killing him outright. This murderous overreaction, Koehn argues, stems from their own repression of their personal desires, which they recognize in Hyde (Koehn 98). Returning to Nordau's definition of hysteria as emotionality, suggestibility, and egotism, this can all clearly be seen in the reaction to the accident with the child. Koehn also points out the moral myopia of the situation: the child was sent out at 3 am, unsupervised, for a task much better suited for an adult. It is their callous indifference, not Hyde, which has put the child at risk. Koehn notes that "[i]nstead of owning up to this neglect, the parents and other adult members of the crowd project their sense of shame onto Hyde and convert him into a child-molesting monster." (Koehn 99). He further points out that this scene of injustice towards Hyde (hysterical blaming and blackmail) lies at the start of Hyde's increasing dangerousness. The personal evil of Hyde as repressed and overindulged side of the individual is reinforced and propelled by the societal evils of collective repression, prejudice and hatred. This, then, is the nature of evil in *Jekyll and Hyde*: not merely personal evil, but the interaction of personal and societal repression with prejudice and hysteria.

Conclusion

In conclusion, *Jekyll and Hyde* explores physical and mental aspects of Darwinian horror, as well as society's response to the destabilizing threat posed by Hyde. On the physical side, the language used to describe Hyde is couched in evolutionary language, describing him in terms of degeneration into a more primitive human form. This degeneration is also linked with the theme of loss of control and (as noted by Halberstam) the Victorians' fears surrounding the instability of body and mind. The fear of loss of control is also connected to the progress of (chemical) science, which allows for the destabilization and splitting of the mind, and therefore threatens to destabilize Victorian notions of self-identity. This ties into the theme of abhumanness, where a body (and by extension, its identity) is in a state of transformation. As Koehn also notes, Hyde is not an external intrusion, but comes from within Jekyll's personality, and by extension from within human nature itself.

The novel also comments on the interaction of society with the individual and society's construction and enforcement of morality. Societal forces act as a catalyst on the creation and transformations of Hyde. It is through the repressive forces of society that a repressed side is created in a person in the first place, and this same repression drives the individual to find covert ways of expression of this forbidden side. When discovered by society, this results in hysterical overreaction by society, which is fuelled by that same repressed side of society against which it rallies. By persecuting the transgressive individual, society is able to vent its own suppressed desires vicariously through their victim. This happens on a passive level, by invoking imagery of the abhuman, the uncanny, as well as the evolutionary degenerate, as well as on a more active level, through blackmail and persecution.

2. The Great God Pan

... an infinite silence seemed to fall on all things, and the wood was hushed, and for a moment in time he stood face to face there with a presence, that was neither man nor beast, neither living nor dead, but all the things mingled, the form of all things but devoid of all form. And in that moment, the sacrament of body and soul was dissolved, and a voice seemed to cry 'Let us go hence,' and then the darkness of darkness beyond the stars, the darkness of everlasting.

- The Great God Pan

Arthur Machen's story, *The Great God Pan*, was published in *The Whirlwind* magazine in 1890, and appeared in book form in 1894. The story centres on a scientific experiment to unlock a connection to the realm of the occult and the resulting consequences. The experiment aims to lift the veil between our world and the 'real' world, where the gods live, referred to as 'seeing the god Pan'. The experiment is successful in lifting this veil in the female subject, Mary, but the experience destroys her mind, and (as is later revealed) the god Pan conceives a daughter with her. This daughter, Helen, turns out to be an incarnate devil, driving men who attend her orgies to suicide. The monster's death at the end of the story reveals her to be an eldritch monstrosity.

According to Punter, Machen's writings are some of the most decadent works of English literature. Punter describes one aspect of this decadence in *The Great God Pan* as "a story which takes seriously the opposite of Darwinian evolution, the hypothesis that a primitive capacity for evil and horror survives in us all, and can, under the right circumstances, drive us to commit the most dreadful of deeds." (Punter 146). This is similar to the theme of Darwinian horror seen in *Jekyll and Hyde*, but whereas in that novel that primitive element comes from within humanity, in this novel primitivism and evil is shown to arise from an undefinable place outside of humanity and nature itself, tying it to its proto-Lovecraftian themes.

The Great God Pan is a forerunner of Lovecraftian horror stories, building the underlying components of these cosmic horror stories. One of these is the notion of a realm beyond our normal perception. Following the allegory of Plato's cave, Machen constructs a counterpart to

Plato's intelligible realm, an unintelligible realm that embodies the abject, things and beings that defy objective description in language or symbolism. This unintelligible realm ties into new discoveries in biology, unsettling the notion of humankind as central to and set apart from nature. Lastly, Machen displaces the spiritual world from Plato's intelligible realm to the unintelligible, and demonstrates the threat of humanity connecting and merging with a being from such a realm, resulting in a monstrous being that threatens the sanity of humankind.

The Great God Pan also explores the nature of the language barrier between human and animal, and the evolution and degeneration of language itself. Navarette explores Müller's theory on the degenerative nature of language and the impassable nature of the language barrier. *The Island of Dr Moreau* and *The Time Machine* provide an exploration of the implications of the crossing of this barrier, and the consequences this has for human identity. *Moreau* and *Pan* also explore the degenerative nature of language as set forth by Müller and Huysmans. Lastly, several inscriptions in *Pan* provide insights into the degenerative nature of language and its relation to the monster, Helen.

Reaching beyond Plato's cave

The central theme in *The Great God Pan* is the idea that behind everyday reality lies another, wider reaching reality. Dr Raymond describes his vision of this widening of the perception of reality as follows:

Suppose that an electrician of today were suddenly to perceive that he and his friends have merely been playing with pebbles and mistaking them for the foundations of the world; suppose that such a man saw uttermost space lay open before the current, the words of men flash forth to the sun and beyond the sun into the systems beyond, and the voices of articulate-speaking men echo in the waste void that bounds our thought. . . . [I] saw before me the unutterable, the unthinkable gulf that yawns profound between two worlds, the world of matter and the world of spirit; I saw the great empty deep stretch before me, and in that instant a bridge of light leapt from the earth to the unknown shore . . . [the surgical procedure] will level utterly the solid wall of sense, and probably, for the first time since man was made, a spirit will gaze on a spirit world. (Machen 6-7)

The central idea of Raymond's proposition is that neuroscience can bridge the gap between the physical and spiritual realm, and that this will possibly lead to greater spiritual insights. The idea of a higher reality outside humanity's normal perception shares similarities with Plato's allegory of the cave.

In his allegory, Plato describes a cave where people are fettered facing a wall, and their only experience of the world outside the cave is from shadows cast on the wall of the cave by objects moving before a fire behind them. The prisoners in this cave, being able only to see shadows and hear echoes of the real world, perceive these shadows and echoes to be reality (Plato 1132-1133). Plato then describes the confusion experienced by a prisoner released from the cave, who can suddenly perceive these real objects, but still perceives the shadows of these objects to be more real than the reality outside the cave. Plato posits that this freed man would need time to adjust, and would at first be blinded and overwhelmed by the experience of reality outside of his previous worldview (Plato 1133-1134). Plato then extrapolates this allegory to the real world, describing the journey out of the cave as "the upward journey of the soul to the intelligible realm" (Plato 1135), the intelligible realm being that which can be comprehended by the human mind, as opposed to that which can be perceived by the senses. The intelligible realm can contain concepts outside of the realm of sensory perception, and Plato links this to the spiritual realm. *The Great God Pan* makes use of this concept of an intelligible realm outside of the perceptible, and expands this idea to a realm beyond the comprehension of the human mind, the unintelligible realm.

The unintelligible realm acts as a counterpart to the intelligible realm in several ways, by its description of objects and of light. The narrator, during the destruction of Helen, notes how the light of the regular world is changed in the presence of Helen, a creature acting as a connection to this unintelligible realm:

The light . . . had turned to blackness, not the darkness of night, in which objects are seen dimly, for I could see clearly and without difficulty. But it was the negation of light; objects were presented to my eyes . . . without any medium, in such a manner that if there had been a prism in the room I should have seen no colours represented in it. (Machen 70)

This 'negation of light' seems to be an inversion of the Platonic light, which reveals "the form of the good . . . [which] is the cause of all that is good and beautiful in anything, [and] produces

both light and its source in the visible realm, and that in the intelligible realm it controls truth and understanding” (Plato 1135). The inverse of this light must then reveal, if not evil, at least the chaotic, abject nature underlying and surrounding reality: where Plato’s light reveals the higher, truer, more objective forms of things observable in reality by the human mind, this anti-light reveals the abject nature of a world that stretches beyond humanity’s limited realm of understanding and perception.

Clarke, Raymond’s assistant, gets a glimpse of the unintelligible realm, and its abject nature, in a hallucination, and describes standing face to face with:

a presence, that was neither man nor beast, neither living nor dead, but all things mingled, the form of all things but devoid of all form. And in that moment, the sacrament of body and soul was dissolved, and a voice seemed to cry ‘Let us go hence,’ and then the darkness of darkness beyond the stars, the darkness of everlasting.” (Machen 11)

Here is a first reference to the anti-light discussed above. The description of this being (assumed to be Pan) invokes the sense of the abject, the sense of the indescribable, form devoid of form. The experiment Dr Raymond performs causes his patient to go insane from the experience of fully seeing this unintelligible, abject being. Mary’s encounter with Pan is described as being accompanied by both wonder and terror (Machen 12-13), reflecting the feelings of attraction and repulsion to the abject being described by Clarke earlier.

This depiction of an ancient God outside of human comprehension, an unintelligible being, is reminiscent of Lovecraftian horror. In his essay, “ ‘Comrades in Tentacles’: H.P. Lovecraft and China Miéville,” Colebrook notes the influence Machen had on the creation of Lovecraftian horror, in which ancient Elder (or eldritch) Gods are invoked from beyond the cosmos (Colebrook 212-213). Eldritch is defined by Hall as an otherworldly, or uncanny, being (Hall 16). The story does not explicitly give the nature of Pan, but Clarke seems to believe he is Satanic in nature, naming his manuscript “Memoirs to prove the Existence of the Devil” (Machen 15), and concluding with “ET DIABOLUS INCARNATUS EST. ET HOMO FACTUS EST.” (Machen 23). The notes translate the latter as “And the devil was made flesh. And man was made”, referring to John 1.14: “And the Word was made flesh, and dwelt among us” (Machen 180). The birth of Helen by the virginal Mary also refers to the birth of Jesus, suggesting an antichrist figure.

The imagery used at the end of the story suggests something far more alien, describing something which defies description, but is characterised by its lack of definiteness, shifting between animal and human forms (Machen 69-70). Hurley notes that Pan is “a ‘presence’ impinging upon human realities, but not explicable within human symbolic systems. Though embodied, this ‘god’ exists at the juncture of various bodily identities” (Hurley, *The Gothic Body* 13). As Hurley notes, descriptions of Helen’s true form resists language and becomes unintelligible, very literal in the text in the form of blotted out text or interrupted readings. Hurley notes that these interruptions and moments of inexpressibility respond to “the traumatic and intolerable prospect of the loss of human specificity by becoming hysterical . . . [marking] its own inability to frame abhumanness within the available language.” (Hurley, *The Gothic Body* 48). This hysteria, together with the fear of degeneration engendered by Pan and Helen, fit Nordau’s definition of decadence, a paralyzing fear that science will uncover horrors beyond description or comprehension, and unleash them on human nature, corrupting it, paving the way for the eldritch horrors seen in Lovecraftian writings.

