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The Function of Science as Parole in Gothic Fiction

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Z á s a d y   p r o   v y p r a c o v á n í :

Student si pro svou práci zvolil téma populárního obrazu vědy v gotickém románu. Svou práci tedy uvede charakteristikou strukturalismu a vysvětlením terminologie, se kterou bude v textu pracovat. Kromě toho se bude věnovat i otázce populární kultury, žánrové literatury a především gotického románu. Teoretický úvod doplní o analýzu dobového pojetí vědy, zejména otázce vlivu osvícenství. Ve vybraných primárních zdrojích pak bude analyzovat různé aspekty zobrazení vědy, postavy vědce, vztahu vědy a náboženství apod.

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Souhlasím s prezenčním zpřístupněním své práce v Univerzitní knihovně.

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And lastly, I also want to dedicate this thesis to all future students who will download it in order to check my bibliography for their potential sources. You will make it!

TITLE

The Function of Science as Parole in Gothic Fiction

ANNOTATION

This master thesis illustrates the way in which science is used in order to support and facilitate the meaning of a gothic narrative. Both theoretical and analytical parts are merged into one single unit. The paper provides a brief overview of structuralism with focus on terms langue, parole, and binary oppositions, together with Northrop Frye's framework and theory of archetypes. Subsequently, an overview of the Gothic as a genre is presented, which is followed by detailed analysis of individual structures present in the Gothic.

NÁZEV

Věda jako parole (mluva) v gotické próze

ANOTACE

Tato diplomová práce názorně popisuje, jak je v gotické próze použito téma vědy za účelem vytvoření smysluplného narativu. Teoretická a analytická část nejsou rozděleny, nýbrž sloučeny v jeden celek. Práce začíná krátkým shrnutím strukturalismu s důrazem na termíny langue (jazyk), parole (mluva) a binární opozice, a to společně s postojem a teorií archetypů Northropa Frye. Nadále je představeno shrnutí gotického žánru, které je následováno detailní analýzou jednotlivých struktur v gotické próze.

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Introduction

The Gothic provides its readers with the possibility to experience fear. There might be numerous reasons and even more scholars from various disciplines try to understand and describe the reason for such a phenomenon. However, the purpose of this thesis is not to observe and describe reasons why people like to get scared and why the Gothic was so popular, but to illustrate what was the possible source of readers' fears and how gothic authors used this knowledge in their narratives in order to invoke horror and terror. More specifically, the thesis is focused mainly on three widely popular 19th century gothic novels, namely *Frankenstein* by Mary Shelley, *Strange Case of Dr Jekyll and Mr Hyde* by Robert Louis Stevenson, and *Dracula* by Bram Stoker.

As it is apparent from those well-known tales, one of the frequent themes occurring in Victorian gothic fiction was the presence of a scientist. Therefore, the inclusion of rational and supposedly objective science into irrational and supernatural Gothic might be perceived as rather peculiar and, for that reason, forms the main object of study in the thesis. The analysis itself is based on ideas of structuralism. Specifically, the thesis incorporates mainly the terms *langue*, *parole* and *binary oppositions*, which come from Ferdinand de Saussure's linguistic theory. The acquired findings are organized into structures which show the relationship between the described possible sources of fear and actual scientific disciplines and theories occurring in the 19th century Victorian Britain. In addition, it is to be noted that this thesis is not traditionally divided into practical and analytical part. Instead, both parts are merged into a single unit and every chapter provides a theoretical background which is directly applied in an analysis.

To begin, there is a brief summary of structuralism as a starting point. The chapter provides basic information about Ferdinand de Saussure's linguistic theory with emphasis on the most crucial terms. In addition, his own work is put into context of literary analysis and the subsequent impact on literary studies. Therefore, the thesis also mentions a structuralist framework created by Northrop Frye, who helped to define structuralism as a literary theory. Consequently, Frye's requirement for an objective and rational approach in structural analysis of literature is set as a point of view in this thesis. Particularly, the thesis aims at systematic and most objective description and all interpretations and evaluations are supported by the theoretical background and evidence from analysed texts. In general, the structural approach is used for the analysis of narrative's meaning. Specifically, it is used in order to illustrate the way

in which science works as parole and helps to constitute and facilitate the meaning of a whole narrative.

For that reason, basic information about the Gothic is included in the next chapter in order to provide complete context. The chapter presents origins of the Gothic in Romanticism and, subsequently, describes individual features of gothic fiction, for example, supernatural elements, very often a setting connected to Medieval times, feelings of isolation, the presence of a monster, and most importantly the fact that the Gothic is directly connected to various fears existing in a society. In effect, chapters' analytical parts are based on the premise that the Gothic, in all time-periods and cultural settings, incorporates the sources of a society's fear. Therefore, every gothic work shows what used to scare people. Simultaneously, the theoretical background is immediately accompanied with examples from gothic fiction to illustrate possible variations of each individual feature, which leads to the presence of science as a possible source of fear. The following chapters deal with this theme in a great detail.

Firstly, there is a chapter on the coexistence of science and religion in the Gothic, which illustrates the position of science in Victorian Britain, which experienced a transition from a society driven by religion to a society starting to be influenced by agnosticism and new secular insights accompanying scienc jise. Then, the thesis applies Northrop Frye's theory of archetypes in analysing the character of an irresponsible scientist and his counterbalance. Specifically, the chapter on the archetype of an irresponsible scientist shows a possible inspiration in folklore and also the way in which a scientist's initial ambition gradually takes another direction leading to a disaster. In contrast, the next chapter presents a counterbalance. It is usually represented by a scientist advocating for a completely different approach which illustrates a binary opposition emphasizing the good and the bad in a narrative. Lastly, there are monsters. This chapter links individual monsters from each novel with specific scientific disciplines, lecturers, theories and practices typical for the 19th century, which puts name to possible sources of fear existing in Victorian Britain.

Structuralism as a Literary Theory

The movement called structuralism, which is based on Ferdinand de Saussure's linguistic theory introduced in *Course in General Linguistics*, brought a new understanding of language and subsequently the creation of the structural linguistics resulting from his statement that language is a system.[1] In the following decades, especially in the 1960s, its impact reached even other fields of humanities including literature, which attempted to apply Saussure's structural insights.[2] Even though scholars noticed a certain degree of inadequacies and to a certain degree questioned some of Saussure's formulations, still, they acknowledged that his linguistic theory and its subsequent discussion contributed to the development of other humanistic disciplines.[3] Especially literary critics argued that since the main device of literature is language, accordingly, literature is governed by deep structures as well.[4] Therefore, the theoretical framework of literary structuralism adopted a large number of Saussure's terminology and methodology. To focus on the fundamental part of his theory, Saussure's main terms and concepts which were incorporated into the literary theory of structuralism are *signifier* and *signified*, *langue* and *parole*, and *difference* – specifically, *binary oppositions*.

To begin with, Saussure stated that a word is a linguistic sign consisting of signifier and signified. Signifier stands for a sound, while signified stands for the object it refers to, and when those two concepts are linked together, the actual word emerges. Nevertheless, that link between signifier and signified is arbitrary, therefore the meaning of words is a social convention.[5] In other words, there is no connection between sounds people utter and objects they refer to, unless everyone involved in the communication has agreed accordingly. For example, if we take names from gothic fiction novels – Dracula, Frankenstein and Dr Jekyll and Mr Hyde, their interpretation varies depending on readers' knowledge of source language. Starting with Dracula, readers might perceive it only as a foreign-sounding name, nevertheless, only those aware of its Romanian translation, meaning 'son of dragon'[6], might associate it with the corresponding characteristics from folklore and historical facts and, consequently, expect

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[1] Carol Sanders, *The Cambridge Companion to Saussure* (Cambridge University Press, 2006), 59.
[2] Terry Eagleton, *Literary Theory: An Introduction* (Malden: Blackwell Publishing, 2005),84.
[3] David Ingram, *Critical Theory to Structuralism: Philosophy, Politics, and the Human Sciences* (London: Routledge, 2014), 235.
[4] Patrick M. Scanlon, "Reading Fiction with Structur(alism)e," The English Journal 75, no. 6 (October 1986): 57.
[5] Lois Tyson, *Critical Theory Today: A User-friendly Guide* (Abingdon: Routledge, 2006), 213-214.
[6] „Dracula," Online Etymology Dictionary, accessed November 15, 2018, https://www.etymonline.com/word/Dracula#etymonline_v_15869.

specific behaviour, plot twists and fully participate in the reading. For those readers, Dracula is a name carrying its own meaning and could be given only to a specific type of villain who fulfils the definition of a monster-like enemy connected to vampirism. Similarly, the name Victor Frankenstein has gained its own specific meaning. It might either denote a mad scientist or a hideous monster – the later is caused by the absence of the monster's actual name. In both cases, the name evokes certain connotations. For example, the American fantasy-horror TV show *Grimm* in one of its episodes introduced a character named Victor Shelley. The character's name itself provides a hint of the episode's plot and the audience was not surprised when it came out that Victor Shelley is a scientist working on a project aiming at reanimating dead tissue. And lastly, only English-speaking readers may notice, for example, the similarity between the sound of 'Mr Hyde' and 'hide' and make the connection with Dr Jekyll's hidden secret. In addition, as in the previous cases, comparing a situation to the Dr Jekyll and Mr Hyde relationship is understandable only to those who possess required literary knowledge and thus, both participants in the communication have agreed on the meaning of the expression.

Turning to the term *la langue*, Saussure defined it by using a French word due to semantic reasons, as Claudine Normand clarifies:

> More problematic in English, however, is the term 'language' itself since it does not differentiate, as Saussure did, between *le langage*, *une langue*, *la parole* and *la langue*. For Saussure *le langage* refers to the general human faculty of language. *Une langue* refers to any particular language. […] *La parole* refers to a particular utterance. […] *La langue*, however, is a new technical term developed by Saussure. […] With *la langue* Saussure is seeking to name an entity distinct from the general faculty, *le langage*. […] In fact, nobody had previously felt it necessary to use two different terms to distinguish between language in the sense of a particular language in a given society and language as a general human ability.[1]

In simple words, *la langue* stands for rules and structures on which a language is based, while *la parole* stands for the seemingly countless number of variations of each specific langue. In linguistic terms, langue could be defined, for example, as a rule of a word order pattern, such as 'subject – verb – object', and parole as a variation of sentences with different items, such as 'Dracula drinks blood' or 'Frankenstein built a man'. To transfer it into the literary theory, langue could be defined, for example, as a rule that every story requires a villain and parole

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[1] Sanders, *The Cambridge Companion to Saussure,* 89

could be the list of specific characters, for example, Sauron, Voldemort, Darth Vader, Heathcliff, Gargamel and even Team Rocket.

With regard to protagonists and antagonists, another one of Saussure's concepts contributes to deep structures and that is *difference* – which is the basis for *binary oppositions*. In short, Saussure states that since language is a system of signs, each sign has its meaning not because of 'the sign itself', but because it is different from other signs.[1] For example, we know that the word 'black' means black colour because we have agreed that this concept of colour is phonetically and morphologically realized as 'black' and not 'plack' or 'mlack'. Subsequently, *difference* is emphasized in binary oppositions, as Lois Tyson illustrates: "According to structuralism, the human mind perceives difference most readily in terms of opposites […]: two ideas, directly opposed, each of which we understand by means of its opposition to the other."[2] Examples of binary oppositions could be traced in the analysed novels. For instance, while Victor Frankenstein created life, its creation, on the other hand, brings death to other people. Similarly, in *Dracula* Van Helsing uses transfusion to supply Lucy Westenra with blood and Dracula sucks it out. Additionally, the setting of wild, rural, frozen-in-time Transylvania is in opposition to crowded, cosmopolitan, modern England. And lastly, the main foundation of the relationship between Dr Jekyll and Mr Hyde is based on the direct opposition between the good and the evil. Furthermore, it is important to note that governing structures based on difference contribute to our ability to exist and orient ourselves in the world. The reason for this condition is the fact that the world around us is full of stimuli and information, therefore, the human mind needs a selecting and classifying filter in order to feel secure.[3]

Isaac Asimov's sci-fi short story *Nightfall* might provide a clarification due to its depiction of astronomical realities. Firstly, the meaning of words 'day' and 'sun' are clear, because they are in direct opposition with 'night' and 'moon'. A reader has this rule, this structure, in his mind and, therefore, he feels secure. Nevertheless, *Nightfall* presents a society existing on a planet with multiple suns. Simultaneously, as an eclipse is approaching, the panic gradually grows, since the inhabitants have no real notion of the word 'night'. They only imagine it as a cave without sunlight and, for example, a moon does not even have its own word, it is a 'nonluminous planetary body'. There is only a vague and foreshadowing legend saying that once night comes,

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[1] Eagleton, *Literary Theory: An Introduction*, 84.
[2] Tyson, *Critical Theory Today: A User-friendly Guide*, 213.
[3] Tyson, *Critical Theory Today: A User-friendly Guide*, 213.

stars will bring madness. Furthermore, they cannot even imagine what 'stars' are and associate them with objects they already know from daylight and try to put it into structures they have. As a result, the inhabitants' notion of stars is 'a supernatural power devouring soul and sanity'. And finally, once the eclipse happens and night and stars occur, the inhabitants' known world, the structures in their minds, is completely crushed and they become insane. This example shows that every human mind is governed by deep structures, which may vary in dependence on culture, and are often realized via language. As a result, speakers feel secure as long as they are able to name the world around them, for it is a marker of a comprehension and not a threat.