Evolutionary horrors, mad science, and eldritch abominations

As noted in the previous section, The Great God Pan can be linked to Lovecraftian horror, in particular the nature of gods/supernatural beings and their relation to humanity. According to Navarette, the scene where Helen dies and reveals her underlying nature as abject monster “[embodies] a reverse ontogeny: an accelerated retrogression to what Lovecraft described as ‘the most primal manifestations of the life-principle,’ what Machen himself would later call ‘Protoplasmic Reversion’.” (Navarette 190). Navarette calls the protoplasm that Helen eventually reduces to: “*the* sublimely abject substance – indefinite, unstable, amorphous – and thus betrays its origins, for Helen’s father is described as a similarly abject figure” (Navarette 190). Navarette links this ‘protoplasmic reversion’ to fears engendered by the discovery of protoplasm, the contents of cells common to all living things, plant or animal. This discovery carried the implication that the classification of species in groupings of plants and animals, and the

placement of humanity therein, was essentially “ ‘a matter of convention’ “ (qtd in Navarette 190). This suggests that the degeneration of Helen combines the Darwinian horror of de-evolution and the fears of the primal nature underlying humanity with the fear of the abjection of nature, where nature itself becomes indeterminate, predicated on arbitrary, human-defined boundaries instead of cosmic laws. The different stages through which Helen’s body degenerates reflect the displacement of humanity from the centre of nature, as well as the loss of its status as independent and placed above nature. Rather than divine creation, humanity is a product and part of nature.

Lovatt links the scientist in this story, Dr Raymond, to the eponymous doctor from *The Island of Dr Moreau* as another example of the stock mad scientist of the fin de siècle performing unregulated experiments on humans to explore the relation between body and mind (Lovatt 22). This archetype of the mad scientist, Lovatt notes, emerged alongside debates about the ethics of animal vivisection (Lovatt 22). While the subject of vivisection is much more obvious for Moreau, neurosurgery can be argued to be a form of vivisection, with its attendant lack of concern for the suffering caused by such experimentation. Lovatt argues that Raymond’s surgery, which makes the body available for transcendental experience, also frees the body from Victorian moral and social constraints in order to enable a spiritual revolution (Lovatt 23). Another aspect of vivisection which sparked social unrest was the discovery that living creatures could be made to act by the application of electricity, suggesting the possibility that electricity could replace a creature’s will, and by inference, that the human will and consciousness were not sacred (Lovatt 24). This ties into Navarette’s fear of the abjection of nature: not only the human form is in danger, but free will and consciousness, in other words, humanity’s agency as an independent creature.

The central theme of this scientific experimentation is humanity’s connection to the spiritual world, and Machen explores the implications of a world where the human body and mind are no longer the centre of the universe and the height of (earthly) creation, with a free will guaranteed by divine will. In the previous section, I have already shown how the allegory of Plato’s cave is reused in the story to posit an unintelligible realm, as opposed to Plato’s intelligible realm, beyond the comprehension of the scientifically dethroned human subject. Combining the exploration of the spiritual world by the scientist with this unintelligible realm,

Machen displaces the gods, who could traditionally be understood through symbols, imagery, and language accessible to humanity, into this new realm. Placed into this unintelligible realm, these gods can no longer be represented through sensory observations or linguistic symbols.

The degeneration of language

One last theme that factors into Gothic horror, and also plays a role in other novels discussed elsewhere, is that of the breakdown of the language barrier between animal and human. *Dracula* certainly assigns great importance to the power of language (as seen in the Count's desire to develop his newly acquired English language skills to perfection to aid his invasion, and in the role of spoken and written language in recording the story). However, *The Great God Pan* and *The Island of Dr Moreau* also suggest a deeper connection of language to themes of evolution and the nature of humanity. In *The Shape of Fear*, Navarette discusses Max Müller's views on language: "Language . . . [is] *our Rubicon which no brute will dare to cross*" (qtd. in Navarette 185). Müller concedes that Darwin was right about the evolution of man, but rejects the notion that language is based in materiality, that it, too, had evolved from the animal sounds of humanity's ancestors (Navarette 185). Navarette notes that "Müller fixed on language as the *differencia specifica* that would preserve humanity from the progressive desacralization of an encroaching positivism" (Navarette 185). Müller further suggested a higher power is responsible for the development of language, "a divine gift [which has] its place in 'the general beauty and harmony of nature,' in the midst of which the 'eye of man' might discern 'the eye of God beaming out from the midst of all His works'" (Navarette 185). For Müller, language served as "the embodiment ('the outward sign') of an ideality ('that inward faculty'). 'The word is the thought incarnate' – the thought made flesh – and it was not to be expected that we could 'understand the real nature of the human Self' until we understood 'the real nature of language'" (Navarette 186). Navarette further notes Müller's theory on language change as being a disease of language, arguing that his views "paved the way for literary and fictional treatments of language as subject both to sickness and to what Huysmans termed 'a slow and partial decay' that eventually gives way to a purulent deliquescence." (Navarette 187). This degeneration of

language is, as Navarette points out, an integral part of the narrative structure of *The Great God Pan*:

Linguistically exhausted, structurally degenerative, the story itself suffers from an abjection that reveals its atavistic character. The integrity of the narrative structure dissolves . . . the various episodes appear to be randomly ordered, and . . . the reader must struggle to discern the reticulated network of associations that bind them into a coherent whole. Displaying a polyphony precisely analogous to the polymorphousness of the material bodies whose actions and reactions they recount, the various narrative voices behave, not cacophonously . . . but rather as independent but interpenetrating fragments, each providing points and counterpoints within the larger movement that contains (even as it is defined by) them. (Navarette 190-191)

Because objective description is dependent on language, the rejection of that language as capable of describing Helen and her actions constitute an abjectifying of her monstrosity, placing her once again in the realm of the unintelligible.

This Huysmansian decay of language is also represented in *The Great God Pan* by the Latin inscription found at one of the sites of Helen's monstrous appearances. The inscription is only partly legible, and, as Navarette notes, "[t]he full implication of the Latin words is being ineductably lost as the letters fall away from the bodies of the words, leaving behind fragments that admit of translation, but resist interpretation or contextualization." (Navarette 192). This loss of meaning in the inscription mirrors the loss of meaning of the fractured and fragmentary narrative, which allow some amount of interpretation, but cannot be fully interpreted for lack of context and lack of objective description. Thus, the Latin inscription works to reinforce the abjection of the narrative itself. By rendering the inscription as well as the narrative literally unintelligible, not only the physical nature, but the very language of its description is pushed beyond the realm of human knowledge. Another example of the use of language as a marker of degeneration and abjection is the phrase written by Clarke upon seeing the being accompanying Rachel: "ET DIABOLUS INCARNATUS EST. ET HOMO FACTUS EST." (Machen 23). This is a reference to the Nicene creed about the incarnation of Christ, translated as 'and the devil was made incarnate and was made man.' When compared with the nature of Jesus as the Word made incarnate ("In the beginning was the Word, and the Word was with God, and the Word was God .

. . . All things came into being through him . . . And the Word became flesh and lived among us” (*New Revised Standard Version*, John 1.1, 1.3, 1.14)), Clarke’s reference seems to imply that Helen is the Devil made flesh, and an incarnation of corrupted language. Thus, the decay of language is not only visible in the narrative, but also in its Biblical reference to Helen’s creation.

Conclusion

The Great God Pan explores the nature of human reality and knowledge, the dissolving boundary between humanity and the animal world, the breaching of the language barrier between man and animal, and the evolution and degeneration of language. The breach of the barrier between the human world and an external, supernatural reality forms the central theme of the novel. This breach is accomplished through the unethical, unsupervised application of science, which results in the connection within one woman’s mind between the physical and the spiritual realm, where she comes in contact with the titular god, Pan. This results in the birth of another woman, Helen, who combines the human form with the abhuman spiritual being. The idea of a higher spiritual world outside of ordinary human perception can be connected to Plato’s cave, which describes the spiritual realm as the intelligible realm, the realm of light, contrasting with the darkness of humanity’s cave. This intelligible realm represents Plato’s Idea-world, where the ideal forms of objects and concepts reside, whose representations in the real world are mere shadows. *The Great God Pan*, through its abhuman monster, posits the existence of a logical extension of the intelligible realm. Whereas the intelligible realm represents all that can be contained and understood by the human mind, and is represented by the light of reason, this other, unintelligible realm falls outside the understanding of human reason, and is represented by a darkness that forms the negation of that light. This realm of the unintelligible represents the world of the abject, of that which cannot be conceived or perceived by the human mind. Pan forms a representation of that abhuman realm beyond human understanding, engendering both wonder and terror in those who manage to perceive him directly. The perception of the abject inside the unintelligible realm is reflected in the notion of Lovecraftian horror, which focusses on the eldritch, or uncanny being interacting with humanity and driving it mad through its innate incomprehensibility. The decadent hysteria, which expresses itself in a paralyzing fear of science uncovering horrors

beyond human understanding, capable of corrupting human nature, paves the way for later Lovecraftian horror.

This Lovecraftian horror of abjection also ties into Helen's biologically unstable, protoplasmic nature. The protoplasm is seen as the most primal manifestation of life, and the reversion of Helen into this primal state symbolizes the dissolving barrier between human and animal, and between humanity and nature. Helen's degeneration combines Darwinian horror of de-evolution and fears of primal instincts within humanity with the fear of an abject, inherently incomprehensible natural world. Helen's physical degeneration symbolizes humanity's displacement as divine creation, becoming a product and part of that abject natural world.

Another theme found in this novel as well as *The Island of Dr Moreau* is that of unethical and unregulated scientific experimentation. Moreau's medical experimentation is closely linked to the Victorian debate on vivisection and animal cruelty. Dr Raymond similarly performs unethical neurosurgery on humans, justifying the breach of Victorian constraints with the prospect of transcendental enlightenment and spiritual revolution. A related issue surrounding vivisection is the discovery of the ability of electrical impulses to influence the actions of living creatures, implicitly undermining the sacred nature of human free will (see for example the frog experiments of Galvani and the neuron doctrine as pioneered by Cajal and Waldeyer Hartz). This can also be linked to the effects of hypnosis on free will, which also works to undermine free will and human agency. Thus, the abjection of nature not only threatens the physical condition of humanity, but also its mental freedom and human agency. Finally, *The Great God Pan's* exploration of metaphysical abjection symbolizes the destabilizing effect of science on humanity's spiritual place in the universe. No longer at the centre of a greater intelligible realm which humans can access with the accumulation of knowledge, humanity is now faced with an eternal void of unintelligible abjection, permanently locked out of the greater part of knowledge that is now beyond human understanding. On a theological level, gods are similarly displaced from human understanding, and can no longer be properly represented by sensory observations or symbolic language.

The incapability of language to provide symbolic structures to describe a newly abjectified reality is emblematic of the degeneration of language seen in the narrative structure of *The Great God Pan*. Müller's theories on the insurmountable nature of the language barrier

between animals and humanity, the divine origin of human language, and the disease and degeneration of language itself play a large role in the narratives of *Pan* and *The Island of Dr Moreau*. In *Pan*, the narrative itself is diseased and degenerative, the language incapable of properly describing the abject horror it hints at. This failure of objective description intensifies the abjectivity of the monster. *The Island of Dr Moreau* similarly explores the degeneracy of language in Moreau's creatures, demonstrating that language has not a divine but biological origin, and that it, like the human form, is subject to the powers of entropy. Similarly, *The Time Machine* demonstrates the degeneracy of human language under the power of entropy. The decay of language in *Pan* can also be seen more directly in the use of a Latin inscription, which is only partly legible and without context, demonstrating the degenerate, decaying nature of Latin as a dead language. Lastly, Clarke's Biblical description of Helen as the devil made incarnate links the creation of Helen to the Biblical creationary power of the Word of God, corrupted into creating a demon rather than a saviour. Some of the elements found in this chapter, especially on degeneration and unethical science, will be discussed further in chapter four.

3. Dracula

I long to go through the crowded streets of your mighty London, to be in the midst of the whirl and rush of humanity, to share its life, its change, its death, and all that makes it what it is.

- Bram Stoker, *Dracula*

Bram Stoker's *Dracula* is, according to Punter, "one of the most potent of all literary myths", and the prototype of the modern archetype of the vampire. *Dracula* is the story of the eponymous vampire traveling to England with the aid of Jonathan Harker in order to invade England in search of fresh, unwary victims. One of his first victims is Lucy, who turns into a vampire as well. Three of Lucy's suitors, Arthur, Dr Seward, and Quincy Morris, call in the aid of Dr van Helsing to solve Lucy's mysterious illness, setting them on the trail of Dracula and killing the vampiric Lucy. When Dracula attacks Jonathan's wife, Mina, the group sets out to drive Dracula from England and destroy him once and for all.