Apart from Saussure's terminology, it is also crucial to formulate what is a structuralist activity when applied to literature. First of all, structuralism in general identifies structures and relationships in which our mind works and, in addition, attempts to deliver this analysis via objective and scientific method.[1] Therefore, structuralism does not attempt to interpret literary works or distinguish 'good' and 'bad' literature in any way.[2] Instead, structuralism seeks, via analytical rather than evaluative method, to uncover and isolate deep structures that are incorporated within a story with the function of facilitating a narrative in order to make sense and have a meaning.[3] To illustrate, the structuralist analysis of, for example, political satire will not delve into the matter of invectives and irony in order to interpret why an author dislikes a particular politician or a party, but, on the other hand, will examine what strategy of irony an author uses, what outcome he tries to capture and whether such a narrative carries resemblance to any other literary works from the same genre. In general, content is not the primary focus in a structuralist analysis, as Terry Eagleton explains:

> What is notable about this kind of analysis is that, like Formalism, it brackets off the actual content of the story and concentrates entirely on the form. You could replace father and son, pit and sun, with entirely different elements mother and daughter, bird and mole - and still have the same story. As long as the structure of relations between the units is preserved, it does not matter which items you select.[4]

In other words, literary structuralism does not regard a literary work as an arrangement of particular words and sentences, but as an arrangement of frequently recurring and underlying structures on a much deeper level that help to constitute the meaning of the whole narrative.

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[1] Wilfred L. Guerin, Earle Labor, Lee Morgan, Jeanne C. Reesman, and John R. Willingham, *A Handbook of Critical Approaches to Literature* (New York: Oxford University Press, 2005), 368–369.
[2] Tyson, *Critical Theory Today: A User-friendly Guide*, 220.
[3] Eagleton, *Literary Theory: An Introduction*, 83.
[4] Eagleton, *Literary Theory: An Introduction*, 83.

The first clear and methodological attempt to analyse literature from the structuralist point of view could be traced back to Saussure. As Peter Wunderli states, Saussure examined an Indo-European poetry and searched for anagrammatical components that would function similarly as language phenomena. Unfortunately, his theory of anagrams was not confirmed. Nevertheless, once his work had been published, it was immediately accepted by French literary theorists and, consequently, Saussure posthumously contributed to literary studies.[1]

Whereas Saussure did not fully discover deep structures in literature, other scholars were more successful. A large number of literary structuralists defined their own frameworks, such as Vladimir Propp, A. J. Gremais and Northrop Frye and each one of them analysed literature differently with their own approaches. For the purpose of this thesis, Northrop Frye is the most relevant literary critic. Concerning mainly literary genres, Northrop Frye introduced a rather scientific approach towards literature, which completely abandoned the matter of interpretation.[2] Frye in his essays created a literary framework full of detailed and interrelated laws, which Terry Eagleton summarizes: "These laws were the various modes, archetypes, myths and genres by which all literary works were structured. At the root of all literature lay four 'narrative categories', the comic, romantic, tragic and ironic, which could be seen to correspond respectively to the four mythoi of spring, summer, autumn and winter."[3] All of those mythoi are connected, as is apparent, to the cycle of nature and represent the analogous move from the realm of innocence to the realm of experience.[4]

This approach bears the name *archetypal criticism* since a significant portion of Frye's theoretical framework is centred around the matter of archetypes in literature. For instance, he treats symbols and images in relation to the context in which they appear – specifically, symbols, according to Frye, undergo different interpretations depending on the type of a world and whether they are used in comic or tragic vision.[5] Of course, such a type of criticism is accompanied with its own specific limitations. For example, in terms of mythological approach, this framework might not be useful for all literary works, since it disregards non-Western

[1] Sanders, *The Cambridge Companion to Saussure*,174.
[2] Chris Baldick, *Criticism and Literary Theory 1890 to the Present* (New York: Routledge, 2013), 167.
[3] Eagleton, *Literary Theory: An Introduction*, 79-80.
[4] Northrop Frye, *Anatomy of Criticism: Four Essays* (Princeton: Princeton University Press, 2000), 158.
[5] Northrop Frye, "The Archetypes of Literature," *The Kenyon Review* 13, no. 1 (Winter 1951): 108-110.

cultural specifications due to its basis being mainly on European mythologies.[1] But still, all mythologies and folklore all around the globe share similar patterns and certain images, which recur regardless of time and place, therefore, archetypal criticism in general studies universal structures in literary production.[2]

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[1] Guerin et al., *A Handbook of Critical Approaches to Literature*, 218.
[2] Guerin et al., *A Handbook of Critical Approaches to Literature*, 184.

Gothic Fiction in Context

Just like Northrop Frye's Theory of Archetypes is based on pre-urban images of natural cycles and the reminiscence of a history before industrialism[1], similarly, gothic fiction and the whole Romantic movement in general might be interpreted as a part of the same pattern which idealizes the past. Even though scholars have not agreed upon one unifying definition of Romanticism[2], still, the historical background could be defined.

Romanticism as a movement emerged in the era of great changes including the immense process of enclosure, a massive population boom and especially the rapid shift from agrarian Britain towards the transformation into the urban one as a result of the Industrial Revolution.[3] In addition, the British culture and society was under the influence of neo-classicism as a result of the Age of Enlightenment with its strong emphasis on universality, rationality and scientific objectivity.[4] Consequently, not all artists and intelligentsia were satisfied and considered the neo-classical obsession with rationalism, traditionalism, and formal harmony as limiting.[5] Therefore, Romanticism almost idealizes the opposite of reason – subjectivity, imagination, and emotion – which became the basis for Romantic aesthetics and was considered the ruling principle of the whole movement.[6] Hence, Romantics distinguished themselves and attacked constraints of the Enlightenment.[7] Nevertheless, it is still difficult to precisely formulate a clear and general definition of Romanticism since, as Edwin Berry Burgum explains, broad definitions are too vague and sharp definitions are too inadequate with only highlights of partial aspects like an emphasis on ego, nature, return to medievalism and an escape from reality.[8]

Apart from Romanticism itself, the Gothic was a profoundly popular genre throughout the Romantic period. Even though gothic fiction gradually developed its own distinctive characteristics, the early gothic production was called 'romances', since the term 'gothic' was

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[1] Eagleton, *Literary Theory: An Introduction*, 81.
[2] Edwin Berry Burgum, "Romanticism," *The Kenyon Review* 3, no. 4 (Autumn 1941): 479.
[3] Paul Poplawski, *English Literature in Context* (Cambridge: Cambridge University Press, 2008), 311-315.
[4] Philip M. Soergel, *Arts & Humanities Through the Eras* (Detroit: Thomson/Gale, 2005), 304.
[5] Lilian R. Furst, "Romanticism in Historical Perspective," *Comparative Literature Studies* 5, no. 2 (June 1968): 116.
[6] Furst, "Romanticism in Historical Perspective," 116.
[7] Stuart Curran, *The Cambridge Companion to British Romanticism* (Cambridge: Cambridge University Press, 2003), 26.
[8] Burgum, "Romanticism," 480.

rarely used and it is primarily a twentieth-century label.[1] Furthermore, the Romantics' attitude and relationship with gothic fiction was complicated, as Michael Gamer illustrates:

> While gothic's contentious reception constituted it as a conspicuously 'low' form against which romantic writers could oppose themselves, its immense popularity, economic promise, and sensational subject matter made this opposition a complex and ultimately conflicted and duplicitous endeavor. It is no accident that a considerable amount of early-nineteenth-century writing explicitly denies (or otherwise deflects) its association with the gothic at its moments of closest kinship.[2]

In other words, Romantic authors did not want to be associated with gothic fiction as it was regarded as a rather 'low' cultural production aimed at unthinking masses with bad taste.[3] Nevertheless, writings belonging to the gothic genre were extremely popular.[4]

The first great novel that carries the label 'Gothic' is considered to be *The Castle of Otranto* by Horace Walpole from 1764.[5] The novel set the first notion of the term, which was specific for its time-period:

> The term had come to symbolise the 'medieval' or the 'Dark Ages' prior to the Reformation and the Scientific Revolution, denoting that which was barbaric, disordered, irregular. In the mid-eighteenth century there appeared a number of works idealising medieval culture and architecture in opposition to neo-classical form and design. The irregularity of the medieval cathedral or garden came to be prized above neo-classical Palladian architecture, and the ruin, whether real or faked, became a source of aesthetic delight.[6]

In simple terms, the Gothic in accordance with Romanticism delved into the idealisation of the medieval past, but it also differed since Gothic writers decided to explore the 'dark' side of human nature, the one associated with terror and the scale of emotions connected with fear.

Accordingly, the main features of the gothic genre consist of elements which induce terror and unpleasant feelings. Jerrold E. Hogle provides a list of possible gothic settings, for example an antiquated place, usually in the form of a medieval castle, an abbey, a prison, a crypt, a

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[1] Jerrold E. Hogle, *The Cambridge Companion to Gothic Fiction* (Cambridge: Cambridge University Press, 2002), 21-22.
[2] Michael Gamer, *Romanticism and the Gothic: Genre, Reception, and Canon Formation* (Cambridge: Cambridge University Press, 2004), 7.
[3] Hogle, *The Cambridge Companion to Gothic Fiction*, 91.
[4] Poplawski, *English Literature in Context*, 345.
[5] Duncan Heath and Judy Boreham, *Introducing Romanticism* (Cambridge: Icon Books Ltd., 2002), 17.
[6] Poplawski, *English Literature in Context*, 331.

graveyard, a laboratory, an old house and basically any type of a place or a building that can be associated with the past, decay and the condition of being isolated. Moreover, every gothic setting should include some kind of a secret related to the past, which haunts the characters either psychologically or physically in the form of ghosts, spectres and monsters.[1]

For instance, Bram Stoker's *Dracula* takes place in a remote and for British readership perhaps even unknown country Transylvania in an isolated medieval dwelling. In addition, Count Dracula's castle serves also as a prison and all his attributes are linked to ancient times and decay. Similarly, Robert Luis Stevenson's *Strange Case of Dr Jekyll and Mr Hyde* works with a theme of a private secret which gradually destroys the main protagonist and is realized via the presence of a monster that cannot be cast away. Also, Mary Shelley's *Frankenstein* is centred around the theme of a monster that has been artificially created and later on starts to haunt its creator and all his beloved ones. Moreover, even writings by Edgar Allan Poe and Nathaniel Hawthorne include elements from the list mentioned above. Even though their setting is American, therefore, no ancient ruins and abbeys could be found there, still, their tales contain haunted places, either by a real ghost or a hallucination in the mind of a protagonist, and often humans playing the role of a monster.

The provided examples show how gothic novels operate with supernatural elements and also under what conditions ghosts and monsters are credible for readership. Furthermore, Jerrold E. Hogle describes the relationship between the world of supernatural and the world of reality:

> It is at this level that Gothic fictions generally play with and oscillate between the earthly laws of conventional reality and the possibilities of the supernatural […] often siding with one of these over the other in the end, but usually raising the possibility that the boundaries between these may have been crossed, at least psychologically but also physically or both.[2]

In other words, the gothic genre with its capability to go 'beyond the real' can bend the boundaries between both worlds and, in addition, may even choose what source of fear works best for an individual narrative. Therefore, there might be distinguishing between inducing terror and horror. The distinction is based on Ann Radcliffe's statement that both are basically opposites, the first awakening to life and the other freezing the soul, which is further understood

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[1] Hogle, *The Cambridge Companion to Gothic Fiction*, 2.
[2] Hogle, *The Cambridge Companion to Gothic Fiction*, 2-3.

in a way that terror is associated with the fear of a physical danger, while horror works with abstract and sublime threats.[1]

To illustrate, *The Pit and the Pendulum* by Edgar Allan Poe is a narrative built on terror. In this tale, the main protagonist is a victim of Spanish Inquisition, therefore, the antagonist is not some spectre, ghost or any other supernatural creature, but a human. Moreover, the actual source of fear is not abstract – no ghost nor a hallucination – and is delivered via the means of a number of objects. For example, the victim is afraid of the pit in the centre of his cell, rats, the swaying pendulum and scorching walls. In overall, the victim is always pushed into some kind of action, presumably pumping adrenalin into his veins and keeping his senses on guard. On the other hand, another Poe's short story *The Masque of the Red Death* could be understood as a representative of horror. Although the general source of fear is a pestilence, the main antagonist in the narrative is a spectre embodying the disease. Therefore, it stops any characters' movement by its presence and causes them moments of being unable to move. In summary, the Gothic provides its readership with an experience of both physical terror and abstract horror, which is produced by putting the story in the historical context which is relatable to its time period in order to create a credible source of fear.

However, the capability to produce a credible narrative had also been the subject of complaints and attacks. L. Andrew Cooper puts gothic fiction into the historical context of a society driven by Enlightenment philosophies and illustrates concerns about the Gothic:

> Fictions that depict the horrible might enable impressionable people to enact the horrible. The philosophy of Locke and his successors grants literature the power to communicate ideas that cause things to happen in the real world. Literature dedicated to the expression of horrifying ideas might cause – and be responsible for – horrifying realities. Gothic fictions might even have the power to kill.[2]

Moreover, such a claim led to the conviction that readers of gothic novels, especially the youth, would not obtain a literary instruction for proper functioning in the real world, would rebel against parental authority and thus, the society would crumble.[3] To be specific, the 18th and 19th century scholars were probably afraid that the youth and allegedly oversensitive individuals

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[1] Mark M. Hennelly, Jr., "Framing the Gothic: From Pillar to Post-Structuralism," *College Literature* 28, no. 3 (Fall 2001): 69.