While vampires have a long history in European folklore, Bram Stoker's version of the vampire does much to modernize this mythology, setting the story firmly in the present day, particularly through its references to cutting edge technologies of the time, and setting the story in the heart of the British Empire. The timing of this story also connects it to the fin de siècle, to which the vampire seems particularly suited: an abhuman creature, not quite human, who acts like a predator with human intellect (the story makes much of Dracula's control of wolves, much more than the connection with the iconic bat), and who poses an external threat to civilization, a threat of degeneration and of invasion, invoking the very fear of decline of Empire engendered in fin de siècle malaise. Another aspect of *Dracula* is its attempt to provide scientific backing to this traditionally supernatural monster, connecting scientific explanations of degeneration to the spiritual notion of a threat to the soul.

The abhuman, degeneration, and the undead

Punter points out Dracula's nature as abhuman creature, as well as the influence he has on the behaviour of others:

Dracula is associated with the disruption and transgression of accepted limits and boundaries. As shapeshifter he resists any stable, fixed identity; as 'undead' he seemingly straddles that ultimate boundary between life and death. . . . His presence is felt . . . primarily as a troubling presence in the mind. . . . His significance ultimately lies not so much in the way he embodies transgression as in the way he functions as the catalyst for transgression in others: he prompts the release of energies and desires normally repressed in the interest of both social and psychic stability. (Punter 231)

While shapeshifting is also seen in *Jekyll and Hyde*, *The Great God Pan*, and *The Beetle*, *Dracula* makes the most varied use of this shapeshifting ability. Dracula is capable of transforming into animals, most notably wolves and bats, changing his human appearance (particularly his age), and turning incorporeal as fog. This makes Dracula one of the most abhuman figures described in this thesis, since his appearance, even as a human, is never quite stable. As an undead being, Dracula also incorporates the abject repulsion of the corpse, and the uncanny experience of the walking corpse. However, unlike more traditional vampires, Stoker downplays the living corpse aspect of his vampire, instead opting for tubercular paleness and striking complexion, especially in his female vampires. Dracula also has considerable power over the minds of others, especially of his victims. This comes in the form of direct hypnosis, but also as a presence felt by certain characters (like Renfield) sensitive to his closeness. This psychic power over his victims gives Dracula another aspect of abjection: an ability to engender fascination despite his victim's repulsion, as is seen in the scene where Dracula forces Mina to drink of his blood, or when Jonathan is attacked by the three vampire women. The revealing of taboos by the abject vampire can be seen most strongly in Lucy, in whom Dracula unleashes "a barely repressed sensuality as she turns into a voluptuous wanton 'nightmare of Lucy'." (Punter 232).

Darwin's theory of evolution plays an important role in *Dracula*, informing its themes of abhuman monstrosity and degeneration. In *The Evolutionary Imagination*, John Glendening

argues that the novel “confronts threatening disorder, but . . . works to overpower degeneration with progress.” (Glendenning 107). Glendenning lists five intertwined narratives “mingling biological, psychological, and social forms of d/evolution” (Glendenning 109):

- (1) Harker’s journey, carefully delineated through several devolutionary frames of reference;
- (2) the growing potency of Dracula’s savagery as he threatens modern civilization, an ‘evolutionary’ process that mixes Darwinian and Lamarckian qualities;
- (3) Dracula’s modernization or progress, analogous to his mental evolution, in acquiring the West’s own technological and organizational capabilities;
- (4) the heroes’ recovery and marshalling of those competencies in their struggle against Dracula;
- (5) the degeneration of Western civilization implied in the heroes’ methods and in the weaknesses revealed by its susceptibility to Dracula’s assault. (Glendenning 109)

The first narrative, that of Jonathan’s journey, provides a devolutionary frame of reference by showing the progressive backwardness of the population of Eastern Europe, especially in terms of their relation to religion and the occult (on which more in the next section), as well as the degenerative aspects of Dracula himself. Harker’s description invokes the devolutionary, bestial aspects of degeneracy, as well as the traditional description of the vampire/werewolf in folklore:

His eyebrows were very massive, almost meeting over the nose . . . the mouth . . . was fixed and rather cruel-looking, with peculiarly sharp white teeth; these protruded over the lips . . . his ears were pale and at the tops extremely pointed . . . the backs of his hands . . . were rather coarse – broad, with squat fingers. Strange to say, there were hairs in the centre of the palms. The nails were long and fine, and cut to a sharp point. (Stoker 44-47)

Mina later links these degenerative features to the criminal type as defined by Lombroso. Glendenning’s third, fourth and fifth narrative can be linked together in a broader invasion-narrative, which will be discussed in the last part of this chapter.

Glendenning’s second narrative suggests a connection between Dracula and the theories of Darwinian and Lamarckian evolution. This connection revolves around the differing ways in which Lamarck and Darwin claim traits are passed on from one generation to the next. According to Glendenning, Lamarck’s theory of evolution states that:

species evolve because individuals, in striving to meet their needs in response to changing environments, produce inheritable modifications to relevant features; over generations volition continues to compound these changes, improving the effectiveness of adaptations. (Glendening 47)

Darwin argues that “species have been modified, during a long course of descent, by the preservation or the natural selection of many successive slight favourable variations.” (Darwin, *On the Origin of Species* 417). However, Darwin refutes Lamarck’s conception of what traits are passed on, stating that “no amount of exercise, or habit, or volition, in the utterly sterile members of a community [of ants] could possibly have affected the structure or instincts of the fertile members, which alone leave descendants.” (Darwin, *On the Origin of Species* 215). As Glendening notes, “Darwin . . . does not embrace the Lamarckian implication that mind, through volition and the making of intelligent choices, drives evolution – that life possesses this mental, virtually inherent tendency towards progress.” (Glendening 47). In short, Darwinian evolution is driven by natural forces outside of the individual will, whilst Lamarckian evolution is driven by changes accumulated by the individual and passed on by a conscious act of the individual will. Glendening’s combining of these features in *Dracula* can be seen in the creation and propagation of vampirism. Van Helsing speculates that, while Dracula began life as human, he gains the trait of vampirism through geological and chemical processes, which suggests (symbolic) Darwinian evolution through natural processes outside of the individual will. However, the story also strongly suggests a demonic, spiritual influence in the creation of vampirism. This aspect seems to be Lamarckian in nature: the trait of vampirism is acquired (willingly or as punishment) through an individual’s interactions with the occult. The creation of new vampires seems to also be both Darwinian and Lamarckian. On the one hand, certain traits (such as sharp teeth and nocturnal living) are directly carried over to the next generation without apparent input from the originator. On the other hand, the original vampire seems to have a conscious influence on some of the traits of vampirism that are passed on, creating subclasses of vampires which are (as far as we can tell from the book) full and relatively independent vampires and partial vampires more directly under the originator’s control. This also suggests the ‘evolving’ nature of the vampire’s threat to civilization, as a ‘species’ that can consciously adapt itself to new situations by adapting the traits of its offspring. While not explicitly present in the novel, note that Mina, while gaining

many of the 'favourable' features of vampirism, does not seem to gain some of its very restrictive features, such as the inability to cross running water. This seems to suggest that, when unchecked, vampires could consciously evolve into a species better adapted to its environment.

Science, religion, and the occult

Dracula contains a peculiar mixture of the methodology of the scientist, the powers of religion (in particular, Catholicism), and the superstitions and borderline magical features of the occult. The science in the novel is mainly provided by Mina and van Helsing. Mina is the one who, through the use of (then scientifically current) phrenology, identifies Dracula as a criminal type and uses this to predict his next movements, and also is the one who carefully documents and records the story, which is done using various cutting-edge technologies such as the phonograph and the typewriter. Van Helsing forms a mix of the three fields of science, religion, and occultism: his knowledge of medical science allows him to perform blood transfusions, but his analysis of Dracula, and vampirism in general, hinges on folkloric knowledge of vampires and the methods of defeating them. This folklore also ties into Christian symbolism, such as the cross, and of religious notions of the soul and demonic possession.

One interesting subject of psychology that ties in with the theme of loss of control over the mind and body is hypnosis. Hypnosis plays an important part in *Dracula*, as well as *The Beetle*. In her article, Athena Vrettos briefly discusses the history of mesmerism (or animal magnetism, a natural force possessed by all living beings) and hypnotism (a product of the imagination, creating a voluntary suspension of the will), and notes that in *Dracula*:

mesmeric power is associated with male sexual authority and demonic force of will . . . indeed, we can see the changing history and cultural associations of mesmerism and hypnotism re-enacted . . . Dracula's single-handed ability to overpower the will of others, his quite literal 'animal magnetism' in commanding the animal world and transforming himself into bats and wolves, . . . the swirling confusion [his eyes] produce in his subjects, all invoke the theoretical displays of popular mesmeric practitioners . . . Conversely, Dr. van Helsing's . . . hypnosis [of] one of Dracula's female victims, her participation as a voluntary subject, and his emphasis on the power of the unconscious mind in combating

forces beyond human understanding, emphasize . . . popular associations of medical hypnotism (Vrettos 79-80)

Vrettos argues that Dr van Helsing works to reframe the dangerous natural force of mesmerism, which threatens the stability of Victorian society, into a personal doctor-patient relationship, where the doctor, as scientist, is in full control (Vrettos 80). While this taming by science of the powers of hypnosis can be seen as a theme in *Dracula*, the novel can also be seen to undermine this scientific effort, as van Helsing is only able to overcome Dracula's animal magnetism at a distance: clearly, the scientific method of hypnotism is no match for Dracula's more primal force of mesmerism in a more direct confrontation. This also fits in with Glendening's discussion of Dracula's destabilizing influence on Western civilization and science (which will be discussed further in the next section).

Similar to *Dracula*, hypnotism plays a central role to the threatening nature of the monster in *The Beetle*. Following Vrettos' definitions of mesmerism (or animal magnetism) and hypnotism (Vrettos 78-79), it is clear that the Beetle's powers are consistent with that of mesmerism, a power intrinsic to the Beetle, similar to the form of mesmerism seen in *Dracula*. Like *Dracula*, the Beetle's eyes and their gaze are a central marker of their abject nature. *Dracula*'s eyes are described as "red, gleaming" and having a "blaze of basilisk horror [which] seemed to paralyze" (Stoker 158, 99). *Dracula*'s eyes are distinctly unnatural-looking, a form of the evil eye, the malevolent glare that curses the receiver. Notable in the context of animal magnetism is that the powers of the Beetle's eyes are suggested to derive from the physiological structure of the optical nerve, suggesting a power intrinsic to the body as opposed to the psychological underpinnings of hypnosis. The idea of animal magnetism is further reinforced by Atherton's sensation of the "baleful something which seemed to be passing from his eyes to mine" (Marsh 122), suggestive of the "powerful magnetic fluid" underlying mesmerism (Vrettos 78).

Vrettos also connects mesmerism with disparities in social and sexual power, pointing out the similarities of *Dracula*'s mesmeric powers to that of real-world counterparts:

mesmeric power is associated with male sexual authority and demonic force of will . . .
Dracula's single-handed ability to overpower the will of others, his quite literal 'animal magnetism' in commanding the animal world and transforming himself into bats and

wolves, his mysteriously piercing eyes and the swirling confusion they produce in his subjects, all invoke the theatrical displays of popular mesmeric practitioners. (Vrettos 79) Dracula's animal magnetism, in particular his ability to overpower the will of his victims and his ability to transform into animals, are paralleled in the Beetle, who holds similar sway over his victims, and is able to communicate to them over long distances through this mesmeric link (compare Dracula's connection to Mina with the Beetle's connection to Holt). As Vrettos points out, Dracula's mesmerism contains a disparity of class, and particularly of gender: his victims are mostly female, or, when male, of a lower social class than himself. Also, like Dracula, the Beetle is capable of shape shifting into an animal form, though in *The Beetle* it is limited to one animal species closely connected to the cult's country of origin (a beetle or scarab), and is not as restrictive as in the case of Dracula, for whom transformations are bound to strict, supernaturally imposed rules.

In "Science and the Gothic," Kelly Hurley discusses the "sensational debate" (Hurley, "Science and the Gothic" 171) about hypnotism, in which the definition of hypnotism, its proper usage, and especially its dangers were debated. Hurley notes that Victorian Gothic authors used hypnotism in three ways: "as a weird supernatural force, as a scientifically explicable process that was nonetheless uncanny in its working and effects, or as a quasi-occult phenomenon that troubled the distinction between science and supernaturalism." (Hurley, "Science and the Gothic" 171-172). Hurley links these strategies to fin de siècle Gothic, which "consistently attempted to figure monstrosity within scientific terms" (Hurley, "Science and the Gothic" 172). *Dracula* follows both the supernatural and scientific use of hypnotism through the characters of Dracula and van Helsing, respectively. In contrast, *The Beetle* primarily follows the idea of animal magnetism, as shown before, and can thus be argued to follow the quasi-occult model of Gothic usage: the Beetle's hypnotic powers are clearly linked to the Children of Isis and its supernatural creatures, but also follows the (then) scientific model of animal magnetism, mentioning forces and the passing of energies between the eyes.

Hurley further discusses how the power of the hypnotic eye, like that of the Beetle or Dracula, "drain[s] [the victim] of subjectivity . . . [the victim] become[s] 'spectralized' [Luckhurst, *The Invention of Telepathy* 213], rendered uncanny to themselves and the reader" (Hurley, "Science and the Gothic" 172). The removal of free will from the victim means they can

no longer act as a subject, but are forced to observe themselves as object. This objectification of the self, combined with compelled actions against normal free will, creates a sense of abjection: as noted by Kristeva, the abject is mainly defined by “being opposed to *I*.” (Kristeva 1). The criminal nature of Holt’s enforced actions reinforces the sense of abjection, as Kristeva notes that abjection is caused by that which “disturbs identity, system, order. What does not respect borders, positions, rules” (Kristeva 4). This abjection is especially powerful because it involves the identity of the self. In Kristeva’s definition, the ego becomes opposed to itself, and is subsequently expelled. The sense of uncanniness is then caused by the experience of that which should be intrinsically familiar (namely, the self) becoming unfamiliar and detached from the individual consciousness. This also suggests an interesting interpretation of *Jekyll and Hyde*, where part of the self is (in this case, voluntarily) expelled as the character Hyde, who acts outside of the will of Jekyll, who is reduced to the status of observer when Hyde is in control. However, where in *Jekyll and Hyde* the deviant self is split off from the whole without further addition from without, with mesmerism part of the self is removed by the hypnotist (“something was going from me – the capacity, as it were, to be myself” (Marsh 20)) and replaced with the will of the hypnotist. The replacing of the will can also be seen in *Dracula*, where Jonathan and Mina remark on feeling a wish to obey the vampire brides and Dracula, respectively.

In a broader sense, *Dracula* explores the theme of loss of control of science and of Western civilization over the forces of nature. In his essay, Peter Kitson summarizes how Jonathan’s travels into the East take him out of the modern Victorian scientific world, and into a place where

all the values of Victorian reason break down, weird things happen, phantasmic blue lights appear, people seem to be transparent, mirrors cast no reflection, and [where] Harker enters a world of the irrational where dreaming and reality merge into each other and where the normal routines of everyday are reversed. (Kitson 171)

This is where the neatly ordered scientific world of the Victorians ends and is exchanged for that of the supernatural and the mythical, and where Christianity is still very much intertwined with superstitions and the occult that have their roots in Medieval Eastern European times, similar to the ancient *Dracula*. This routine mixing of the occult with Christianity can be seen by the various villagers who Jonathan meets, who employ Christian symbols and rituals mixed in with

occult rituals and superstitions. Most prominent among these are the use of the cross and of garlic as wards against vampires, the first invoking Christianity directly, the latter deriving its power from the occult. The vampire is also a creature straddling the worlds of Christianity and the occult, possessing a soul which is capable of entering hell or heaven, but also implied to be possessed by demonic forces. Faced with such a supernatural enemy, van Helsing is forced to employ the occult, outlawed side of Christian folklore, becoming a vampire hunter, and effectively also becoming an exorcist for the demons possessing the vampires. This destabilizes the notion of a stable, controlled Christianity, free of occultism and demonic possessions, and raises questions about insanity and free will at a time when psychiatric science attempts to explain such things in rational, non-religious ways.

In *The Gothic Body*, Kelly Hurley argues that *Dracula* works to blur the boundaries between science and the occult, and to demonstrate this to the reader. Hurley points to the scene where van Helsing explains to Seward that science works to understand those things that would in an earlier age be deemed occult, such as electricity or hypnotism, claiming that vampirism could similarly be explained someday by science. Hurley notes that *Dracula* is an occult, demonic creature, but simultaneously also classifiable as criminal under Lombroso's theories, and that hypnotism is used both as animal magnetism and as psychological treatment (Hurley, *The Gothic Body* 19-20). These two binaries, the vampire as abhuman monster and scientifically defined criminal, and hypnotism as occult force and psychological tool, form an important part of the novel's theme of invasion of the occult and the struggle of science to contain this threat. However, while the heroes have defeated *Dracula*, they have not undone the threat of vampirism itself; van Helsing hints at the possible sources of vampirism, including geological and chemical causes, which implies the threat could arise again.

Threatened Empire

Punter calls *Dracula* “[an enactment of] late Victorian society’s most important and persistent narrative of decline: the narrative of reverse colonization, the fear of a racial degeneration which would corrupt and destabilize identity.” (Punter 232). *Dracula* makes his colonist aspirations quite clear, having extensively studied English culture, carefully planning his invasion (with the

text emphasizing his military credentials for doing so), and enlisting Jonathan to ensure his English is impeccable so as not to stand out as foreigner.

In his book, Glendening explores how Victorian England is threatened by Dracula, not just on a personal level, but as a modern Western civilization. Glendening characterizes Jonathan Harker's journey from the modern West to the archaic East as "[establishing temporal and spatial, historical and geographical oppositions that orient and reinforce this primal battle throughout the novel." (Glendening 108). This dualistic thinking of moral absolutes (with England's modernity opposing Transylvanian primitiveness) is reinforced and implicitly destabilized by 'evolutionary time':

a sense of history that consigns cultures to different stages on a time-line of progress . . .

In this scheme, modernity represents the fulfilment of history, while ideas of modern and primitive become naturalized by being transformed from relativistic and unstable categories into fixed oppositions . . . justifying racism and imperialism. For this reason, primitivism appears unnatural and evil when it not only resists but threatens the idea of Western supremacy as underwritten by progressivistic evolutionary thinking. (Glendening 108)

Glendening argues that Dracula embodies this primitive past, representing a "savagery and bestiality that cultural and physical evolution supposedly had banished to the distant past", and notes that the novel "manifests this fear that this past might rise from the graveyard of history to overturn socioeconomic accomplishments and future progress." (Glendening 108). Glendening characterizes Dracula as a "shadow of modernity", challenging Western standards of modernity and undermining moral categories by revealing their historical contingency, "[overturning] the idea of progress, exposing its relativistic and unstable underpinnings." (Glendening 108). This contingency of history can be seen when comparing the historical events described by Dracula to England's own history, which was similarly filled with wars and invasions (not least of which the Anglo-Saxons themselves, displacing the remnants of the Roman Empire), and serve to undermine the sense of an evolutionary 'peak' of historic progress.

This destabilizing of modern Western values by the foreign intruder from the past can be seen in the manner in which the heroes go about defeating Dracula. Van Helsing, a man of science, is forced to take recourse to folklore and religion in order to understand the threat of

vampirism and the methods of destroying it. In this manner, Western civilization relies on knowledge from the supposedly barbaric East to understand the world outside of the West's narrow scope of science, undermining the hegemony of modern Western science as the source of all knowledge and truth. Science is also undermined by Christian religion, by demonstrating its power in the face of scientific scepticism: while the power of the cross is debatable, the Catholic wafer burning Mina's forehead can certainly be seen as miraculous in the Catholic sense. Another way in which the heroes destabilize the binary of good versus evil is their constant breaking of moral and legal codes of Western civilization. Bribing the lower classes for information is not only necessary, but habitual for these characters, in particular for van Helsing. Furthermore, the heroes take repeated recourse to breaking and entering of Dracula's homes, explicitly discussing how to avoid the interference of the police, while Dracula operates within the law wherever he can as far as housing and payment for labour is concerned. This complicates the simple binary of the lawful hero versus the criminal villain: both act outside strictly defined binary roles. A third way in which the binary system is complicated is the heroes' journey to Transylvania to defeat Dracula. Rather than defeating the invader in their own country, they perform a counter-invasion of Transylvania, destroying Dracula's centre of power and killing him. Lastly, the manner in which Dracula is finally defeated can hardly be called heroic: ambushed and killed while still asleep, Dracula has no opportunity to defend himself. When compared to Western notions of modern nineteenth century warfare, this anticlimactic fight seems hardly worthy of those standards, moreso because this counterattack involves the killing of women, who are considered civilians and off-limits to Western warfare. Compare this to Dracula's recounting of wars with the Mongols and Ottomans, wars in which civilians were regular casualties. Compare also the stakings and beheadings of Dracula's enemies in the past to the manner in which vampires are dispatched: a stake through the heart, and a beheading. This blurs the binary pair of Western 'civil', modern warfare with Eastern barbaric, ancient war. In defeating the vampire, the heroes employ the cruelties of war that civilized Western Europe has sought to eradicate.

Conclusion

In conclusion, *Dracula* embodies the existential threat implicit in fin de siècle sentiments, the threat of the foreign Other that aims to destabilize and destroy Western civilization for its own aims, which are firmly located in an occult past that civilization ostensibly has left behind and overcome with the forces of Empire and science. *Dracula* also serves as a reflection on various scientific debates, most notably that between Darwinian and Lamarckian evolution, animal magnetism and hypnotism, and occultism versus science. Particularly in the last case, *Dracula* demonstrates how the occult past and religious superstition and mysticism can intrude on science, as science uncovers the workings of things formerly considered to be magic, such as hypnotism or vampirism.

Hypnosis plays a central role in providing a sense of abjection of the self, both in *Dracula* and other works such as *The Beetle*. In both books the power of mesmerism is mainly conveyed through looks, and made visible by the monster's eyes. The use of mesmerism, or animal magnetism, reinforces the animality of the monsters and depicts them as closer to a natural force (especially with Dracula and his geochemically induced vampirism). Mesmerism is also connected with masculine social power and sexual dominance, with the victims mainly being women, whereas the male victims are depicted as emasculated in some fashion (the insane Renfield, the homeless and jobless Robert Holt, and the enslaved and sexually dominated Paul Lessingham). Mesmerism is further connected with animalism in their practitioners' ability to transform into animals. The powers of mesmerism, through emasculation of Lessingham as representative of the Empire's government, also works to emasculate Victorian patriarchal and imperial systems. Part of this emasculation works through the spectralization of the victim, whereby they are made uncanny to themselves. This results in objectification of the self, which combined with forced action results in a strong sense of abjection. Through mesmerism, identity is disturbed and strict borders are broken. This detachment of the self is similar to *Jekyll and Hyde*, where the detaching and splitting of personality is achieved through scientific, rather than occult, means. However, mesmerism also involves displacement of the self by an alien Other. Mesmerism, through this undermining of personal willpower and identity, also undermines the hegemony of Empire.

Lastly, *Dracula* also works to unsettle Victorian civilization by forcing its defenders to adopt the very narratives and tools that Victorian science has sought to discredit, particularly that of the vampire and its occult and religious connotations. The battle against vampirism forces the heroes to break laws, social conventions, and conventions of Western modern warfare; the counter-invasion of Dracula's home uncovers the primitive, uncivilized past of the civilized West, demonstrating that the progress of civilization has covered up, but not replaced its own past, which still threatens it from both outside, and implicitly, inside as well.

4. The Time Machine and The Island of Dr Moreau

What might not have happened to men? What if cruelty had grown into a common passion? What if in this interval the race had lost its manliness, and had developed into something inhuman, unsympathetic, and overwhelmingly powerful? I might seem some old-world savage animal, only the more dreadful and disgusting for the common likeness – a foul creature to be incontinently slain.

- H.G. Wells, *The Time Machine*

More disturbing than the unknown is a distortion of the familiar.