[2] L. Andrew Cooper, *Gothic Realities: The Impact of Horror Fiction on Modern Culture* (Jefferson: McFarland & Company Incorporated, 2010), 32.

[3] Cooper, *Gothic Realities: The Impact of Horror Fiction on Modern Culture*, 41-42.

might interpret their own situation at home in terms of a gothic tale and perceive their parents or any other authorial figure as a monster against whom one must fight.

Apart from the monster-victim relationship, the presence of science and some form of a rationality is also one of the features of gothic fiction. For example, Shelley's *Frankenstein* is, by some academics, considered the first notable science fiction novel along with authors like Edgar Allan Poe and Nathaniel Hawthorne, who are considered pioneers of science fiction genre.[1] Besides, some gothic novels combine a supernatural element with the scientific accuracy. Apart from *Frankenstein* and its scientific exploration of anatomy and the possibility of creating an artificial human being, *Strange Case of Dr Jekyll and Mr Hyde* by Robert Louis Stevenson explicitly uses a scientist as its protagonist. Furthermore, the source of fear is tied with Dr Jekyll's laboratory, which only enhances the scientific context.

Therefore, the Gothic laid foundations for science-fiction. The relation between both is explained by Patrick Brantlinger:

> Both genres involve the idea that reason taken to extremes 'produces monsters'. In the Gothic romance, extreme reason may take the form of revolutionary or religious fanaticism, though it is more often dissociated from social context and related to individual madness. In science fiction, extreme reason takes the form of science itself and of its chief manifestation, technology. The subjective imagery of lunacy and nightmare becomes the imagery of the external world of machines and mass society.[2]

Thus, while the subsequent science-fiction uses the fear of distant future and collective madness, the Gothic manipulates with the fear connected to the past and madness of individual characters.

To combine it with the structuralist viewpoint, science might be perceived as one of the structures in the Gothic. Therefore, if science is used as *parole* in gothic fiction, it helps to communicate a certain message which an author, either consciously or subconsciously, wanted to deliver to his readership. In a larger perspective, *langue* of gothic genre could be described as follows:

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[1] Patrick Brantlinger, "The Gothic Origins of Science Fiction," *NOVEL: A Forum on Fiction* 14, no. 1 (Autumn 1980): 31-32.
[2] Brantlinger, "The Gothic Origins of Science Fiction," 31.

Most critics, nonetheless, have found it useful to retain an understanding of Gothic as a transhistorical genre. Its plot elements and setting may change, but its plots still remain exorbitant, piling incident upon incident for its own sake, and its settings are still overcharged with a fearsome and brooding atmosphere. The nature of social transgression may differ from one era to another, and clinical understandings of mental disorder shift as well, but the Gothic still shows a fascination with extreme behaviors and derangements of human subjectivity. […] The Gothic is rightly, if partially, understood as a cyclical genre that reemerges in times of cultural stress in order to negotiate anxieties for its readership by working through them in displaced (sometimes supernaturalized) form.[1]

In other words, one of *langues* of the Gothic is communicating widespread fear and anxiety due to a current situation in a society or the world. Metaphorically, the gothic genre could be understood as a mirror showing current distress in a society and, as every mirror does, that distress is presented in a twisted and rather 'unrealistic' form in order to provide readers with the possibility, via the means of displacement, to cope with the problem in politics, economics, culture and other areas that might influence the whole society.

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[1] Hogle, *The Cambridge Companion to Gothic Fiction*, 193-195.

Parole of Science and Religion Coexistence

The roots of the Gothic in Romanticism and its ever-present supernatural features and motives may give rise to a question why science became one of the incorporated topics. The question has already been partially answered in the previous chapter and is even more clarified by Matthew M. Reeve: "'Gothic' has been reimagined by each generation. Referencing temporal and formal referents, the term has proven to be remarkably capable of assuming a range of meanings specific to the political, aesthetic, intellectual contexts of a particular period."[1] In other words, the Gothic managed to adapt not only to a new time-period, but also to a new audience with completely different sources of fear. In effect, this ability enabled the Gothic to react to the Victorian era. To be specific, gothic fiction produced in the 19th century reacts to the reign of Queen Victoria which is notable not only for an immense professional scientific exploration and development, but also for the general public's tremendous interest in various fields and disciplines of science.[2]

This spread of scientific knowledge was partially achieved by "popularizers". These authors used the "narrative of nature" in their literary production, which is further explained by B. Lightman:

> The features of the 'narrative of nature' allow the popular science writer to make science accessible to a popular audience. Here it is the plant, the animal, and the fascinations of the natural world, not the activity of the scientist, which are the focus. […] Animals are […] sometimes even anthropomorphosized. The chronological, past-tense narrative allows an exciting story to be told to the reader as they follow the activities of plants or animals.[3]

That is to say, scientific theories and information were delivered by a popularizer who served as a mediator between educated specialists and the general public. As a result, the general public must have had at least basic notions about the current progress in science. And even though there was certain criticism from professional scientists, still, popularizers managed to address and shape the understanding of science of the public more effectively, because, unlike scientists,

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[1] Matthew M. Reeve, "Gothic," *Studies in Iconography* 33, Special Issue Medieval Art History Today – Critical Terms (2012): 234.
[2] Barbara T. Gates, "Introduction: Why Victorian Natural History?," *Victorian Literature and Culture* 35, no. 2 (2007): 539.
[3] Bernard Lightman, "The Story of Nature: Victorian Popularizers and Scientific Narrative," *Victorian Review* 25, no. 2 (Winter 2000): 5.

they knew their audience better and their exciting stories and visuals were much more entertaining.[1]

However, it would be incorrect to assume that the Victorian era meant an unlimited scientific progress without any kind of criticism from the British society. In fact, science appeared to be in clash with religion and even that statement is only a simplification of the relationship. Actually, science was undergoing the process of its own self-determination in the 19th century[2] and that process involved different groups of people. In general, the conflict took place not only between scientists and religious people, but also between agnostic/atheist scientists and religious scientists whose opinions differed in questions of science-religion coexistence and whether, or to what degree, scientific theories should or should not be influenced by religion.[3]

At the beginning, openly Christian scientists wanted to use science in order to prove the existence of God. Their premise was that "the discoveries of natural science were proof of the wisdom and power of a divine creation"[4] which meant that every discovery and achievement was interpreted as a principle which was used by God to create and still control the world. However, such an interpretation was opposed. The dispute escalated during the debate between Darwinist Thomas Henry Huxley and the Bishop of Oxford, Samuel Wilberforce, in 1860, which resulted in the newly coined term "agnostic".[5]

Simultaneously, science started to undergo the process of professionalization. Scientists, or "scientific naturalists" as they called themselves, allowed in formulating their theories and methods nothing else than what could have been observable in nature, for example the atomic theory of matter, the theory of conservation of energy and the theory of evolution. In addition, as Huxley argued, "good science" was based only on empirical research, which guarantees social and occupational independence, while "bad science" allowed religious interferences, therefore, the Bible should not be taken into account.[6] This debate on professionalization of science brought a dispute within the scientific community. As Frank M. Turner notes, those

[1] Bernard Lightman, "Victorian Sciences and Religions: Discordant Harmonies," *Osiris* 16, Science in Theistic Contexts: Cognitive Dimensions (2001): 356.
[2] Frank M. Turner, "The Victorian Conflict between Science and Religion: A Professional Dimension," *Isis* 69, no. 3 (September 1978): 358.
[3] Lightman, "Victorian Sciences and Religions: Discordant Harmonies," 344.
[4] Gates, "Introduction: Why Victorian Natural History?," 541.
[5] Poplawski, *English Literature in Context*, 471.
[6] Lightman, "Victorian Sciences and Religions: Discordant Harmonies," 345-347.

advocating for an empirical basis of science were in conflict with not only the supporters of organized religions, who wanted to keep control over education, but also with the religiously oriented part of scientific community.[1] As a result, the Victorian era is described as a time-period in which science and religion entered a war, according to some scholars.[2]

Nevertheless, it would be incorrect to dismiss that period simply as a conflict between "believers" and "non-believers". In fact, there was an observation that science and religion do not have to be in a dispute and the real clash is between science and theology. The argument is that religion is strongly situated in human nature, while science and theology as well belong to the realm of intellect. Therefore, since theology and especially natural theology, a discipline using scientific methods to prove the theory of creation, was regarded as a subdivision of science, it is supposedly a nonsense to draw religion into the quarrel.[3]

To conclude, popularizers managed to deliver scientific topics to the reading audience. The gap between highly elaborated theories and readership was gradually reduced. Therefore, such a situation had probably caused that many scientific theories entered the general public's awareness. In addition, the product of clash between science and religion – agnosticism – provided a new bridge between the rather irrational Gothic and the realm of rational science. In other words, agnosticism, which is in an immensely oversimplified manner described as a standpoint between "believers" and "non-believers", serves as a link between the supernatural and "normal reality". Due to this fact, the Gothic could have incorporated scientific themes, tools and theories into its discourse while still maintaining all its spiritual elements.

In effect, the described combination of these two points of views results in a new structure present in gothic fiction since the 19th century. This new structure might be described as a *mutual completion of religion and science*. To be specific, that completion uses elements from both scientific theories and religion in order to discuss a topic characteristic for the current time-period while providing the point of view of both. It is usually either used to open a discussion on morality or to react to the underlying fear in society. Not surprisingly, both cases are always in some way connected to technological progress. In simple terms, this structure is used to support a narrative by combining religious and scientific perspectives. Furthermore, it always

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[1] Turner, "The Victorian Conflict between Science and Religion: A Professional Dimension," 364.
[2] Lightman, "Victorian Sciences and Religions: Discordant Harmonies," 344.
[3] Lightman, "Victorian Sciences and Religions: Discordant Harmonies," 345.

serves as an author's tool for delivering a message he or she wants to communicate. And more importantly, it does not matter whether that message functions as criticism or as praise, because the main purpose of using this combination is not to evaluate the clash between science and religion, but to use it as a discussion opener.

The example of opening discussion on morality is Mary Shelley's *Frankenstein*. As it had already been observed by other scholars, *Frankenstein* is not only about infusing fear, but also about studying and questioning human nature in relation to a society.[1] In order to do so, the novel is filled with many explicit and implicit references to the Bible and religion in general. The subject of merging religion and science could be found in the animation of Frankenstein's monster:

> His limbs were in proportion, and I had selected his features as beautiful. Beautiful! Great God! His yellow skin scarcely covered the work of muscles and arteries beneath; his hair was of a lustrous black, and flowing; his teeth of a pearly whiteness; but these luxuriances only formed a more horrid contrast with his watery eyes, that seemed almost of the same colour as the dun-white sockets in which they were set, his shrivelled complexion and straight black lips.[2]

This passage provides a general idea about Frankenstein's process of creating his monster. Even though it does not contain any technical explanation and methodological details, still, it provides an insight into Frankenstein's mind when he commenced his work. Apparently, he wanted to create a perfect and beautiful man. The reason for doing so is more or less open for debate. It could have been the wish to defy death inspired by his mother's passing or the wish to come up with a revolutionary discovery, which would be in accordance with his professional ambitions. Or maybe even something else. Either way, the result would be the same in all cases. Nevertheless, the passage mentioned above clearly and undoubtedly shows the description of chosen "material", which constitutes a possible parallel with the story from the Bible in which God created the first man Adam and made him in his image. Similarly, Frankenstein wanted to make his own man perfect. However, there is a problem with that plan since perfection in terms of God's doing is something else than Frankenstein's idea of perfection. Frankenstein's notion of an ideal human body is not of divine origin, but it is only his opinion shaped by society, culture and his own experience. Therefore, his attempt is already doomed. Even though he

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[1] David H. Richter "Gothic Fantasia: The Monsters and the Myths a Review-article." *The Eighteenth Century* 28, no. 2 (Spring 1987): 152.
[2] Mary Shelley, *Frankenstein* (New York: Signet Classics, 1978), 55.

selected the parts of the body with precision and belief that such a composition must guarantee a beautiful being. Still, the result is the opposite. But what is important is that the horrible outcome might be interpreted in two ways.

Firstly, a religious reader might understand Frankenstein's effort as a religious issue. The core of this religious interpretation would probably be that the hideous creature had always been an inevitable result. It might be based on an analogy that if God, the embodiment of perfection, created a man who gradually appeared to be flawed and corrupted, than what could have Victor Frankenstein expected when he, already a flawed being, tried to create his own man in his own image. This interpretation was probably Shelley's intention because Frankenstein's monster itself proclaimed: "Accursed creator! […] God, in pity, made man beautiful and alluring, after his own image; but my form is a filthy type of yours, more horrid even from the very resemblance."[1] Even the monster itself was aware of the condition that, simply, an already corrupted human being can produce only even more corrupted creature.

Secondly, a reader more inclined to atheism and agnosticism might interpret the passage with the help of science. Frankenstein's task might be understood simply as a secret and ethically dubious experiment conducted with the intention to make a ground-breaking discovery. Of course, the allusion to the Bible creates the theme of a "scientist playing God". Nevertheless, in this interpretation the presented issue deals not so much with morality in relation to Christian values, but with morality in relation to power, pushing boundaries of the impossible and the impact of wild and uncontrolled experiments. In this interpretation the horrible result does not carry any special spiritual meaning, instead, it is viewed as an unexpected turn showing flaws of Frankenstein's and possibly even other scientists' theories. Simply, Frankenstein's creature is just a fatal mistake, a result of an experiment which went wrong.