- Magic: *The Gathering*, Fleshmad Steed

H.G. Wells' scientific romances, *The Time Machine* and *The Island of Dr Moreau*, both contain some of the central themes of science, horror and evolution outlined at the start of this thesis. *The Time Machine* focusses on a time traveller who visits the far future, where he discovers how humanity has evolved into two separate species, while simultaneously degenerating to the point where civilization has already collapsed, with the two human species devolving into a predator-prey relationship. *The Island of Dr Moreau*, meanwhile, focusses on the futility of scientific attempts to turn animals into humans. The story explores the nature of both humanity and animality in Moreau's creations, while also commenting on some of the excesses of scientific endeavours without ethical restraints. Both stories explore the transformative aspect of the abhuman in opposite directions: in *Moreau*, animals are forcibly evolved to physically and mentally resemble humanity (effectively mirroring intelligent design), while in *The Time Machine*, humankind loses its humanity through natural evolution.

The previous books have all dealt with the theme of loss of control and of centeredness of one kind or another. In *Jekyll and Hyde*, the loss is of control over one's own identity, and the central self is destabilized. In *The Great God Pan*, this loss is seen in the existence of an

unintelligible world where human understanding of the world around them breaks down to the point where that understanding becomes impossible, and humanity is no longer the central point of reference for all knowledge. This novel also features a decentring of humanity as both above and central to the natural world. In *Dracula*, this loss is felt twofold, on a personal level through the curse of vampirism as well as the overpowering force of hypnosis, and in the loss of scientific and cultural hegemony of Western civilization over less ‘advanced’ societies. Here, Western civilization is decentred as the seat of scientific knowledge in favour of the knowledge of the European periphery. In *The Beetle*, the same personal loss of control through hypnosis occurs, in even more dramatic fashion than in *Dracula*. The novel also destabilizes and decentres the notion of fixed gender identity. Also, like in *Jekyll, Pan* and *Dracula*, the fixedness of the human form is lost as well.

The Time Machine and the *Island of Dr Moreau* take the loss of humanity’s place at the centre of the natural world (geocentric, anthropocentric) a step further, the former by exploring the relation of humanity to the future history of Earth, and the latter by exploring the essence of human nature by displacing it into other animals. In *The Time Machine*, the decline of Empire and the degeneration of humanity are not merely threats, but an inevitability, and even life and Earth itself is shown to be ultimately unstable, as the lifecycle of the sun sets a hard limit on the habitability and survival of Earth. The story also unsettles humanity’s permanency in history. *Dr Moreau* meanwhile does not merely propose the bestial nature within humankind, but posits the possibility that human nature could be entirely external and incidental to the human species, and could arise in any other species. Taken together, these stories form a reflection on human nature in relation to the natural world.

Entropy and the end of everything in *The Time Machine*

The main theme in *The Time Machine* is that of the transient nature of civilization, humanity, and eventually of life on Earth, with Darwinian evolution as a driving underlying theme. In his book (co-authored with John Cartwright), *Literature and Science*, Brian Baker points out that the

Church of England preferred progressive evolution, where history was teleological, i.e. with a clear end goal that provides meaning and direction to history. Baker notes that this creates a revisionary history that validates the present situation (Cartwright 199-200). Wells takes this idea to its logical conclusion, displacing the “now” assumed in teleological history into the distant future, using the Victorian present as a projection into the future. Wells envisions a future in which the stratified structure of Victorian society is pushed to the extreme, with an upper class that has lost its intelligence and strength to a decadent lifestyle, evolving into docile, cattle-like beings. This decadent lifestyle is provided by a working class which has been driven entirely underground, and have evolved into entirely nocturnal creatures, yet still maintain more intelligence than the upper classes due to their role as caretakers of the upper class. Wells strengthens this social extrapolation by applying Darwinian evolution, whereby the two classes split into the two distinct species described above: the upper class has evolved into the Eloi, while the lower class become the Morlocks. The Time Traveller concludes that these two new species are in the process of overturning their original master-servant relationship, and the Morlocks are now becoming the ranchers of the Eloi, reducing them to a predator-prey relationship while preserving a more primitive semblance to humanity (namely, that of farming). By creating this new future ‘now’, Wells subverts the Victorian idea of teleological history by showing that the idealized present can lead to a future that involves a degeneration of the human species and a collapse of human civilization.

This degeneration of humanity into the Eloi and Morlocks forms the first stage of biological entropy in the story. For the second time leap of the story, Baker connects the themes of evolution and degeneration to that of entropy, the measure of order in a closed system, and the second law of thermodynamics, which states that in a closed system, entropy can only increase. As Baker points out, Earth, and the universe as a whole, can be seen as a closed system, which means that, as time goes on, “[t]he universe evolves from one state to the next, losing energy and order as it goes.” (Cartwright 245-246). Baker links the entropy of the universe to evolution, stating that “[e]ntropy is, like degeneration, an inverse image of evolution: time does not create greater diversity (more complex order) through natural selection, but creates greater disorder through the principle of entropy.” (Cartwright 246). This degeneration of Earth and its life can be seen in the second and third time jumps of the Time Traveller: the moon disappears from the sky,

and the Earth is tidally locked towards the Sun, which in turn has entered its red giant stage, creating an eternal twilight along a small band of the planet (Wells, *The Time Machine* 67). Life, meanwhile, has degenerated into mosses, giant butterflies and monster crabs, evoking a reverse evolution into a more primordial state (Wells, *The Time Machine* 68). There is no trace of humanity left: however, traveling to an even farther future, the Time Traveller observes a football-shaped creature with tentacles hopping on a sandbank (Wells, *The Time Machine* 69). While this creature is not directly identified, a connection can be made to the Martians in *War of the Worlds*, and a reference to an article where the ultimate result of human evolution is described as a giant brain with oversized hands (Wells, *War of the Worlds* 795). Comparing this vision of humanity as a giant brain with no digestive system to the creature seen in *The Time Machine*, the latter can be seen as the counterpoint to the former: a giant stomach with no brain, perhaps as commentary on the emerging consumer society.

The Time Machine also explores social entropy, as it describes the downfall of civilization. This degeneration of civilization is most obviously seen in the physical state of decay of the buildings in a futuristic London, and in the remnants of a museum, where the history of civilization is in various states of decay. Perhaps the most poignant of these is the decayed library, where the books are little more than shreds of paper. This physical entropy, particularly that of the museum, symbolizes the effects of entropy on accumulated knowledge, which decays without the preserving influence of humanity. Entropy can also be detected in the deteriorating social relations of the humans in future London. Society here begins highly organized and culturally abstracted, stratified into a serving, productive working class and a controlling, consuming upper class. Because this social stratification becomes highly rigid over time, with no new organizing energy input, entropy works to deteriorate this social system into a less complex one. In the context of biological degeneration, 'less complex' here means a more primitive, more animalistic social structure, namely that of predator-prey. The passive consumer class becomes prey, while the active worker class becomes predatory.

Gods, beasts, and humanity in *The Island of Dr Moreau*

The *Island of Dr Moreau* focusses on two themes, the first being the morality of science without ethics, and the second being the nature of humanity and its relation to animal nature. The first theme is explored mainly through the practice of vivisection. Vivisection was already controversial during the nineteenth century, leading to the Cruelty to Animals Act of 1876, which required a licence for vivisection, as well as stringent requirements as to the necessity of the research (“An Act to amend the Law relating to Cruelty to Animals (15th August 1876)”). Moreau’s backstory depicts him as a scientific outcast, his practices uncovered by sensationalist journalism, and subsequently derided by the general public:

’The Moreau Horrors’ . . . a prominent and masterful physiologist . . . suddenly his career was closed. He had to leave England. A journalist obtained access to his laboratory in the capacity of laboratory assistant, with the deliberate intention of making sensational exposures; and by the help of a shocking accident – if it was an accident – his gruesome pamphlet became notorious. . . . a prominent editor . . . appealed to the conscience of the nation. It was not the first time that conscience had turned against the methods of research.” (Wells, *The Island of Dr Moreau* 98).

Aside from moral outcry, Moreau’s methods of vivisection violate several points of the abovementioned act: he does not use any anaesthetics, causing unnecessary pain in his subjects, the subjects are not killed after the end of the experiment despite the suffering of the animal, and there is no government oversight on his research. Another problematic aspect of Moreau’s scientific work is the lack of a clear end goal, together with a poor understanding and management of the ethical consequences. While Moreau succeeds in creating (or stimulating) intelligence in his animal subjects, this new status is shown to be highly unstable, as the creatures revert to their animal form (both in mind and body) without constant renewed operations, creating a perpetual loop of torturous vivisection and slow degradation:

The human shape I can get now, almost with ease . . . But it is in the subtle grafting and re-shaping one must needs do to the brain that my trouble lies. . . . least satisfactory of all

is something that I cannot touch, somewhere . . . in the seat of the emotions. Cravings, instincts, desires that harm humanity . . . just after I make them, they seem to be indisputable human beings . . . [but afterwards,] [f]irst one animal trait, then another, creeps to the surface . . . But I will conquer yet. Each time . . . I say: this time I will burn out all the animal, this time I will make a rational creature of my own. . . . [But] [a]s soon as my hand is taken from them, the beast begins to creep back, begins to assert itself again... (Wells 125)

This physical, and especially mental, instability and degradation forces Moreau to impose a reign of terror on his creations, controlling them with fear and pain, forcing them into a master-slave relationship. This relationship is also reminiscent of the God-like creator who creates life from inanimate matter, or here, humanity, intelligence and consciousness from crude animality (animal matter, rather than inanimate clay). When this social structure is destabilized by Moreau's death, it is briefly but unsuccessfully replaced by a religious structure, wherein Moreau is treated as a literal God by the creatures. The failure of this deification of Moreau can also be linked to the idea of entropy: without the active organizing effort of Moreau, his creations irreversibly decay into the 'animal matter' from which they were shaped. This also seems to have a rather strong religious implication: without the active interference of God, humanity itself may be destined to revert, first to animal matter, then to the proverbial clay (i.e., extinction).

This social structure created by Moreau, and later by the protagonist, ties into the second theme, that of the nature of humanity. Stableford points to Wells' essay, "The Limits of Individual Plasticity," in which Wells discusses the advances of transplantation, as well as psychology and hypnotism, and their "promise of a possibility of replacing old inherent instincts by new suggestions, grafting upon or replacing the inherited fixed ideas." (qtd. in Stableford 60). When human nature is something that can be grafted onto animal nature through hypnotism, it follows that this nature must be a reflection of the suggestions made by its originator, in this case Moreau. Having selected mostly predators for his subjects, Moreau faces the problem of keeping his creations from attacking him and each other, resorting to hypnotically instilled laws, in the form of near-religious chants:

'Not to go on all-Fours; *that* is the Law. Are we not Men?'

'Not to suck up drink; *that* is the Law. Are we not Men?'

‘Not to eat Flesh or Fish; *that* is the Law. Are we not Men?’

‘Not to claw Bark of Trees; *that* is the Law. Are we not Men?’

‘Not to chase other Men; *that* is the Law. Are we not Men?’

...

‘*His* is the House of Pain.

‘*His* is the Hand that makes.

‘*His* is the Hand that wounds.

‘*His* is the Hand that heals.’ (Wells 113)

Note the pseudo-Biblical listing of prohibitions, reminiscent of the Biblical ten commandments, and also the capitalization associated with descriptions of the Christian God. However, the creatures, while showing signs of intelligence and reasoning, do not possess any understanding of cultural laws, ideas of civilization, or religious fervour suggested to them. In *Gothic Romanced*, Botting notes that this creates a “[mockery of] the values of human culture and civilisation as little more than fragile, superficial masks.” (Botting 142). Being unable to find an independent humanity in the animals he experiments on, Moreau resorts to instilling his own vision of humanity on them. However, his attempt to recreate humanity in his own image, while also wanting to maintain absolute control, leads him to create a version of humanity very similar to the imperial image of the primitive human, who is expected to be ruled by civilized man. Botting notes that this vision of humanity as a mere mask hiding animality also infects the heart of Empire, where the protagonist notes the same animalistic behaviour patterns in humans back in England as he has seen in Moreau’s creatures (Botting 142). The application and eventual failure of Moreau’s scientifically enforced evolution can be seen as allegorical for human evolution: humans have evolved from animals, and while language and laws can give the appearance of being set apart from the animal kingdom, humanity still has its roots in the animal world.

Extending this allegory of evolution, Moreau can be seen as an external force guiding evolution along a set pathway, with current humanity as the end goal. This is similar to the teleological history deconstructed in *The Time Machine*, allegorically recreating the teleological argument for the existence of God, also known today as intelligent design. By explicitly declaring Moreau to be God-like, Wells explores this teleological argument in his story, implying that without the guiding hand of God, humanity would not have evolved at all, and would degenerate

back into animality when the influence of God is removed. However, by deconstructing the idea of teleology itself (particularly in *The Time Machine*), Wells demonstrates that God, like Moreau, cannot have a clearly defined end goal for evolution, because there is no end point to history, and evolution is similarly a continuous process without an end point. In this way, similar to *The Great God Pan*, the story destabilizes notions of a fixed humanity outside of evolution. The possibility (deemed likely by Wells, as seen in his article) that science can create intelligent life reinforces Darwin's theory of human evolution out of more primitive animal species, further undermining the idea of a divine creation of humanity. Together with the undermining of teleological history, the story shows that degeneration is not merely a threat to humanity, but an inevitability of unguided evolution. One further implication of the story, also implied in *The Time Machine*, is that evolution does not involve apocalyptic shifts in the nature of humanity, but is a gradual process. Returning to the allegory of intelligent design, the death of Moreau does not trigger an apocalyptic, sudden return to animality, but merely speeds up the process that was always present among his creatures.

Dissecting humanity and Empire

The Time Machine and *The Island of Dr Moreau* work to fully destabilize the nature of humanity and its place in history and nature. Glendening notes that *The Island of Dr Moreau* can be seen to disrupt dualistic categories concerning humanity, such as progress/degeneration, human/animal, nature/culture, and order/chaos (Glendening 39). Similar to *The Great God Pan* and *Dracula*, it is scientific endeavours and their reaction to new discoveries that destabilize these dualities. Moreau's experimentations demonstrate the instability of the above dual categories, especially human/animal, decentering humanity as separate from and superior to the animal kingdom, and nature/culture, exposing culture as a thin, artificial layer over a more primitive natural core. The duality human/animal also traditionally places humans outside of nature, while the animal resides within nature. Both of Wells' novels place humanity back in nature, which causes this duality to merge into a general animal category, where characteristics of humans and animals are interchangeable: in *Moreau*, animals can acquire human traits and behaviours, while in *The Time Machine*, humans degenerate into an animalistic predator-prey relationship as humanity splits

into separate subspecies. The duality of progress/degeneration is also disrupted and merged, especially in *Time Machine*. The evolution of the Eloi and Morlocks are a clear progression from the Victorian starting point of the novel, but ultimately produce a degenerative result. In this pairing, progress, along with nature, evolution, and history, is decoupled from an anthropocentric worldview, and degeneration, rather than being an opposite, becomes an integral part of progress in the wider context of the natural world. In *Time Machine*, history itself is also decoupled from the anthropocentric worldview, which also destabilizes the duality of order/chaos. In this pairing, order is associated with humanity, while chaos is paired with nature. By placing humanity back into nature, it is then exposed to the forces of chaos, allowing humanity to be decentred in history as well. As has been seen above, humanity first degenerates, then disappears from the stage of history altogether.

The focus on long term evolution, through allegory or time travel, reveals the abhuman aspect of the human species. The concept of the abhuman is defined as a subject in transition from one state to another. Combining the stories, *Moreau* representing our evolutionary past, and *The Time Machine* our evolutionary future, the human present is placed at the centre of abhumanness. This centring on abhumanness implies an abjection of the idea of human identity, sharing and interchanging animalistic features with the natural world of which it is now a part. Because humans and other animals are now so interlinked through evolution, the exact nature of what makes humanity human becomes unclear. *The Time Machine* also demonstrates how degeneration is endemic and unavoidable because of the powers of entropy, by which order and civilization are inevitably overcome in time.

The notion of destabilized dualities can also be applied to Victorian Empire. *The Time Machine* has demonstrated that the powers of entropy imply that civilization cannot last forever, but also shows that a civilization is only as enduring as its creators. The civilization we see in *The Time Machine* is crumbling, but not destroyed from the outside, rather, the humans inhabiting it are in the process of losing their humanity, and with it the ability to maintain civilization as it existed in the past. Further, the destabilizing of civilization is caused by the very social structures instilled by that civilization, which over evolutionary timespans promotes an evolutionary path detrimental to the upholding of civilization. Whereas in *Dracula* the destabilizing threat comes from without, here the threat is intrinsic to civilization itself. This intrinsic instability of

civilization is reinforced in *The Island of Dr Moreau*, where the lines between animality and humanity are blurred, and this blurring can be recognized in Victorian civilization.

Conclusion

In conclusion, *The Time Machine* and *The Island of Dr Moreau* work to destabilize both the anthropocentric position of humanity in nature and history, and the stability and progress of civilization. *The Time Machine* focusses on the theme of entropy and its degenerative influence on evolution and civilization on extremely long timescales. The novel deconstructs the notion of teleological history by demonstrating that the teleological ‘now’ is not a stable end point to history, but simply an essentially arbitrary connecting point between a far past and far future. Wells postulates that this far future, through incremental logical progressions from a given starting point (i.e. Victorian class society evolving through increasing class stratification), can lead to a new evolutionary state that naturally follows from the former, yet constitutes a net degeneration of the human species. Wells even suggests an ultimate evolutionary form, that of a brainless consumer. Entropy does not only show in the degeneration of humanity, but also the decay of civilization, social structures, and knowledge.

The instability of a teleological worldview is also explored allegorically in *The Island of Dr Moreau*, deconstructing the notion of intelligent design by proposing that human traits are not exclusive to humans and can be recreated in animals, and that the resulting humanity in these creatures is unstable in the long term. The controversial practice of vivisection lies at the core of Moreau’s God-like aspirations to create humanity from animals. Moreau’s creations can be seen as evolution on a human timescale, with Moreau functioning as a creationist God. Mirroring the evolutionary path of humankind, including its potential future outlined in *The Time Machine*, animals are moulded into human form by Moreau, who uses biblical-esque commandments to keep his creatures from straying from their predestined path. Reflecting *Time Machine*, however, once Moreau’s influence is removed, entropy sets in and his creatures revert to the animals from which they were shaped. Aside from this religious angle, Moreau’s creatures can also be interpreted as standing in for the colonial project, namely, bringing culture and civilization to less developed peoples. The novel can then be seen to deconstruct the civilizing project in light of

racist attitudes, concluding that, if these outside groups of humans were really that primitive, then civilizing efforts should necessarily be fruitless.

When taken together, *The Time Machine* and *The Island of Dr Moreau* can be seen to destabilize dualistic categories concerning the nature of humanity and its place in history, nature, and civilization. As seen in *The Time Machine*, the disruption of a teleological worldview destabilizes the categories of progress/degeneration and order/chaos, while *Moreau* disrupts dualistic categories of human/animal and nature/culture. Wells' novels place humanity back in nature, and decentres it from evolutionary and historical time through displacing humanity's localized viewpoint to the (literal or metaphorical) future. Progress and its opposite of degeneration are decoupled from the anthropocentric worldview of nature, evolution, and history. Also, through entropy, degeneration is made an inevitable part of progress, subverting its optimistic implications of ever-improving civilization. The exploration of long term evolution also reveals the abhuman nature of the human species, by revealing humanity to be a species in an eternal state of transformation due to the powers of evolutionary pressure. By centring humanity in abhumanness, the novels show an abjection of human identity, which can no longer be seen separate from animal nature. The question of what makes humanity human becomes unclear because there is no longer a clear break between the dual category of human/animal. Similarly, entropy and evolution imply that human civilization not only cannot last forever, but also will inevitably deteriorate, not only because of entropy, but because of evolutionary forces pushing humanity away from advanced modes of civilization to more primitive, and eventually more primal social structures.

Conclusion

My days I devote to reading and experiments in chemistry, and I spend many of the clear nights in the study of astronomy. There is, though I do not know how there is or why there is, a sense of infinite peace and protection in the glittering hosts of heaven. There it must be, I think, in the vast and eternal laws of matter, and not in the daily cares and sins and troubles of men, that whatever is more than animal within us must find its solace and its hope.

- H.G. Wells, *The Island of Dr Moreau*

As soon as science begins to disturb notions of the human, it becomes a site of particular interest to the Gothic writer.

- Punter, *The Gothic*

In closing, I will give a brief summary of my main themes at the start of this thesis, formulating an answer to the research question stated at the start of this essay, that is: how do the rise of Darwinian evolution, fin de siècle fears of degeneration and the abhuman monster affect the representation of science and the scientist at the end of the Victorian nineteenth century, and how is this reflected in the selected corpus of fiction? The first main theme is the threat to Empire posed by the actions of Gothic monsters, the underlying societal hysteria amplifying the fear of such monsters and what they represent, and the eroding power of entropy on humanity and its civilizing efforts. The second theme revolves around the abject and abhuman qualities engendered by those monsters, and what they say about the nature of the human body and mind. Of special note here are the primeval and bestial nature (both biologically and mentally) lurking beneath the surface of humanity, human autonomy and free will, and the limits of human understanding. The third main theme is the influence of Darwin's theory of evolution and its implications of degeneration of humanity. This degeneration can be seen on a physical, mental, and linguistic level. The combined powers of evolution and entropy also have a profound impact

on the place of humanity and civilization in nature and history. Finally, I will discuss the relation of scientists to the Victorians and Gothic literature.

Threatened Empire

The majority of the novels discussed in this essay fit into the genre of Imperial Gothic. Brantlinger describes part of this genre as invasion literature, where “characters, creatures, or uncanny objects from . . . faraway places invade Britain, threatening domestic peace and harmony, as in Bram Stoker’s *Dracula*.” (Brantlinger 203). *Dracula*’s threat to Empire consists mainly in his destabilization of dualistic pairings within Imperial doctrine. *Dracula* challenges Victorian modernity by embodying a primitive, violent past shared with the modern Victorians, which now threatens to undermine moral categories, revealing their historical contingency. Through *Dracula*, Victorian civilization is revealed to be a mere veneer over its own violent past of wars and invasions. Another binary disturbed by *Dracula* is that of Victorian modern science versus barbaric occult knowledge from the East. Van Helsing, a Western scientist, is forced to resort to Eastern folklore and Christian occultism to first identify, and subsequently combat the vampire. This reliance on folklore and occultism undermines the hegemony of Western science, decentring the source of knowledge from Western, secular science to Eastern folktales and Christian magic. The quest of the heroes in the novel also undermines the moral superiority of Empire, by forcing the heroes to work outside the legal framework of civilization, while *Dracula* manages to harness that same legal system to his advantage. The heroes can also only stave off *Dracula*’s invasion by counter-invasion, utilizing ‘barbaric’ modes of war such as ambushing and the killing of ‘non-combatant, civilian’ women. Thus, the novel deconstructs the notion of ‘civil’ modern Imperial warfare, exposing its barbaric core.

Brantlinger notes that while *Dracula* is a foreign imperialist, another example, the Beetle from Marsh’s novel, forms a threat from within the colonies of the Empire, which prove to be unstable and dangerous to Victorian tourists (Brantlinger 203). The threat to Empire in *The Beetle*, in contrast to *Dracula*, is internal to Empire, emerging from the colonized, partly civilized, yet still Other Egypt. The Beetle, too, disrupts Victorian civilization, but on the individual level, by threatening the Victorian citizen’s autonomy and free will through occult powers of

mesmerism, and by disrupting Western dualities of gender and sexuality, refusing to entirely conform to either side of both dualities, and forming an ‘impossible’ middle ground: both male and female, both heterosexual and homosexual. However, the main threat to Empire is not formed by the horrors of the Beetle, but by the terror of scientific progress and the prospect of entropic degeneration of civilization itself.