Either way, both interpretations are not mutually exclusive but, on the contrary, they fit together. More importantly, scientific progress and achievements are essential and provide Mary Shelley with a tool for opening a discussion on moral issues connected to the events of the 19th century. Of course, Shelley could have written a novel that would contain only references to the Bible and the role of a monster would be played by a human villain or a demon. Nevertheless, such a narrative not based on a scientific experiment would probably not have

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[1] Shelley, *Frankenstein*, 130.

been so thrilling and definitely not so innovative. In addition, it would miss the link to the mindset and possible conscious and unconscious science-related fears existing in the 19th century. Furthermore, just like *Frankenstein* cannot be stripped away of science, it also cannot omit its religious element. The reason is that it would have been considered a type of urban legend about a body-snatcher without any outstanding feature that would easily enable a discussion on human nature.

Therefore, the co-presence of religion and science in the narrative is quite fundamental. Not only does it connect the material world of science and the world of the supernatural, it also opens new possibilities for the author. For example, one of the possible overlaps between the realms of science and religion might be understood in the passage depicting Frankenstein's thoughts about creating a female monster:

> I was now about to form another being of whose dispositions I was alike ignorant; she might become ten thousand times more malignant than her mate and delight, for its own sake, in murder and wretchedness. He had sworn to quit the neighbourhood of man and hide himself in deserts, but she had not; and she, who in all probability was to become a thinking and reasoning animal, might refuse to comply with a compact made before her creation. […] Even if they were to leave Europe and inhabit the deserts of the new world, yet one of the first results of those sympathies for which the daemon thirsted would be children, and a race of devils would be propagated upon the earth who might make the very existence of the species of man a condition precarious and full of terror.[1]

This passage presents a moral dilemma of Victor Frankenstein. When he created the male monster, he was completely unaware of its possible consequences. But now he knows the impact of his experiment. He is forced to take full responsibility for his actions and when presented a task of creating a new female monster, he is able to make a full and thorough reconsideration. And what is more important, his reaction has an impact in two ways. Firstly, he has to consider whether it is morally acceptable to repeat the experiment even if he knows what result it would probably bring. In this case, he has to question his task from the point of view of a scientist and whether his discovery of reanimating dead tissue is worth its possible future benefits. And secondly, he has to count even his responsibility towards mankind and whether he has the right to play God and risk putting the human race into danger. In effect, the combination of religious themes and references together with science creates a gateway for underlying moral issues. The presence of science, in this case an experiment, provides a cause

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[1] Shelley, *Frankenstein*, 165-166.

of action which enables the discussion of morality and the whole debate is presented in an "entertaining" form without attacking one another.

Similarly, *Strange Case of Dr Jekyll and Mr Hyde* by Robert Louis Stevenson uses the same strategy. The novella presents an issue of duality of man's nature consisting of the good and the evil, which is later on presented as Dr Jekyll's contemplation about the morality with focus on Victorian seclusion of private and public life. In order to open such a discussion, Stevenson presents a story based on a scientist who found a way to separate both sides of human nature and physically turn them into two characters.

Subsequently, the novella and its encounters of both sides are accompanied with various religious references, for example, when Mr Hyde is confronted by an angry mob: "I never saw a circle of such hateful faces; and there was the man in the middle, with a kind of black, sneering coolness – frightened too, I could see that – but carrying it off, sir, really like Satan."[1] In this part, Stevenson emphasizes the evil essence of Mr Hyde by comparing him to Satan himself, which is kind of a strong statement for a narrative which is centred around secular science. Moreover, other instances use similar figurative speech elements, as in: "This inexplicable incident […] seemed, like the Babylonian finger on the wall, to be spelling out the letters of my judgment."[2] Together with other occasions and references to Satan and Hell, Stevenson creates a contrast between the good side, represented by civilized and moral Dr Jekyll, and the evil side, delivered via immoral and barbaric Mr Hyde. Simultaneously, the choice of Bible-related words induces a feeling of a coming catastrophe, which is connected to the endangerment of one's soul. In other words, the question of religious dilemma is invoked via the use of language. This strategy of keeping a religious undertone is fully elaborated at the end of the novella when Dr Jekyll presents the event in his own words. Especially the part in which he describes one of his transformations back from Mr Hyde shows the growing impact of religion on him: "The pangs of transformation had not done tearing him, before Henry Jekyll, with streaming tears of gratitude and remorse, had fallen upon his knees and lifted his clasped hands to God."[3] Suddenly, Dr Jekyll is not only a scientist looking for a solution in his abilities and chemical apparatus, he is also an apologetic Christian asking for a help of divine origin. In effect, duality of man's nature is presented as a complex issue which goes beyond the material limits of current

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[1] Robert Louis Stevenson, *Dr. Jekyll and Mr. Hyde* (New York: Signet Classics, 1978), 8.
[2] Stevenson, *Dr. Jekyll and Mr. Hyde*, 66-67.
[3] Stevenson, *Dr. Jekyll and Mr. Hyde*, 69.

scientific expertise and requires also a spiritual insight. And in order to construct such a narrative, both causative science and religious elements are required.

Apart from *Frankenstein* and *Strange Case of Dr Jekyll and Mr Hyde*, Bram Stoker's *Dracula* is also built on a symbiosis between religion and science. However, in this case Stoker used the combination of science and religion as a tool not for introducing moral issues, but rather for depicting the common fear present in Victorian society. The fear of death and, more importantly, the process of dying. Conveniently, the novel is based on a legend about vampires and folklore. Therefore, due to these basic characteristics, the narrative contains the number of references and occasions that might be labelled as religious elements. For example, the first part of the story, which takes place in Transylvania, is filled by rather odd occurrences:

> 'It is the eve of St. George's Day. Do you not know that tonight, when the clock strikes midnight, all the evil things in the world will have full sway?' […] She then rose and dried her eyes, and taking a crucifix from her neck offered it to me. I did not know what to do, for, as an English Churchman, I have been taught to regard such things as in some measure idolatrous. […] She saw, I suppose, the doubt in my face, for she put the rosary round my neck and said, 'For your mother's sake,' and went out of the room.[1]

As it is apparent, *Dracula* works with typical features of gothic fiction, namely with elements of supernatural, superstitions and Catholicism. The reason is that even though the novel portrays a story of a typical Englishman who is a member of the Church of England, still, one of the typical features of gothic genre is the presence of a Catholic influence. As Victoria Nelson observes, whenever a situation in a gothic narrative requires a spiritual force for fighting ghosts and demons, it is usually a Catholic priest, an exorcist, and never any representative of a Protestant church.[2] Therefore, *Dracula* contains features of Catholic church, Protestant church, traditions of pagan origin and even West European men of science. With regard to history and complex relationships between all of those parties, it would be logical to assume that such an arrangement would result in tense rivalries. However, the opposite is true.

For example, the character of Van Helsing shows the way in which religion, folklore and science may work together. Firstly, he is a man of science with myriads of degrees and has specialization in various scientific disciplines. He might perform surgery, transfusion of blood,

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[1] Bram Stoker, *Dracula* (New York: Signet Classics, 1978), 9.
[2] Victoria Nelson*, Gothicka: Vampire Heroes, Human Gods, and the New Supernatural* (Cambridge: Harvard University Press, 2012), 21.

hypnoses and probably even analyses regarding psychology and geology. In other words, he is a type of a specialist whom a reader might associate with a stereotype of a scientist – a technical and rational person obsessed with severe objectivity. However, he has quite immense knowledge of folklore for which he is able to conduct even basic cultural and anthropological analysis. This combination of specializations causes that Van Helsing is a very open-minded person who is not afraid to step outside the official body of knowledge regarding medicine and may without any prejudice look for different solutions.

Consequently, Van Helsing fights the Count Dracula in both scientific and religious ways. The scientific approach is based on a strategy that Van Helsing regards undead, the Nosferatu, as a kind of ancient disease and for that reason he describes symptoms (the loss of blood and bitemarks), the stages of disease (the process of turning undead and being undead), and stating prevention with subsequent treatment. The treatment itself is also scientific and religious. Initially, Van Helsing treats his patient, Miss Lucy Westenra, via blood transfusions and, simultaneously, he complements it with folklore, namely garlic wreath which is known for its antiseptic effects. In addition, Van Helsing even incorporates the Catholic church symbols when destroying Dracula's boxes of Transylvanian earth from a castle tomb:

> 'We must sterilize this earth […] He has chosen this earth because it has been holy. Thus we defeat him with his own weapon, for we make it more holy still. It was sanctified to such use of man, now we sanctify it to God.' […] Taking from his box a piece of the Sacred Wafer he laid it reverently on the earth, and then shutting down the lid began to screw it home. […] One by one we treated in the same way each of the great boxes, and left them as we had found them to all appearance. But in each was a portion of the Host.[1]

Van Helsing's way of destroying Dracula's boxes of earth is based on folklore, the strong belief in God and the use of Catholic items such as Host. However, it also carries a scientific connotation. Stoker's use of vocabulary is interesting for he chose the word 'sterilize', which enhances the fact that the action was done in a systematic way and makes the usage of Catholic symbols seem as if it was an objective tool belonging to complex methodology. In effect, the religious and scientific solution for dealing with the vampiric threat merges in one.

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[1] Stoker, *Dracula*, 332.

Furthermore, the whole vampiric theme stands for an issue which implicitly works with belief in afterlife and the advancement in funeral services. The issue is the Victorian fear of being prematurely buried. As a result of scientific progress, the Victorian era experienced a discovery of states of human body in which it appears dead. Until that period, the absence of pulse and breath were considered to be an affirmation of death, however, the newly described cases of inert bodies brought back to life destroyed such a definition of death and called for new diagnoses.[1] The fear of being prematurely buried was strong. There had even been cases in which people ordered in their last wills, for example, that a needle would be passed through their heart or that their heads would be severed from their bodies in order to absolutely prevent waking up in a grave.[2] In other words, the Victorians were not so afraid of death itself as of the process of dying while being buried in a grave. In addition, the 19th century progress in burial services introduced effective arterial embalming using chemicals, which brought another new unsettling feeling since it created, in Jani Scandura words: "An uncanny corpse that seemed never to die."[3] Therefore, Dracula could be mistaken for an embalmed corpse.[4]

The threat of being prematurely buried could be traced in the case of Lucy Westenra's death. Not only she was buried the very next day, but her non-decomposing body also alluded the strange feeling of an embalmed corpse:

> Van Helsing walked over to Lucy's coffin, and I followed. He bent over and again forced back the leaden flange, and a shock of surprise and dismay shot through me. There lay Lucy, seemingly just as we had seen her the night before her funeral. She was, if possible, more radiantly beautiful than ever, and I could not believe that she was dead. The lips were red, nay redder than before, and on the cheeks was a delicate bloom.[5]

The perfect state of Lucy's body resonates with the already described Victorian fear. First of all, being buried alive and then dying in one's own grave is an utterly terrible idea regardless of one being a believer or an atheist. However, the connection to vampires also additionally provides a possible religious discussion. Firstly, being a vampire postpones death, which prevents a soul from entering the afterlife. Secondly, a non-decomposing dead body might be

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[1] George K. Behlmer, "Grave Doubts: Victorian Medicine, Moral Panic, and the Signs of Death," *Journal of British Studies* 42, no. 2 (April 2003): 215.
[2] Behlmer, "Grave Doubts: Victorian Medicine, Moral Panic, and the Signs of Death," 222.
[3] Jani Scandura, "Deadly Professions: 'Dracula,' Undertakers, and the Embalmed Corpse," *Victorian Studies* 40, no. 1 (Autumn 1996): 12.
[4] Sandy Feinstein, "Dracula and Chloral Chemistry Matters," *Victorian Review* 35, no. 1 (Spring 2009): 101.
[5] Stoker, *Dracula*, 222.

regarded as a contradiction to the Bible reference of turning back into dust. Therefore, *Dracula* might be interpreted as a metaphor for an embalmed undead corpse which induces horror in an audience by combining an appeal on their religious beliefs together with the latest technologies. On one hand, Count Dracula poses a threat to the purity of an eternal soul which, due to being tainted by vampirism, is deprived of the prospect of being admitting to Heaven. Surely, this must have been a horrible idea for a 19th century religious person. And on the other hand, a too-well-preserved corpse, due to achievements in chemistry, might have fed the nightmares about the undead and enhance the "unnatural" character of embalming.

Moreover, the hint of connection between the possibility of premature burial with the issue of a soul was partially made by Victorians themselves. For example, the anti-vivisectionist Anna Kingsford, despite being Catholic, decided to be cremated for she feared to be buried in a trance state.[1] Such an idea corresponds with the movement of Mesmerism. Its founder Franz Anton Mesmer believed that the hypnotic trance served as a tool by which a soul might leave the body and make it seem lifeless.[2] Another mesmerist, Fred Kaplan, compiled a summary of Mesmerism which was put into the context of Victorian mentality based on the premise that "there was a transcendental link between mind and matter."[3] In addition, as had been mentioned, many Christian scientists tried to use science for proving the existence of God. Therefore, many Victorians tried to connect science with the spirit through areas like parapsychology and theosophy.[4] Nevertheless, the term "hypnotism" emerged by 1850, therefore "mesmerism" was mainly used for rather theatrical and not so objective performances.[5]

The instance of using hypnotism is present in *Dracula,* particularly when Mina slowly turns into a vampire:

> 'Go, call the Professor. I want to see him at once.'
> 'Why?' I asked.

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[1] Greg Murrie, "'Death-in-life': curare, restrictionism and abolitionism in Victorian and Edwardian anti-vivisectionist thought," in *Animal Death*, ed. Jay Johnston and Fiona Probyn-Rapsey (Sydney University Press, 2013), 269.