The scientific notion of entropy plays a central role in fin de siècle fears of decay of Empire. The Beetle provides an interesting case study of how the Gothic monster relates to more realistic, yet equally intangible threats to Empire. In her article, Anna Maria Jones argues that *The Beetle* “leads with the horror of monstrous disintegration while suspense builds slowly around the terrors of productive human energy.” (Jones 66). Jones uses Robert Hume’s definitions of horror and terror here, namely:

‘terror-Gothic’ is dependent on ‘suspense or dread’ produced in the reader by ‘vague but unsettling possibilities.’ Conversely, ‘horror-Gothic’ novels ‘attack [the reader] frontally with events that shock and disturb him. Rather than elaborate possibilities which never materialize, they heap a succession of horrors on the reader” (Jones 66)

Jones argues that the unpredictable nature of “productive, self-willed energy” suggests far greater fears than that of the monstrous creature preying on England (Jones 66). Jones links this terror element in the novel to nineteenth century energy physics, in particular the first and second law of thermodynamics. The first law describes the conservation of energy within a closed system, while the second law states that closed systems are always increasing in entropy (Jones 66). Jones notes that critics have characterized the first law as optimistic, and the second as pessimistic. Jones connects these two laws to the ideals and fears of the Victorian age, stating that:

[t]he ‘promise’ of the conservation of energy is the promise of work, of harnessing potential energy and converting it into ‘energy of motion.’ The ‘sober reminder’ of the second law is the inevitable end, the decay of the system, of the Empire, the death of everything. (Jones 67).

Jones links the conservation and dissipation of energy to the ideals of masculinity, and its ties to the building of Empire: “to exert one’s self in self-cultivation . . . is to participate in nation-cultivation.” (Jones 70). Jones notes that Jonathan Harker and company are positive examples of this exertion of energy in defence of England against Dracula (Jones 70). Negative examples can

also be found, however: in the context of this essay, the efforts of mad scientists comes to mind, from Dr Jekyll's experimentations resulting in a crisis of identity and death, to Dr Raymond's creation of an eldritch abomination, to Dr Moreau's cruel experiments on animals. Jones notes (for different examples than these) that villains also tend to dispatch themselves, rather than being stopped by the heroes (Jones 70), which is true for Jekyll and Moreau, while Raymond is spared, perhaps because the focus lies on the bigger threat of his creation. Jones then argues that, though entropy is horrifying, it is predictable, while conservation and exchange of energy through human agency is unpredictable and terrifying (Jones 72). The scientist Atherton in *The Beetle* provides a chilling prospect for that unpredictable human agency: a deadly chemical weapon, to be sold to the highest bidding government, which could spark an arms race in war technology, which is to continue, in Atherton's words, "Until the sun grows cold. . . . There'll be no defence, - nothing to defend." (Marsh 84). Jones notes that these disturbing implications mean that "humanity has less to fear from the far, far distant future death of the sun than it does from the progressive death-dealing that the planet's denizens will engage in" (Jones 76-77).

The threat of entropy to civilization, and to humanity itself, is further explored in Wells' scientific romances, mainly in *The Time Machine*. This novel works to deconstruct the teleological view of human history, civilization, and human evolution, where history and evolution trend towards an anthropocentric, highly civilized 'now', focussed on Victorian society. By displacing the focal point of the historical 'now' into the extremely far future, *The Time Machine* exposes this 'now' as an arbitrary point of time, and, rather than an endpoint of anthropocentric civilized stability in history, shows it as a mere midpoint in an ever evolving natural world, where humanity no longer forms the centre of history and nature, and is itself susceptible to evolutionary pressure. The novel also demonstrates the transient nature of scientific knowledge as dependent on human agency: no matter the heights to which science can rise, someday all that can be lost forever.

Whereas *The Beetle* discards its horror monster to reveal the terrors of modern science, *Dr Jekyll and Mr Hyde* works to uncover the underlying societal structures that form the main cause of Hyde's monstrosity. In showing the hysterical and hypocritical reactions of London's citizens to Hyde's accidental run-in with a young girl late at night, the story reveals the hypocritical repression of Victorian society. When 'inappropriate' behaviour is suppressed, it can surface in a

'dark' side of the personality, which creates feelings of dread and melancholy in the subject, and causes this suppressed side of the personality to be associated with shame and deviancy. The repressing of the 'Hyde' of the personality not only damages the individual, but also civilization as a whole, because it prevents individuals from utilizing the full force of their creative resources and energies. Repression of these energies causes occasional outbursts that, through irresponsible overindulgence, end up causing evil. Because of the repressive pressures of the collective, repressed desires are treated as wicked and as alien to the self, causing dissociation of the subject from their own behaviour. Thus, the novel suggests that personal evil partly has its roots in societal repression of aspects of the personality, causing them to surface uncontrolled in harmful ways, and subsequently preying on those individuals that are 'caught in the act', vicariously releasing its own repressed energy through the condemnation and exploitation of these self-created monsters. The theme of entropy is closely interwoven with that of degeneration and its influence on evolution, humanity, and scientific progress, which I will discuss further below.

Abjection, abhumanity, and human autonomy

While the actions of monsters work to undermine Victorian society on an abstract level, they also disturb the Victorian individual on a more concrete, personal level, mainly through the effects of abjection and abhumanity. As described in the introduction, Kristeva defines abjection as that which lies outside of "the scope of the possible, the tolerable, the thinkable", which cannot be incorporated in conventional models of human experience, and which ends up both attracting and repulsing the subject. The abject is not objectively defineable, and no definite meaning can be attached to it (Kristeva 1-2). The abject is often that which disturbs social norms or invokes personal or societal taboos. One example of this abjection can be found in *Jekyll and Hyde*, where Hyde is described as not just primitive, but actively repulsive, a repulsion that cannot be specifically defined as any quality of Hyde, but only manifests itself as a sense of deformity. Hyde is also coupled with the taboo, through his coded behaviour as homosexual. As noted in the

previous section, this taboo aspect reflects on the societal repression and hysteria, as society forcibly rejects homosexuality, abjectifying it as a taboo that is beyond comprehension by 'normal' Victorians. Another aspect of abjection is revealed in the relation of Jekyll and Hyde. The existence of Hyde as an integral part of Jekyll's personality subverts the image of the self as a stable, singular whole, revealing it, as Jekyll puts it "[as] a mere polity of multifarious, incongruous and independent denizens" (Stevenson 70). This splitting of the personality into distinct entities, hidden behind a seemingly unified, respectable exterior reveals the mind as abject to the outside world, intrinsically unknowable and undefined. But this abjection of the mind also impacts the subject itself, who can lose control of some suppressed aspect of their own personality. The Beetle is another strong example of monstrous abjection, but here it takes the form of ambiguous gender and sexuality. The Beetle also possesses the power of hypnotism, which causes abjection in its victims by overriding their free will and autonomy, turning its victims into instruments of its will.

The second aspect of monstrosity is the abhuman. Hurley defined the abhuman as "a not-quite-human subject, characterized by its morphic variability, continually in danger of becoming not-itself, becoming other" (Hurley, *The Gothic Body* 4), in other words, a body in a state of metamorphosis. As Hurley demonstrates, abhumanity is linked to abjection, because the abhuman subject, being in a state of metamorphosis, struggles to maintain its self-identity, while also welcoming the confrontation that "breaches the boundaries of the ego and casts the self down into the vertiginous pleasures of indifferentiation" (Hurley, *The Gothic Body* 4). This abjection of the self, Hurley argues, leads to the core of fin de siècle Gothic fiction, the ambiguity in the reader between repulsion and jouissance: the reader is "convulsed by nostalgia for the 'fully human' subject . . . and yet aroused by the prospect of a monstrous becoming." (Hurley, *The Gothic Body* 4). This idea of the abhuman was greatly influenced by Darwinism and scientific progress, connecting it to themes of evolution, degeneration, and the place of humanity in nature.

The notion of abhumanity, of a being in a state of metamorphosis, of a monstrous becoming, can be found in some form in all the novels discussed in this thesis. In *Jekyll and Hyde*, the metamorphosis into monstrosity appears in its most literal form, occurring on the physical as well as the mental level. Jekyll, a widely respected, civilized doctor, seen as the pinnacle of Victorian restraint and propriety, transforms into the loathed, (seemingly) degenerate

Hyde, who functions as the vehicle for Victorian fears about its own suppressed desires and fears of degeneracy and barbarity lurking under the veneer of civility. Hyde's abhumanity also ties in to Victorian taboos surrounding homosexuality and addiction. In *Dracula*, the abhumanity of the titular character lies mainly in his transformations into animal and ethereal forms, transformations that focus more on the abject, uncertain nature of the monster rather than a human turning monstrous, similar to the protoplasmic unspecificity of Helen in *The Great God Pan* and the transformations of the Arab in *The Beetle*. The abhumanity of the latter is also enhanced by the uncertainty of its gender, coupled with the taboo of homosexuality. The more conventional idea of abhumanity as a monstrous becoming of humanity is represented by vampirism itself, which works to forcibly corrupt the human into monstrosity. This abhumanness of vampirism is further connected to demonic possession and endangerment of the human soul, linking biological monstrosity to religious sin and damnation. Lastly, *The Time Machine* and *The Island of Dr Moreau* both widen the process of abhuman metamorphosis to the human species as a whole. *The Time Machine* directly examines the metamorphic effect of long-term evolution on humanity, revealing humanity as being in a permanent state of flux, a perpetual metamorphosis into something that will eventually no longer be human. *The Island of Dr Moreau* examines an inversion of sorts of monstrous metamorphosis, by examining the implications for human nature through the forcible metamorphosis of animals (monstrous in the sense of being brute beasts and mostly predatory) into something physically and mentally approaching humanity.

Abjection and abhumanity in these novels also reflects on human autonomy, the unity of the human mind, and the nature of human knowledge. The theme of human autonomy and free will is mainly explored through the forces of mesmerism and hypnotism. Mesmerism, or animal magnetism, is held to be an occult natural force possessed by all living beings, a physical process involving the transference of power and will. *Dracula* and *The Beetle* are both prime examples of monsters utilizing mesmeric powers over their victims. As Vrettos notes, mesmerism is associated with masculine authority over women and over animals (Vrettos 79-80). *The Beetle* adds to this the domination over lower classes and the weak-minded. Hypnotism, on the other hand, is grounded in science and psychology, and involves the power of suggestion rather than a direct influence. Both of these modes of hypnosis, the occult and the scientific, work to destabilize the notions of human autonomy and free will, revealing the possibility of an outside

will overriding that of the individual, and through the overpowering of the individual also threatens the autonomy of Empire. In *Dracula*, the masculine Other imperialist invading Victorian England, mesmerism works to undermine masculine power structures of Victorian patriarchy and class structure, victimizing both women and lower classes. The Beetle utilizes mesmerism to attack masculinity more directly, mainly by overpowering and controlling an upper class male politician from the very heart of Empire, emasculating and feminizing his victim as a lust object and slave (reinforced by the mixed gender characteristics and bisexual nature of the Beetle). Through this, the Beetle also inverts colonialist pairings of master/servant and ruler/subject. Mesmerism in particular also invokes abjection, but rather than an external object becoming undefinable, it is the subject itself, the hypnotized victim, that loses their sense of identity and autonomy. This results in the victim being “rendered uncanny to themselves and the reader” (Hurley, “Science and the Gothic” 172). The ego is expelled from the subject and becomes opposed to itself, causing the subject to perceive itself as abject, and as abhuman, as becoming a monstrous other alien to themselves.

The second theme, that of the subversion of the unity of the human mind and human identity, is mainly borne out by *Jekyll and Hyde* and *The Island of Dr Moreau*. The splitting off of Hyde from Jekyll’s personality demonstrates that the human mind, rather than being a singular, continuous entity, is “a mere polity of multifarious, incongruous and independent denizens” (Stevenson 70). This multitude of personality aspects creates abjection both in outside observers, for whom not all facets of another individual’s personality can be known from outside observation alone, and for the individual itself, for whom aspects of their own personality may be suppressed by society and remain unknown to the conscious self. These hidden aspects of the human mind then become part of the abhuman self, locked up in taboos and phobias, and expressed in mental ailments and aberrant behaviour, building up under the surface of cultural acceptability until it expresses itself in deviant and eventually harmful behaviour. Moreau’s humanized animals similarly reflect on the nature of the human mind, and its supposed independence from the natural world. Moreau’s creations demonstrate that the human mind is not unique to the human species, but can be artificially produced in sufficiently advanced animals as well, forming human reason as well as language out of animal minds. *The Island of Dr Moreau* also demonstrates the fragility of the human mind through these creatures, by showing that the

human mind is equally capable of degenerating back into a lower, animalistic form. The emphasis here is on the metamorphic nature of the human mind as revealed by (simulated) evolution.