[2] Scandura, "Deadly Professions: 'Dracula,' Undertakers, and the Embalmed Corpse," 13.

[3] Terry M. Parssinen, "Mesmeric Performers," *Victorian Leisure* 21, no. 1 (Autumn 1977): 88.

[4] Rosemary Jann, "Saved by Science? The Mixed Messages of Stoker's Dracula," *Texas Studies in Literature and Language* 31, no. 2 (Summer 1989): 274.

[5] Catherine, Wynne, "Mesmeric Exorcism, Idolatrous Beliefs, and Bloody Rituals: Mesmerism, Catholicism, and Second Sight in Bram Stoker's Fiction." *Victorian Review* 26, no. 1 (2000): 46.

'I have an idea. I suppose it must have come in the night, and matured without my knowing it. He must hypnotize me before the dawn, and then I shall be able to speak.'[1]

The use of hypnosis is crucial for making the mental connection between Dracula and Mina credible. If Bram Stoker lived, for example, during the Middle Ages and wrote *Dracula* in that time, he would have probably explained that connection as a purely supernatural phenomenon, probably magic, and he may have even put it in a religious context as some kind of "devil's luring" of an innocent soul. However, the science of the 19th century provided Stoker a possible "rational" tool. Suddenly, the connection between Dracula and Mina does not sound so unbelievable because it is based on empirical science. In effect, the boundary between the real and the unreal becomes blurred.

In summary, the described Victorian idea that there is a transcendental link between mind and matter does not exclude the religious background but, on the contrary, it further emphasizes the copresence of science and religion. For that reason, Van Helsing's insistence on Catholic symbols becomes required, Victor Frankenstein's creature may ask a question whether it has some sort of a potentially damnable soul and Dr Jekyll's experiments with splitting personality might be viewed as tearing apart one's soul. In all of these cases, the narratives would not be possible without implementing both scientific theories and religious elements.

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[1] Stoker, *Dracula*, 346-347.

Parole of an Irresponsible Scientist

Apart from scientific disciplines themselves, the gothic fiction of the 19th century includes certain archetypal figures. One of them, which is connected to science, is the archetypal figure of a scientist, and specifically, an irresponsible scientist. In accordance with Northrop Frye's claim that a proper rational literary criticism should be objective and without any presumptions about the value of studied objects[1], it is observable that scientists in the Gothic possess similar qualities and functions regardless of any subjective evaluation. Such a situation is possible since, in Frye's definition, an archetype has as little content as possible and functions not as media, but as mediations and communicable symbols.[2] Therefore, archetypal irresponsible scientists may differ greatly in their character background and identity traits, but still, they have the same function in any gothic narrative.

In the general context of literature, actions of an irresponsible scientist might be partially interpreted as an archetypal motif from folklore – namely bargaining with the devil, which is usually connected to the figure of the shadow.[3] Even though a scientist, a rational and secular figure, is hardly ever portrayed in a direct relationship with a devil as in the case of, for example, wizards and alchemists like Faust, still, this archetypal motif might be traced. The degree of Faust's actual influence on the Gothic is debatable. However, the tale of Faust was very popular throughout eras[4] and especially English Romantics focused on "boundless ambitions of the doomed titan."[5] Therefore, the archetypal motif of Faust might have influenced even the Gothic. In any case, an irresponsible scientist wants to obtain obscure knowledge just like Faust and in order to do so, he often performs dangerous actions. In other words, a scientist and his wild experiments might be viewed as something wicked. Consequently, an irresponsible scientist, who is not being controlled, might have functioned as the same source of fear as Faust obtaining powers from dark and secret rituals. Such an analogy is supported by the fact that the pre-Modern fear of magic and alchemy gradually transferred to science.[6] However, in comparison

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[1] Arnd Bohm, "Northrop Frye: The Consolation of Criticism," *Monatshefte* 95, no. 2 (Summer 2003): 313.
[2] Geoffrey Hartman, "Structuralism: The Anglo-American Adventure," *Yale French Studies*, no. 36/37 (1966): 158-159.
[3] Natalie M. Underberg, "Bargain with Devil, Motif M210," in *Archetypes and Motifs in Folklore and Literature*, ed. Jane Garry and Hasan El-Shamy (Armonk: M.E. Sharpe, 2005), 303.
[4] André Dabezies, "Faust," in *Companion to Literary Myths, Heroes and Archetypes*, ed. Pierre Brunel (London: Routledge, 2015), 432.
[5] Dabezies, "Faust," 434-435.
[6] Faye J. Ringel, "Genetic Experimentation: Mad Scientists and The Beast," *Journal of the Fantastic in the Arts* 2, no. 1 (Spring 1989): 66.

with Medieval wizards known mainly from legends, the figure of an irresponsible scientist presents a much more realistic possibility.

The reason is that, due to the 19th century interest in Darwinism, people representing danger for society were observed and studied. As a result, those individuals were explained via the terms as "impulsive insanity" and "irresistible impulses", which emphasized an impact of biology and environment on shaping human behaviour.[1] In other words, people suffering from those conditions were not truly responsible for their deeds because, simply, they either could not resist their urges or were not capable of distinguishing between the good and the bad. In effect, an irresponsible scientist might be considered a subtype of a madman. The reason is that he causes evil not because he would willingly want to, but because it is a side effect of his intention to push the boundaries of progress. And while being focused on his goal, he forgets to take into consideration other perspectives. As a result, he is possibly even more dangerous.

Generally, the archetype of an irresponsible scientist is characterized not only by reckless behaviour and high ambitions, but also by the fact that some kind of a monster is always either introduced or even created. Bram Stoker puts vampires into the context of Victorian era and asylums through scientists' eyes, Marry Shelley lets Victor Frankenstein create a new being out of corpses, and Robert Louis Stevenson gives physical form and actual name to a monster emerging from his main character's personality. Additionally, all of those monster-related occurrences evoke a feeling that "if not God's province, then at least some deep principle of natural fitness of things is being violated."[2] In effect, gothic narratives based on a figure of a scientist might be interpreted as a message warning against possible mischiefs of science.[3] Interestingly, the genre of science-fiction, which developed from the Gothic, is sometimes described not as a manifestation of science itself, but as a catastrophe resulting from conscious or unconsciousness misuse of science.[4]

On the whole, an interpretation of every story and its potential meaning and message is always subjective, since it is influenced by culture, time-period and a reader's personal experience.

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[1] Melissa J. Ganz, "Carrying On Like a Madman: Insanity and Responsibility in Strange Case of Dr. Jekyll and Mr. Hyde," *Nineteenth-Century Literature* 70, no. 3 (December 2015): 364.

[2] Milton Millhauser, "Dr. Newton and Mr. Hyde: Scientists in Fiction from Swift to Stevenson," *Nineteenth-Century Fiction* 28, no. 3 (December 1973): 297.

[3] Christopher P. Toumey, "The Moral Character of Mad Scientists: A Cultural Critique of Science," *Science, Technology, & Human Values* 17, no. 4 (Autumn 1992): 412.

[4] Brantlinger, "The Gothic Origins of Science Fiction," 34.

Nevertheless, specific elements and archetypes are consistent in most of the narratives. For example, Shelley's Victor Frankenstein is, according to many scholars, a type of a character which served as a model for the majority of subsequent mad scientists in literature and cinematography.

It is obvious that Victor Frankenstein fulfils the same archetypal role of a man of knowledge which could be found in previously written gothic narratives as well as in ancient myths and legends. Nevertheless, his character is modified. He is no longer depicted as a necromancer who calls the dead from graves by means of dark rituals, demanding spells and cursed artefacts. Instead, he uses possible real-life technology and instruments. He did not discover the secret of life-creation in some long-forgotten grimoire, on the contrary, he systematically and maybe even objectively compiled the life-giving knowledge from public textbooks, research papers and various scientific works. In other words, Victor Frankenstein is the 19th century redesign of Medieval shamans and wizards possessing great obscure knowledge. In addition to his mental capacities, he is probably even more a brilliant scientist than a reader might consider him to be, because, as Sarah Marsh observes, he actually makes two important discoveries. Firstly, he unveils the knowledge of creating life and then, secondly, he manages to put this still theoretical principle into practice and create a new life.[1] Therefore, he fulfils and sets all conditions required for an archetypal irresponsible scientist appearing in the 19th century Gothic.

Frankenstein's motivation for finding the process of reanimation of dead tissue did not come to his mind in one day. As Mary Shelley builds his character background, it is apparent that his object of interest had already been formed during his childhood: "Wealth was an inferior object, but what glory would attend the discovery if I could banish disease from the human frame and render man invulnerable to any but a violent death!"[2] It is clear that Frankenstein's motif was not an absolute power and wealth as in the case of other typical literary villains. Instead, he wants to achieve quite a noble goal, which is to cure the sick and thus to ultimately improve the quality of life. Therefore, his primary desires and goals are not a priori evil.

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[1] Sarah Marsh, "Romantic Medicine, the British Constitution, and 'Frankenstein'," *Keats-Shelley Journal* 64 (2015): 112.
[2] Shelley, *Frankenstein*, 38.

Nevertheless, as his research advances, he starts to display a rational blindness caused by his achievements:

> When I found so astonishing a power placed within my hands, I hesitated a long time concerning the manner in which I should employ it. […] I doubted at first whether I should attempt the creation of a being like myself, or one of simpler organization; but my imagination was too much exalted by my first success. […] I prepared myself for a multitude of reverses; […] yet when I considered the improvement which every day takes place in science and mechanics, I was encouraged to hope my present attempts would at least lay the foundations of future success. Nor could I consider the magnitude and complexity of my plan as any argument of its impracticability. It was with these feelings that I began the creation of a human being.[1]

As it is apparent from this passage, Frankenstein was blinded by his progress and was not able to provide a rational evaluation. He clearly states that his mind was preoccupied only by the prospect of success and he sometimes even consciously ignored the possible risks of which he was aware. Therefore, he was willing to make a mistake. The reason is that for him even a mistake meant progress since it provided more accurate information required for the future attempt. In other words, Frankenstein is irresponsible because he only wants to attain his goal and does not consider its side effects, which a proper scientist should also take into consideration and try to avoid them.

Similarly, even Stevenson's Dr Jekyll shows professional irresponsibility. He resembles Victor Frankenstein in process of setting his goals. Firstly, inspired by his inner conflict between his private and public life, Dr Jekyll formulates his initial hypothesis:

> I had learned to dwell with pleasure […] on the thought of the separation of these elements. If each, I told myself, could but be housed in separate identities, life would be relieved of all that was unbearable; the unjust delivered from the aspirations might go his way, and remorse of his more upright twin; and the just could walk steadfastly and securely on his upward path, doing the good things in which he found his pleasure.[2]

Again, Dr Jekyll's idea is not a priori evil. On the contrary, his hypothesis reflects a common problem of any society and provides a possible solution. Even though Dr Jekyll's statement might sound peculiar, it is undeniable that his goal is not to cause harm, but to reduce the inner frustration of any individual and contribute to the public good. This assumption is supported by

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[1] Shelley, *Frankenstein*, 51.
[2] Stevenson, *Dr. Jekyll and Mr. Hyde*, 60.

Dr Jekyll's choice of a word 'relieve'. It carries quite positive connotations and the whole sentence demonstrates a certain degree of empathy since he does not aim at improving only his state of mind, but also at providing help to other people suffering from the same condition. Therefore, the aim of Dr Jekyll is not to make a famous name in a scientific community, but to actually improve life in general.

Nevertheless, his hypothesis, already at the very beginning, is almost naively optimistic and does not take into consideration possible side effects. And again, as Dr Jekyll proceeds with his research, he makes the same mistake as Victor Frankenstein:

> I hesitated long before I put this theory to the test of practice. I knew well that I risked death; for any drug that so potently controlled and shook the very fortress of identity, might by the least scruple of an overdose or at the least inopportunity in the moment of exhibition, utterly blot out that immaterial tabernacle which I looked to it to change. But the temptation of a discovery so singular and profound, at last overcame the suggestions of alarm.[1]

Apparently, despite knowing a possible weakness of his drug, Dr Jekyll did not fully consider an excess and impact of potential side effects. For him, it was either a success or failure situation, nothing in between. Therefore, even though after a long hesitation, he irresponsibly ignored all points of view and made a decision without having all information and complete preliminary research.

In addition, Dr Jekyll's narrative once again shows resemblance with Frankenstein because he admits that his ability of clear rational thinking had been overpowered by a prospect of potential achievement. Caution and safety protocols had to move aside. The desire to make a ground-breaking discovery was more tempting and, therefore, Dr Jekyll irresponsibly decided to try the 'hypothetical' cure on himself without properly informing anyone about his intentions. He was simply blinded by a vision of near success and ignored all forms of warnings.

Moving on to *Dracula*, the novel offers an irresponsible scientist in a slightly different setting. Bram Stoker does not explicitly provide a scientist who gradually abandons rational thinking, however, there still is a character that fulfils the role – Dr Seward. He is introduced by Lucy in her letter, in which she describes him as a calm, clever and imperturbable doctor with absolute

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[1] Stevenson, *Dr. Jekyll and Mr. Hyde*, 61.

control over his patients.[1] Later on, his diary displays his field of interest. In that part, his observation of patient Renfield is introduced, which gradually turns into an experiment. This event makes Dr Seward an irresponsible scientist, because he helps to form one of the novel's minor 'monsters.'

In detail, Renfield has a habit of collecting insects and small animals. This fact was observed by Dr Seward who told him to get rid of the flies and the subsequent action caught Dr Seward's attention:

> He disgusted me much while with him, for when a horrid blowfly […] buzzed into the room, he caught it, held it exultantly for a few moments […] and before I knew what he was going to do, put it in his mouth and ate it. I scolded him for it, but he argued quietly that it was very good and very wholesome, that it was life, strong life, and gave life to him. This gave me an idea, or the rudiment of one. I must watch how he gets rid of his spiders.[2]

This passage marks the beginning of his research and, simultaneously, reveals his cold and excessively rational approach. Even though he shows some emotions by being disgusted at first, still, it gets overridden by a desire to observe and conduct an experiment. In contrast to Frankenstein and Dr Jekyll, his initial idea is not explicitly about an improvement of society and helping the sick. Nevertheless, in the context of a doctor working in an asylum, it might be assumed that his findings would serve as a supportive study for other researchers trying to help patients suffering from mental illnesses.

However, Dr Seward's approach gets twisted when he justifies the direction of his experiment:

> Men sneered at vivisection, and yet look at its results today! Why not advance science in its most difficult and vital aspect, the knowledge of the brain? Had I even the secret of one such mind, did I hold the key to the fancy of even one lunatic, I might advance my own branch of science to a pitch compared with which Burdon-Sanderson's physiology or Ferrier's brain knowledge would be as nothing.[3]

Clearly, Dr Seward, in line with other gothic mad scientists, gets blinded by a prospect of a revolutionary discovery and possible subsequent fame. He even dares to compare his research to useful theories and practices of his time. In addition, in the course of events of the experiment,

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[1] Stoker, *Dracula*, 64.
[2] Stoker, *Dracula*, 79.
[3] Stoker, *Dracula*, 81-82.

he loses a detached point of view and for that reason he becomes blind towards warnings about Count Dracula's interference. Therefore, his personal hunt for a new classification of mental disorder causes that he makes irresponsible decisions.

Apart from obsession with an experiment, Dr Seward also presents his own monster: "My homicidal maniac is of a peculiar kind. I shall have to invent a new classification for him, and call him a zoophagous (life-eating) maniac. What he desires is to absorb as many lives as he can, and he has laid himself out to achieve it in a cumulative way."[1] This passage is important due to Saussure's theory of language. The implication of the theory is that every concept is invisible to speakers until it is given a name. Therefore, Dr Seward's invention of a name for Renfield's condition might be understood as a formal creation of a new type of a monster. This observation is supported by his own words. He explicitly states that he invents a new category and even provides it with a brief definition using psychology-related vocabulary like 'homicidal manic', 'absorb', and 'cumulative way'.

Interestingly, Dr Seward's process of defining zoophagous might have also evoked a feeling of a mysterious secrecy. Particularly, there is one possible reading experience, which is probably lost for the modern reader, and that is an association with chemical formulas. Historically, chemistry symbols were quite new in the 19th century and used in many variations due to the lack of a unifying rule, therefore, the inclusion of a chemical language might have evoked a feeling of alchemy, mystery and obscure knowledge.[2]

Additionally, it should be noted that Renfield's condition foreshadowing future disaster makes sense only because he is "entrapped" in an asylum. If Renfield's storyline took place somewhere else, he could have been mistaken for a different type of a troublesome man. For example, if he was homeless or situated anywhere else on the outskirts of a society, figuratively and literally, he could have been mistaken probably for a drunkard. In this case, his bizarre behaviour would not rise such a high level of excitement and interest. Due to the fact that he is a patient in an asylum, it gives the readership a certain amount of credibility in the form of an assurance that only people with mental problems are kept here. Moreover, popular culture is full of stories about innocent people being imprisoned in an asylum, therefore, there is a

[1] Stoker, *Dracula*, 81.
[2] Feinstein, "Dracula and Chloral Chemistry Matters," 106.

possibility that Renfield is not actually insane, but only oversensitive to certain impulses and his behaviour has, in fact, rather rational explanation.

Simultaneously, an irresponsibility of Dr Seward contributes to the sense of Renfield's weird behaviour. Dr Seward's reckless experiment unveils Renfield's secret intentions and intensifies reader's feeling that there is some supernatural force involved in Renfield's mumbling and actions. In other words, Renfield must be put into a relationship with Dr Seward because otherwise his behaviour would not make such a clear sense. A reader knows that the source of Renfield's weird behaviour is the arrival of Dracula, however, if the narrative took place for example in the dark alleys of London, he would be interpreted as a criminal, lunatic, or just a drunkard whose extravagancies might be a result of intoxication. And even more importantly, if Renfield really was a beggar living under the bridge, then a reader might ask a question what is so special about him. Why did Dracula, the noble Count from an ancient country, choose exactly him out of all thousands of possibly mad people and myriads of typologies of possible criminals? But putting Renfield into an asylum makes everything clear, he has a mental feature that enables him to be in contact with Dracula.

Subsequently, Dr Seward presents a fact that Renfield is not an ordinary insane patient. Through his systematic and scientifically objective observation he uncovers the foreshadowing reality that Renfield is not so bound by the laws of science but belongs rather to the supernatural. In addition, the whole situation is even more emphasized by Dr Seward's blindness towards all warnings. He is preoccupied only by his experiment and his unintentional mistakes and carelessness gradually create a window of opportunity for Dracula.

In summary, the Gothic of the 19th century tends to work with an archetypal character of an irresponsible scientist. Specifically, he is a contemporary reimagination of a Medieval wizard and alchemist, hence, the source of fear moves from abstract magic to a real-life technology. In addition, an archetypal irresponsible scientist is usually not the main villain in a narrative since his intentions are very often meant well at the beginning. Nevertheless, as he gets near to a breakthrough in his research, his desire for success mutes all warnings and makes him rather reckless in his next steps. In effect, his achievement of his set goal is fatal.

Parole of a Second Scientist as Counterbalance

The inevitable disaster of an irresponsible scientist is an essential element which is usually foreshadowed throughout the narrative. One of the strategies of doing so is the presence of another scientist who serves as a counterpart. The reason is simple. In accordance with the structuralist theory of binary oppositions, an irresponsible scientist requires his own opposite for creating a clear contrast between the points of view they embody. Furthermore, in terms of narratology, the presence of two opposing sides provides a conflict stemming from preferences.[1] In this case, the preferences stand for a scientific approach. Consequently, the friction between both emphasizes the main protagonist's loss of caution and rational thinking. Therefore, a reader may easily perceive that something bad and wicked is about to happen.

In practice, a counter-scientist is quite the opposite of irresponsibility and usually serves as a moral, ethical, and also professional opposition. Additionally, in terms of theoretical backgrounds from the previous chapter, the figure of a counter-scientist possesses features of an archetype as well and shows certain prescribed attributes. Due to this fact, he could be understood as a variation of a 'wise old man'. To be specific, this archetype functions as a protective figure, usually a magician or some other 'man of mind', and shows the hero the right direction.[2] However, a hero of the Gothic, in order to experience genre's necessary disaster, very often fails to recognize such an advice, sometimes even defies it, and continues in his ill doing.

In the context of the Victorian era, the core of dispute between those two archetypal characters is the attitude towards science. Generally, it could be understood that there were two viewpoints on science in a public society. On one hand, the 19th century could be described as a time in which a demand for large quantities of factual material were ever-present,[3] which caused that the scientific community achieved an immense progress in various fields. However, on the other hand, experiments on living animals triggered a huge fear in British society. Specifically, as Rob Boddice describes, the Victorians were afraid of the Continental influence. Particularly, there was a fear of cold German scientists, who without any questions did what they were told

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[1] Tom Cochrane, "Narrative and Character Formation," *The Journal of Aesthetics and Art Criticism* 72, no. 3 (Summer 2014): 306.
[2] Underberg, "Bargain with Devil, Motif M210," 342.
[3] G. Glen Wickens, "The Two Sides of Early Victorian Science and the Unity of 'The Princess'," *Victorian Studies* 23, no. 3 (Spring 1980): 369.

to do, and who, most importantly, had almost no regard to the suffering of their subjects. Such an influence caused a great distress because Victorians believed that by applying that approach, scientists would lose a sense of morality and, eventually, British civilization would crumble.[1] Simultaneously, the Gothic reflects this situation.

There is an irresponsible scientist who consciously or unconsciously leaves his moral compass behind and sets on a reckless path leading to his goal. In order to do so, he does not consider any possible dangers and drawbacks. Simultaneously, there is his counterpart. Another scientist who manages to resist a desire to explore questionable ideas and retains his sense of morality and ethics. Importantly, he offers a different point of view to an irresponsible scientist. This kind of discussions was probably common in the real life for there was a number of projects and theories which stood between being controversial and orthodox. The reason is simple. Apparently, there was a huge grey area for "it was often impossible for Victorians to agree on what counted as illicit or pseudoscience or medical quackery in specific instances".[2] Therefore, there was a possible blind spot in rules of the Victorian scientific community, which allowed some researchers to implement their wild ideas and, potentially, cause harm.

An example of a counter-scientist could be traced already in *Frankenstein*. Even though Mary Shelley did not use a fully elaborated character, still, an opposing viewpoint is present. Firstly, during Victor Frankenstein's childhood, his own father contradicts his favourite authors: "Ah! Cornelius Agrippa! My dear Victor, do not waste your time upon this; it is sad trash."[3] He openly stated that the author is of a bad quality, however, he did not provide an explanation why. Therefore, Victor continued in his self-study and directed his mind in a more unorthodox manner. Later on, in Frankenstein's adulthood, there is a completely different standpoint, which directly attacks Frankenstein's ideas, which is delivered via a university professor:

> The professor stared: 'Have you […] really spent your time in studying such nonsense?' I replied in the affirmative. 'Every minute, […] every instant that you have wasted on those books is utterly and entirely lost. You have burdened your memory with exploded systems and useless names. […] I little expected, in this enlightened and scientific age, to find a disciple of Albertus Magnus and Paracelsus. My dear sir, you must begin your

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[1] Rob Boddice, *The Science of Sympathy: Morality, Evolution, and Victorian Civilization* (Urbana, Chicago, and Springfield: University of Illinois Press, 2016), 54-55.
[2] Alison Winter, "The Construction of Orthodoxies and Heterodoxies in the Early Victorian Life Sciences," in *Victorian Science in Context*, ed. Bernard Lightman (Chicago: The University of Chicago Press, 1997), 31.
[3] Shelley, *Frankenstein*, 36.

studies entirely anew.' So saying, he stepped aside, and wrote down a list of several books treating of natural philosophy.[1]

This part illustrates an encounter between Frankenstein's knowledge of ancient authors and the modern theories and findings. At first, it appears that, in face of such an authority, Frankenstein would succumb to the mainstream scientific direction and reorient his research interests. And in fact, his rapid and immense progress in his studies confirm that assumption. However, as an archetypal irresponsible scientist, he does not entirely abandon his previously acquired knowledge – in other words, he does not follow the advice given to him. He was indirectly told that he should forget all he had learned so far. The professor even emphasized that his previous studies were a waste of time and a completely new beginning is required. However, Frankenstein is determined to achieve something big. And for that he combines both systems of knowledge and eventually succeeds.

Apart from implicitness of *Frankenstein*, *Strange Case of Dr Jekyll and Mr Hyde* explicitly describes a dispute between two scientists advocating for different approaches. The novella presents an irresponsible scientist Dr Jekyll and his counterpart Dr Lanyon. Dr Lanyon openly describes Jekyll's work and interest as "scientific heresies"[2] and "unscientific balderdash."[3] The expressed disapproval is accompanied even by other actions. For example, Dr Lanyon admits that, despite being old friends, he does not appreciate the company of Dr Jekyll as he used to in the past. For that reason, he almost avoids any interaction with him.

The change in the relationship between those two scientists could be interpreted as a metaphor for the relationship between two different scientific approaches. Apparently, Dr Lanyon stands for positive and safe science which not only seeks progress and improvement, but also puts emphasis on being moral and cautious. In other words, he could be understood as a representative of a typical Victorian scientist who defies the Continental influence and advocates for a thoughtful and careful advancement. Dr Jekyll, on the contrary, stands for the opposite. It would be questionable to fully ascribe him to the Continental model, nevertheless, his actions are undoubtfully in opposition to Dr Lanyon's approach. He is determined to achieve his goal and for that he even neglects procedures and does not conduct enough preliminary research. As a result, once he gets the right ingredient, he immediately tests it on himself

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[1] Shelley, *Frankenstein*, 43.
[2] Stevenson, *Dr. Jekyll and Mr. Hyde*, 20.
[3] Stevenson, *Dr. Jekyll and Mr. Hyde*, 14.

without further testing. Therefore, he causes the monster-related series of events and when he discovers the truth about the unexpected and untraceable impurity of the ingredient, it is already too late to reverse the damage. Finally, not listening to Dr Lanyon's advice cost him his life.

In addition, Dr Jekyll in the form of Mr Hyde even successfully tries to corrupt Dr Lanyon. When he is about to transform back to his good self, he gives a choice:

> 'And now,' said he, 'to settle what remains. Will you be wise? Will you be guided? […] Or has the greed of curiosity too much command of you? Think before you answer, for it shall be done as you decide. As you decide, you shall be left as you were before, and neither richer nor wiser. […] Or, if you shall so prefer to choose, a new province of knowledge and new avenues to fame and power shall be laid open to you.'[1]

Dr Jekyll, via Mr Hyde, gives Dr Lanyon one last chance to step out from this dubious and supposedly immoral experiment. This negotiation and Mr Hyde's proposal emphasize the contrast between both scientists. On one hand, there is Dr Jekyll as Mr Hyde who offers an unlimited access to new knowledge and possibly even power and, on the other hand, there is Dr Lanyon's hesitation and moral standpoints focusing on caution. Both embody two opposing standpoints. Additionally, it is apparent that not only Dr Jekyll refused Dr Lanyon's advices and criticism, he even tries to pass on the destruction resulting from his irresponsibility.