The third theme touched upon is that of the nature of human knowledge, and the ultimately abject nature of knowledge, putting a limit on what is knowable to human science, as explored in *The Great God Pan*. In Plato's allegory of the cave, the world outside of the ordinarily perceptible is defined as the intelligible realm, containing all that can be comprehended by the human mind. The novel builds on this conception by suggesting another conceptual space which lies beyond human understanding or perception, represented as the spiritual sphere of the gods, which constitutes an unintelligible realm opposite and outside of Plato's conception. This notion of the unintelligible realm introduces the concept of abjectivity to scientific endeavours, positing that there are concepts and things that lie beyond human understanding or perception, and that cannot be explored by human scientific exploration. This destabilizes the notion of enlightenment science, the idea that science will ultimately be capable of fully comprehending and understanding the world around us. Similar to how the human mind is decentred from being separate from and above animality, the human mind is also decentred as the focal point of all knowledge (from a purely secular point, at least).

Darwin, degeneration, and hysteria

The third major theme of this thesis is the relation of Darwinism and degeneration to Gothic fiction, and by extension on the way humanity is perceived by the Victorians. Darwin's *On the Origin of Species* provides the framework by which species evolve new traits over time, while *The Descent of Man* deals with the evolution of humankind, and places humanity firmly in the natural world, dethroning it from its place outside and above nature. These evolutionary theories influenced the Victorians mainly in the social and political spheres, decoupling natural and human history from theological predestination, destabilizing a teleological worldview where modern civilization is the endpoint of history. Criminal anthropology, medical science, chemistry, geology, and psychology similarly worked to destabilize dualistic categories of human/animal and culture/nature. The theory of evolution also fed into fin de siècle fears of a

diseased social order, whose symptoms consisted of degeneration and hysteria (Nordau 9). In degenerate individuals, evolution works to amplify and propagate socially unacceptable behaviour, resulting in a reverse evolution from civilized humanity into barbarism and bestiality. This degeneracy can be criminal as well as non-criminal, mental or physical. Society's reaction to (fears of) degeneration is characterized by hysteria. Nordau defines hysteria using three characteristics: disproportionate impressionability, high suggestibility, and extreme self-centredness.

The theme of evolution plays some role in most works in the corpus. In *Dracula*, the notion of evolution remains in the background, though there are suggestions about the creation of vampirism through geochemical processes, as well as the notion of Lamarckian evolving of traits within the individual, which are then passed on through vampirism (compare this with Darwinian evolution, which only occurs from one individual to the next). In *The Great God Pan*, Helen is described as an evolutionary horror, reflecting the protoplasmic state from which all life evolved. Navarette calls protoplasm “*the sublimely abject substance – indefinite, unstable, amorphous*” (Navarette 190), linking the origins of humanity, through its evolutionary lineage, to its abjected past, and decentring humanity as being a product and part of nature. A similar decentring of humanity's place in nature takes place in *The Island of Dr Moreau*, where the eponymous doctor utilizes artificial evolution to create a human form and mind from animals. Wells' other novel, *The Time Machine*, posits the inverse of this notion, namely that humanity can also evolve into new species with newly expressed animal characteristics. The latter novel also works to undermine a teleological worldview, where history ends with a fully evolved, civilized humanity, by placing events into the far future, and showing the ensuing evolution and degeneration of humanity.

I have already touched upon the degenerative behaviour of Hyde and the hysterical reaction of London society previously. Whereas Hyde's degeneracy lies primarily in how society represents him, the vampire's degeneracy is presented as factual, as per the tendency of *Dracula* to frame the occult and the folkloric in terms of scientific explication. Vampirism is presented as a degenerate form of humanity, characterized by animalistic traits, as well as a closer affinity with animals and the ability to take the form of certain animals. Degeneracy in the form of transformations into animal form also appears in *The Beetle*. Here, transformation is more

explicitly used to heighten the sense of abjection in the Beetle. *The Great God Pan*, as mentioned before, utilizes degeneration into animal forms to abjectify the natural world, and to connect humanity to that same abject nature. Wells employs degeneration in both of his novels. In *The Time Machine*, the process of evolution is shown to hold the possibility of degeneration of the human species into animalistic forms, while in *Moreau* degeneration is demonstrated as an inevitable consequence of a non-deterministic evolution separate from divine design.

Another form of degeneration is that of language, the final, insurmountable “rubicon which no brute will dare to cross” (qtd. in Navarette 185), which forms a language barrier between humans and animals. Müller also views language as a divine gift from God, through which humans can perceive divine creation, expressed in ‘the word is the thought incarnate’. Understanding language was perceived to be the key to understanding human nature. However, Müller also views language change as a disease, or degeneration, of language. *The Great God Pan* reflects on these linguistic theories: extrapolating the indefinable nature of abjection, the novel’s own narrative structure deteriorates as it attempts, but inevitably fails to describe the abject horrors on its pages. This subverts the notion that human nature, and by extension the universe as a whole, can be understood through language: language is ever changing, ever degenerating into other forms, and can never fully describe or comprehend that which lies outside the intelligible realm of knowledge. The degeneration of language also plays an important role in *The Island of Dr Moreau*, deconstructing the notion that language is the final barrier that separates humans from animals. Alongside the creation of human form and mind from animals, Moreau grants his creations the power of speech, demonstrating that speech is not a divine gift, but an inherent trait that can be gained or lost by natural or artificial evolution. The notion of language as containing divine power is further deconstructed by Moreau teaching his animal-people a mockery of the Biblical commandments, and, after having given his creatures the power of speech, failing to become a God to them after his death.

Victorian scientists and Gothic literature

In “Science and the Scientist in Victorian Fiction”, Whitworth discusses the interplay of science and fiction. Whitworth defines science in the Victorian age as “the theorization of transformation: In ‘biology,’ the central concern was the transformation of one species into another; in ‘physics,’ the transformation of energy.” (Whitworth 111). As has already been shown in previous sections, these theories of transformations can be recognized in the themes of Darwinian horror (evolution), abhumanism (transformation), and degeneration (evolution and entropy). Whitworth then raises the question of “whether scientific ideas filter through into literature, as part of its conceptual unconscious . . . or are more actively appropriated by literary writers” (Whitworth 112-113). The former of these questions seems trivially answerable, as the presence of an idea such as neurosurgery or protoplasm in *The Great God Pan* clearly shows literature has absorbed these scientific advances. The latter, active appropriation, is not always as clear, but some cases can be made. For example, *Dracula* utilizes many cutting edge scientific discoveries in its narrative, and *The Island of Dr Moreau* directly references the controversies surrounding the scientific value of vivisection. Whitworth characterizes scientific theories as:

sites of debate . . . conducted not in purely scientific terms but with metaphors borrowed from contemporary social, religious, and literary discourse. The exploration of scientific discourse sharpens our understanding of the historical nuances of key words but does not necessarily impose a single determinate meaning on the literary text: Rather, it allows us to locate characters and narratives in the center of contemporary debates, and to reveal rich and complex exchanges of ideas. (Whitworth 120)

Through literary discourse, science is interwoven with the Gothic: “[a]s soon as science begins to disturb notions of the human, it becomes a site of particular interest to the Gothic writer.” (Punter 21). Several examples of scientific debate taking place in the sphere of Gothic literature have already been shown, in particular the threat of escalating scientific development of warfare technology in *The Beetle*, unethical treatment of test subjects in *Pan*, and the unethical treatment of animals for scientific experimentation in *Moreau*. These three examples in particular reflect on the role of Gothic fiction as adjudicator of the ethics of science: what is allowed, what is inhuman, and what is monstrous about the scientific process.

As we have seen, Gothic fiction also works to explore the deeper philosophical implications of scientific progress. *Jekyll and Hyde* explores the complexity of human identity and its relation to Victorian society, as well as the consequences to the individual. *Dracula* explores the relation between civilized Empire and the primitive, barbaric Other, revealing the interwoven nature of ideologically separated aspects of human nature, and utilizes scientific progress to resolve conflict, while also undermining that scientific progress by showing its limitations and paradoxes. *The Great God Pan* delves into the implications of science for the nature of humanity in relation to the animal and vegetable world, and explores the philosophical extremities of knowledge and the extent to which the human mind is capable of comprehension. *The Beetle* reflects on the dangers of boundless scientific advancement to humanity and the world, while also commenting on the relationship between predictable Gothic horror and unpredictable scientific progress. *The Time Machine* forms an even deeper exploration of entropy and degenerative evolution, and speculates on the fate of humanity and civilization. Lastly, *The Island of Dr Moreau* delves into the ethical debate of vivisection, and explores notions of sapience and language in animals and humans.

In conclusion, this slice of 1890's literature has provided a fascinating insight into the intersection of scientific progress, British imperialism, and Gothic literature at the close of the Victorian age. *Dracula* in particular is a great example of how imperial hegemony can be undermined by the globalizing effects of scientific progress at home and abroad, and serves as both a demonstration and deconstruction of Victorian invasion literature. Other novels, such as *The Great God Pan*, *The Time Machine*, and *The Island of Dr Moreau*, undermine humanity's place as central to nature, history, and the universe. Lastly, novels like *Dr Jekyll and Mr Hyde* and *The Beetle* question the nature of the Gothic monster as external to Victorian society, revealing the monstrous as an internalized part of the human condition and the society it inhabits. Throughout all this, the scientist emerges as the wielder of ever increasing power over the world, capable of creating as well as destroying horror, but with the balance always tending towards the destructive and monstrous inclinations of human nature. Gothic literature can work as a platform for scientific discussion in the social and literary sphere, demonstrating and deconstructing anxieties and uncertainties about both scientific progress and the fallible humans who guide it. With the ever-present anxieties in today's global society about new discoveries, from atomic

power, to robotics, to cloning and genetic manipulation, to the ever growing multitude of exoplanets, always present, Gothic literature will always find new sources of horror on the cutting edge of science.

Further research

Finally, there are several topics of interest that this thesis has not covered. The first and most prominent of these is a feminist reading of the discussed novels. *The Great God Pan*, *Dracula*, and *The Beetle* all have prominent female victims of either male monsters or scientists. Some of these victims, most notably Mina Harker and Marjorie Lindon, are characters who provide commentary on feminist and New Woman issues. How these two women interact with feminism and how the stories react to them would be an interesting subject of study. *Jekyll and Hyde* is also an interesting subject for feminist criticism because the story excludes any female characters. This could also be tied into gender studies, given the homosexual undertones of the story. One of the villains are also female, namely Helen Vaughan, who, aside from being a monstrous being, is also portrayed as a female Jack the Ripper, forming a possible link with sensation literature. A study focussed on gender studies would also be fruitful for *The Beetle*, whose titular character's gender is noticeably undefinable, mixing both male and female aspects.

Another group of subjects could focus on the role of nation and imperialism in these novels. All these novels feature London either as a prominent setting or as the locus of backstory. How the city of London functions as a Gothic setting and character of sorts in its own right, and how the city influences its Gothic inhabitants would be an interesting study. Another topic of interest is that of the construction of Otherness and Orientalism in several of these novels, notably *Dracula* and *The Beetle*. The latter of these novels could also serve as a starting point for a study into Egyptomania, which provides the main source of horror in that novel.

A last set of topics revolves around the ethics and practice of science. The characters of Dr Jekyll, Dr Raymond, Atherton, and Dr Moreau all practice their scientific experiments in isolation from the wider scientific community, neglecting or actively avoiding scrutiny from peers. Ethics also play a substantial role in the scientific undertakings of the last three of these scientists, which I have partly covered, but deserves more focussed study.

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