Moving on to *Dracula*, the novel provides a more optimistic encounter between both parties. Dr Seward, a scientist making reckless decisions, is not as stubborn as Victor Frankenstein and Dr Jekyll. Therefore, when he acquires inconclusive results regarding his patient, Miss Westenra, he decides to seek help from Van Helsing, who is known for his knowledge of obscure diseases.[2] As a result, the arrival of Van Helsing presents a cooperation between two different approaches. Dr Seward represents a rational scientist, who embodies the residual feeling of the Age of Enlightenment, and takes into account only empirical data, which he can objectively verify. In contrast, there is Van Helsing, who stands for an open-minded approach combining rational and rather irrational aspects:

> He is a seemingly arbitrary man, this is because he knows what he is talking about better than any one else. He is a philosopher and a metaphysician, and one of the most advanced scientists of his day, and he has, I believe, an absolutely open mind. This, with an iron nerve, a temper of the ice-brook, and indomitable resolution, self-command, and

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[1] Stevenson, *Dr. Jekyll and Mr. Hyde*, 56-57.
[2] Stoker, *Dracula*, 126.

toleration exalted from virtues to blessings, and the kindliest and truest heart that beats, these form his equipment for the noble work that he is doing for mankind, work both in theory and practice, for his views are as wide as his all-embracing sympathy.[1]

As it is apparent from the description of Van Helsing, he is the opposite of Dr Seward. He manages to combine rational objectivity with intuition and alternative sources of information. For that reason, he is able to provide a completely different treatment and subsequent managing of the whole supernatural event.

However, his suggestions are not always immediately accepted by Dr Seward, who is not able to easily and empirically validate them nor support Van Helsing's claims with the use of modern methodology and findings. As a result, he always has his own doubts and has to be persuaded. Van Helsing usually has to remind him that what is considered 'normal' now had not always been accepted in the past: "Let me tell you, my friend, that there are things done today in electrical science which would have been deemed unholy by the very man who discovered electricity, who would themselves not so long before been burned as wizards."[2]

In most of similar instances, Van Helsing makes connection between modern science and obscure knowledge. He presents a completely opposing approach in solving problems via the use of science. Van Helsing's procedures and methodology do not exclusively originate in modern theories and latest technology. On the contrary, he finds inspiration in the past. By using folklore and his own experience, he re-evaluates what others had without thinking doomed to be useless and creates his own body of knowledge in order to fill gaps in official treatments. In addition, despite being a Dutchman, he very strongly resembles typical English scientific amateurism, which was eminent throughout the Victorian era. In effect, he is able to help Dr Seward and show him the right direction.

Even though Dr Seward resists on many occasions, he does not openly defy him and is willing to let Van Helsing prove his theories: "Professor, let me be your pet student again. Tell me the thesis, so that I may apply your knowledge as you go on. At present I am going in my mind from point to point as a madman, and not a sane one, follows an idea."[3] Dr Seward's request for clarification of Van Helsing's theory gives the readership hope. Unlike Victor Frankenstein

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[1] Stoker, *Dracula*, 125-126.
[2] Stoker, *Dracula*, 212-213.
[3] Stoker, *Dracula*, 214.

and Dr Jekyll, he admits that his expertise and information might be limited. Even though he shows certain irresponsibility in regard to his other patient Renfield in an asylum, still, he retains sanity and rationality. Therefore, when Van Helsing formulates his unusual suggestions as a proper theory supported by evidence, Dr Seward is willing to give it a chance. The reason is that by giving a definition to Van Helsing's idea, it enables systematic and rational exploration. In effect, Dr Seward does not oppose his counterpart so strongly and by listening to his advice, unlike other irresponsible scientists, his character does not experience death or any kind of tragedy.

In summary, the presence of another scientist alongside with a protagonist in a gothic narrative creates tension. It is used in order to emphasize the contrast and to point out an irresponsible scientist's flaws. Generally, the scientific counterpart serves as a moral and professional guide, who provides criticism and advice, and the dispute stands for a clash between two opposing approaches towards science. However, an irresponsible scientist very often refuses to follow any advice and ends up in a difficult situation which very often leads to disaster and death.

Parole of a Monster in Relation to a Scientific Approach

Apart from scientists, one of the key elements of the Gothic is also the presence of a monster. Whether the role is fulfilled by an actual supernatural creature or just an evil human, still, a monster could be found virtually in every gothic narrative. The first gothic production offered a kind of monsters that belonged to the supernatural world. Nevertheless, with the arrival of the Age of Enlightenment and the Victorian obsession with science, new possibilities emerged in the Gothic. Suddenly, a proper gothic monster does not necessarily have to be a ghost or a creature with mysterious and preferably folkloristic background, in contrast, a monster may be the result of a scientific experiment which is connected to its current era.

As was already mentioned, the Victorian era was obsessed with science. The trend of scientific progress was already set back in the Age of Enlightenment and especially discoveries and achievements of the 18th century laid foundations for the Victorian science. One of the crucial points in history which made Victorians almost obsessed with science was the discovery of electricity. Consequently, electricity became associated with certain controversies because a large number of men tried to make an economic profit from it and scientists were delving into matters such as the relation between electricity and life.[1] Moreover, in a vast number of cases, both reasons merged in the form of an experimental performance.

Similarly to mesmerists, whose acts and shows were based on scientific lecturing, lay healing, and entertainment,[2] even "non-commercial" and "regular" scientists adopted the art of performance. Since 1729, when Stephen Gray announced his discovery of electrical induction, a large number of experiments involving human participants, especially children, were exhibited in front of an audience.[3] Those shows with children, who were motionlessly held and used as an object for transferring shocks and particles, became quite popular for the reason that watching another human being in a helpless and passive situation is a deeply meaningful experience for an audience.[4] This description, in its own way, fulfils characteristics of the Gothic – there is a human who is put into an unsettling situation, in other words, he is entrapped and exposed to bizarre elements and forces. Nevertheless, those public performances were

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[1] Iwan Rhys Morus, "Currents from the Underworld: Electricity and the Technology of Display in Early Victorian England," *Isis* 84, no. 1 (March 1993): 50.

[2] Parssinen, "Mesmeric Performers," 89.

[3] Arthur Elsenaar and Remko Scha, "Electric Body Manipulation as Performance Art: A Historical Perspective," *Leonardo Music Journal* 12, Pleasure (2002): 17.

[4] Elsenaar and Scha, "Electric Body Manipulation as Performance Art: A Historical Perspective," 17-18.

harmless at the beginning. However, as the body of knowledge about electricity expanded, scientists and performers went even further – they commenced with immense animal electrocutions and the only thing that prevented electrocuting people was the lack of advanced technology.[1]

In that time-period, one of the most sensational performers was Giovanni Aldini, the nephew of Luigi Galvani. The main point of Aldini's presentations in London was to illustrate *galvanism* and Galvani's term *animal electricity*, which referred to the relationship between electricity and an animation of dead tissue, by showing decapitated animals being revived to movement via the means of electrical shocks.[2] Gradually, dead animals were not enough. Therefore, he decided to revive recently executed criminal and by using zinc and copper plates forced the corpse to quiver with jaws, distort facial features and open one eye.[3]

In general, those experimental performances including manipulation with dead animals and corpses could be considered as a visual production belonging to the same group as the Gothic. Scientists performing those experiments behaved almost like magicians in a theatre. The performing scientist had to be self-conscious and a precise choreography was required.[4] Experiments became a source of entertainment taking place on venues, exhibitions and peep shows on street corners.[5] Furthermore, experimental performances might have been viewed as a mad scientist's laboratory being placed in a real world, as was observed by Richard Altic: "Professors were there, teaching elaborate science in lectures of twenty minutes each. Fearful engines revolved and hissed, and quivered. Mice led gasping sub-aqueous lives in diving-bells. Clockwork steamers ticked round and round a basin perpetually to prove the efficacy of invisible paddle wheels. There were artful snares laid for giving galvanic shocks to the unwary."[6]

Suddenly, the public did not have to read typical gothic stories about demons and ghosts in order to be scared. The medieval image of a dark wizard summoning an army of dead faded away when there were dozens, maybe even hundreds of scientists who could force dead bodies

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[1] Elsenaar and Scha, "Electric Body Manipulation as Performance Art: A Historical Perspective," 19.
[2] Poplawski, *English Literature in Context*, 319.
[3] Behlmer, "Grave Doubts: Victorian Medicine, Moral Panic, and the Signs of Death," 213.
[4] Iwan Rhys Morus, "Worlds of Wonder: Sensation and the Victorian Scientific Performance," *Isis* 101, no. 4 (December 2010): 807.
[5] Morus, "Worlds of Wonder: Sensation and the Victorian Scientific Performance," 811-812.
[6] Richard Altick, The Shows of London (Cambridge: Harvard University Press, 1978), 377.

to move and show signals of being alive. Therefore, electricity in the hands of scientists provided a new possible source of fear. Electricity could not only instantly kill, but could also bring back the imitation of life, like in the case of Aldini's performance. In addition, the latter was the perfect combination of both scientific and un-scientific notion of the undead. To be specific, the concept of an undead creature must have been known from ancient legends and myths, nevertheless, it has always been somewhat abstract. The undead usually appeared to be in connection with magic and were explained not in a material way, but rather spiritual, for example, via the realms of underworld in pagan religions and other folklore tales. Nevertheless, the discovery of electricity and its implementation in various experiments gave the undead a more realistic background. From that moment, it was no longer an obscure and forbidden knowledge, on the other hand, it was a common part of a real body of knowledge in science and everyone had access to it via education. In effect, the reanimation of a dead body became a realistic possibility. Only few decades passed since the first electrical experiments on animals and Aldini already managed to make the corpse's face "live". So how much time would it take to succeed in permanent reanimation of a whole dead body? And what would be the consequences? Apparently, Mary Shelley asked herself those questions.

As she wrote in the introduction to the novel, her mind was occupied by thoughts and discussions on scientific experiments[1] and, in addition, she was probably well aware of the experiments with galvanism[2] as well of Davy's theories of chemistry.[3] Especially Davy might have had a great influence on the central scientific idea of Frankenstein. He claimed that chemistry was the key for answering how dead matter could be transformed into living matter and, in order to do it, he experimented with galvanic chemistry for he believed that this field might lead to the discovery of the life force.[4] To sum up, the influence of Shelley's contemporary science on *Frankenstein* is explicit. The amount and inclusion of "actual science" is so large that it makes it different from anything written before.[5]

It is obvious that Galvani's and Davy's theories together with experimental performances became the main inspiration for Shelley. One of the first mentions about the power of electricity

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[1] Shelley, *Frankenstein*, 6.
[2] Maurice Hindle, "Vital matters: Mary Shelley's Frankenstein and Romantic science," *Critical Survey* 2, no. 1 (1990): 33.
[3] Hindle, "Vital matters: Mary Shelley's Frankenstein and Romantic science," 32.
[4] Laura E. Crouch and Davy, "Davy's 'A Discourse, Introductory to a Course of Lectures on Chemistry': A Possible Scientific Source of 'Frankenstein'," *Keats-Shelley Journal* 27 (1978): 36-37.
[5] Sian MacArthur, *Gothic Science Fiction* (New York: Palgrave Macmillan, 2015), 4.

and what impression it left on Victor Frankenstein is provided when he witnessed a lightning destroying a tree with a lecturer putting it into scientific context:

> I remained, while the storm lasted, watching its progress with curiosity and delight. […] Before this I was not unacquainted with the more obvious laws of electricity. When we visited it the next morning, we found the tree shattered in a singular manner. It was not splintered by the shock, but entirely reduced to thin ribbons of wood. I never beheld anything so utterly destroyed. On this occasion a man of great research in natural philosophy was with us, and, excited by this catastrophe, he entered on the explanation of a theory which he had formed on the subject of electricity and galvanism, which was at once new and astonishing to me.[1]

Frankenstein is in this part introduced to the new field of science. The situation and a sequence of events in which he learned about galvanism is important for it is apparent that Frankenstein started to grasp the secret of the life force at that moment. He must have watched a storm like this for countless times before but, on this occasion, he found it curious and, in addition, the shattering of the tree into splinters must have showed him what power electricity has. He saw on his own eyes that it is capable of utter destruction. Therefore, in the context of the early 19th century, when scientists were trying to improve technology in order to electrocute large animals and possibly even humans, he might have come to the insight that if electricity has power to kill, perhaps, it also might have power to revive. And in this astonished state of mind he was given a "lecture" on galvanism as a relatively new theory promising new achievements.

The confirmation of influence of galvanism is apparent in the process of reanimation of the monster later in the novel:

> It was on a dreary night of November, that I beheld the accomplishment of my toils. With an anxiety that almost amounted to agony, I collected the instruments of life around me, that I might infuse a spark of being into the lifeless thing that lay at my feet. It was already one in the morning; the rain pattered dismally against the panes, and my candle was nearly burnt out, when, by the glimmer of the half-extinguished light, I saw the dull yellow eye of the creature open; it breathed hard, and a convulsive motion agitated its limbs.[2]

Although Shelley did not describe the process in detail, still, it is apparent from the surrounding environment that a bolt of lightning was the key factor. Placing the night in autumn evokes violent storms, which is confirmed by an actual pattering of rain, and the choice of word "spark"

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[1] Shelley, *Frankenstein*, 39.
[2] Shelley, *Frankenstein*, 55.

links it with lightning. Even if the word "spark" had been used in a metaphorical way, still, it carries a strong connotation with electricity. In general, the whole situation could be considered as a manifestation of Davy's statement about galvanic chemistry that an electrical shock might revive dead matter. And more importantly, the end of the passage shows remarkable similarities with the Aldini's experiment on the executed criminal. Shelley pays main attention to the distorted facial features, opening an eye and quivering of limbs – even without the reference to Aldini, the described motions of a corpse look as if it was "powered" by electricity.

As a result, Victor Frankenstein is not creating his artificial man in a mystical way. He is not a wizard or any figure from legends – instead, he is an educated and rational scientist. He does not use any mystical ritual and ingredients like full moon light, arcane symbols, virgin's blood and other peculiar items – instead, he uses modern procedures, inventions and the knowledge of 'real' phenomena, for example, electricity and human anatomy. He does not perform his experiment in order to spread evil and conquer the world like typical villains in previously written narratives – instead, he wants to deepen his knowledge, push boundaries of science and possibly provide new perspectives in medicine. In effect, Victor Frankenstein's creation of an artificial man was not so unbelievable in the context of scientific exploration and performances in the 18th and 19th centuries. Moreover, the idea of a scientist whose ambitions and results are ahead of his time is still a popular topic, for example the 20th century's Karel Čapek's image of robots that eventually massacre mankind and the 21st century's Marvel's scientist Tony Stark creating Ultron, the artificial intelligence for protecting Earth, which also turns out to be a threat to the human race.

However, the Gothic does not have to work only with fictional and prominent scientists. For example, *Dracula* and *Strange Case of Dr Jekyll and Mr Hyde* use elements of a theory, or more specifically theories, originated in the work of Charles Darwin. His *On the Origin of Species* along with accompanying terms like "evolution", "natural selection" and "survival of the fittest" very likely caused such a radical shift in the Victorian society that many scholars, when writing about evolution, put it into one sentence with a word "revolution", which conveniently fits the effect of Darwin's work.

The reason why the theory of evolution brought such a dispute was partially connected to culture and religion. Firstly, the idea of natural selection depicted human race only as a more developed animal species and, therefore, not only it put the theory of God's creation and design

to the risk[1], but probably even more importantly it denounced the centuries-long feeling that mankind stands above other God's creations with the status of a "special one".[2] Such a statement must have undermined a huge deal of cultural identity in which the idea of God's creation and the gradual unveiling of God's plan for the world was an important feature. Even the term *evolution* itself carries a connotation with deity since it is derived from a Latin word "evolutio", which means "unrolling of a scroll".[3] In addition, it is interesting that the notion of the main idea constituting Darwin's theory was not completely new. There had already been instances of hinting at the premise of Darwin's evolution throughout the history since ancient Greeks, including Aristotle and his "great chain of being" listing organisms from the simplest to the most complex, to pre-Darwinian scientists who tried to interpret fossils via the term "Special creation" meaning that God kept creating new and new species after every catastrophe.[4] However, it was Charles Darwin who came up with a thorough and systematic research and, more importantly, gave it a name and provided a list of terms with their definitions. In effect, the theory of evolution was commonly accepted especially by naturalists and became one of the main socio-cultural changing forces in the 19th century.[5] The influence of Darwin's work on the general public can be traced in the Gothic. Namely the upcoming and already happening changes in the Victorian understanding of the world make a large portion of themes in the novels *Dracula* and *Strange Case of Dr Jekyll and Mr Hyde*, which were written approximately at the same time.

To begin with *Dracula*, the character of the Count himself shows parallels with the condition of adapting to the environment for he is able to transform into a dog and a bat in order to succeed in fulfilling his plan and overcoming any obstacles. Therefore, in the light of a new understanding of nature due to evolution, even such a typical supernatural entity – a vampire – suddenly gains a possible "realistic" explanation. The alternative origin of Count Dracula is presented by Van Helsing:

> The very place, where he have been alive, Undead for all these centuries, is full of strangeness of the geologic and chemical world. There are deep caverns and fissures that reach none know whither. There have been volcanoes, some of whose openings still

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[1] Peter J. Bowler, "Darwin's Originality," *Science* 323, no. 5911 (January 2009): 223.
[2] Niles R. Holt, "Darwinism: Evolution or Revolution?," *OAH Magazine of History* 4, no. 2 (Spring 1989): 31.
[3] Bowler, "Darwin's Originality," 223.
[4] Holt, "Darwinism: Evolution or Revolution?," 30.
[5] Francisco J. Ayala, "Darwin and the Scientific Method*," Proceedings of the National Academy of Sciences of the United States of America* 106, Supplement 1: In the Light of Evolution III: Two Centuries of Darwin (June 2009): 10037.

send out waters of strange properties, and gases that kill or make to vivify. Doubtless, there is something magnetic or electric in some of these combinations of occult forces which work for physical life in strange way, and in himself were from the first some great qualities. In a hard and warlike time he was celebrate that he have more iron nerve, more subtle brain, more braver heart, than any man. In him some vital principle have in strange way found their utmost. And as his body keep strong and grow and thrive, so his brain grow too.[1]

Van Helsing provides the readership with a new point of view on the origin of Dracula. He is well aware of folklore and legends accompanying Dracula, yet, he explains his origin in a rather scientific way. Van Helsing does not regard Dracula as a supernatural demigod, instead, he considers vampires a valid species with its natural habitat in Transylvania. Van Helsing gives almost a scientific hypothesis of Dracula's ability to adapt to his environment. He puts it into the context of not only Transylvanian geology, magnetism and other factors, but also mystic and occult forces that, in Van Helsing's wording, wait to be verified and classified as credible fields of science. Therefore, Van Helsing is almost making a statement that Dracula is a product of evolution, even though a twisted one. Vampires, in Van Helsing's explanation, originated as a result of influence of their immediate environment and managed to adapt even to various natural forces.

In addition, the novel puts vampires into the context of other animal species when the character Quincey expresses his confusion about Lucy's loss of blood:

> I have not seen anything pulled down so quick since I was on the Pampas and had a mare that I was fond of go to grass all in a night. One of those big bats that they call vampires had got at her in the night, and what with his gorge and the vein left open, there wasn't enough blood in her to let her stand up, and I had to put a bullet through her as she lay.[2]

In that part, Stoker creates a parallel between Dracula and real-life animals. By providing a reference to vampires as a species of bats, Dracula becomes a possibility which is supported by evidence and records. In addition, the reference to bats is further elaborated later in the novel by the words of a hospital doctor taking care of wounded children:

> There may be some wild specimen from the South of a more malignant species. Some sailor may have brought one home, and it managed to escape, or even from the

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[1] Stoker, *Dracula*, 356.
[2] Stoker, *Dracula*, 169.

Zoological Gardens a young one may have got loose, or one be bred there from a vampire.[1]

This doctor's deduction supports the image of undead vampires as a possible species. In this depiction, bats might not only carry the metaphorical foreshadowing of a creature of night, darkness and other typical horror and gothic associations, but they may also stand for a more literal reality. Specifically, bats are presented as a discovery of overseas voyages of exploration to exotic countries and also as an object of study in zoological gardens which also serve the function of scientific observation of animals. Therefore, even a typical Gothic animal like a bat is used in a way in which its biological and geographical features fit into the concept of declaring folklore vampires a valid species. Moreover, even the choice of naming enhances the supposed parallel. Stoker uses the word "vampire" interchangeably even though he could differentiate bats, real animal species, from the supernatural being by the word "nosferatu", which he used only twice in the whole novel. The constant use of "vampire" for both instances may create a possible analogy between the origin and behaviour of both described species and, thus, evoke a high degree of plausibility.

Even more interesting is Dracula's process of adapting to the environment. Van Helsing provides a thorough explanation of his strategy and describes one of the most basic features of blending and surviving in a new country:

> In his life, his living life, he go over the Turkey frontier and attack his enemy on his own ground. He be beaten back, but did he stay? No! He come again, and again, and again. Look at his persistence and endurance. With the child-brain that was to him he have long since conceive the idea of coming to a great city. What does he do? He find out the place of all the world most of promise for him. Then he deliberately set himself down to prepare for the task. He find in patience just how is his strength, and what are his powers. He study new tongues. He learn new social life, new environment of old ways, the politics, the law, the finance, the science, the habit of a new land and a new people who have come to be since he was.[2]

As is apparent from Van Helsing's observation about history, Dracula mastered the skill of learning and adapting to the events of his living life. Whenever he lost, he analysed the gained experience and used it in order to succeed next time. In accordance with this pattern, he analysed his current situation. Apparently, he either realized that Transylvania no longer provides enough

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[1] Stoker, *Dracula*, 217.
[2] Stoker, *Dracula*, 357.

resources of food supply or he seeks to expand his territorial power. Either way, even though he possesses a certain social status and power there, he decided to move to England due to the prospect of better living conditions. Bram Stoker does not provide any further information about Dracula's actions - everything is presented as Van Helsing's speculation - however, it would be logical to assume that he waited with his plan for the time when vampire species would be only a superstition and, therefore, he would be able to "invisibly invade" new territory and use the advantage of surprise and unknowingness. After all, vampires are immortal, and time is no obstacle for them. This assumption is partially confirmed in the second part of the passage. First of all, Dracula made an analysis of his strengths and weaknesses, which indicates a systematic approach based on centuries of experience, and then he commences to learn a new language, history, cultural and social norms, and also new habits and lifestyle in order to blend. Such a preparation, if meant to achieve perfection, requires an immense amount of time. In summary, he willingly learns and adapts in order to fit the new environment

To add, the strength of Dracula's abilities is further enlarged by Van Helsing's brief presentation of facts about Count's living life. Bram Stoker decided to portray his villain not only as a supernatural demon, which is a priori a guarantee of a certain degree of cunningness, but he also gave him a sort of academic background, for which he could be considered an ancient scientist:

> He was in life a most wonderful man. Soldier, statesman, and alchemist. Which latter was the highest development of the science knowledge of his time. He had a mighty brain, a learning beyond compare, and a heart that knew no fear and no remorse. He dared even to attend the Scholomance, and there was no branch of knowledge of his time that he did not essay. Well, in him the brain powers survived the physical death. Though it would seem that memory was not all complete. In some faculties of mind he has been, and is, only a child. But he is growing, and some things that were childish at the first are now of man's stature. He is experimenting, and doing it well.'[1]

The list of Dracula's mastered disciplines and acquired knowledge emphasizes his quality of a great strategist and planner. He is almost depicted as a direct opposite, an evil scientist, to Van Helsing. They form a kind of a binary opposition – one is good and preserving life, while the other is evil and destroying life. Nevertheless, both are extremely intelligent. Moreover, Dracula's ability to survive and adapt is highlighted by overcoming his physical death. Such an event must have been a very traumatic experience and he was forced to start from the beginning

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[1] Stoker, *Dracula*, 337.

for he had to adjust to completely new biological needs and lifestyle like drinking blood, avoiding daylight and other instances which are in direct opposition to his previous way of life. As Van Helsing observed, Dracula was suddenly like a child that had to learn new norms and imperatives.

For that reason, Dracula's situation, and Victor Frankenstein's monster's as well, could be interpreted as a theme inspired by John Locke's theory of mind. John Locke belonged to prominent philosophers whose theories substantially contributed to the formation of Victorian period.[1] Simply, his theory, specifically the part working with the term *tabula rasa* – meaning "clean slates", is based on the premise that every child is born innocent and it is the experience gathered throughout the life that makes a human being either good or bad.[2] Accordingly, Dracula and Frankenstein's monster fit the description. Both, when being "born" or "made" as a monster, are introduced to a new world and have to find their own way of dealing with it. They have either none or only an incomplete memory of the previous life and have to acquire skills and knowledge from scratch. Even though it would be more suitable not to call them a "clean slate" but rather an "erased slate", still, they match the definition of a "newly born" being that needs to gain experience. And especially in the case of Frankenstein's monster, it is the experience gained through life that made it a real "monster".

To add to this similarity, Bram Stoker, via Van Helsing's observation, explicitly defined Dracula as a type of a destructive force and a criminal:

> There is this peculiarity in criminals. It is so constant, in all countries and at all times, that even police […] come to know it empirically, that it is. That is to be empiric. The criminal always work at one crime […] and who will of none other. This criminal has not full man brain. […] And until he have the purpose to do more, he continue to do the same again every time, just as he have done before! […] The Count is a criminal and of criminal type. Nordau and Lombroso would so classify him, and qua criminal he is of an imperfectly formed mind. Thus, in a difficulty he has to seek resource in habit. His past is a clue, and the one page of it that we know […] tells that once before, when in what Mr Morris would call a 'tight place,' he went back to his own country from the land he had tried to invade, and thence, without losing purpose, prepared himself for a new effort. He came again better equipped for his work, and won. So he came to London to invade a new land. He was beaten, and when all hope of success was lost, and his existence in danger, he fled back over the sea to his home.[3]

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[1] M. V. C. Jeffreys, "John Locke," *The British Medical Journal* 4, no. 5935 (October 1974): 34-35.
[2] Neal Wood, "Tabula Rasa, Social Environmentalism, and the 'English Paradigm'," *Journal of the History of Ideas* 53, no. 4 (October – December 1992): 648-649.
[3] Stoker, *Dracula*, 380-381.

Dracula is classified as a criminal and the source of his acting is not some supernatural and diabolical plan to conquer the world, on the contrary, his actions have already been observed and found in other types of non-supernatural persons. Dracula's actions are therefore explained by the use of empiric science, which provides it with a more credible background than any superstitious legend about vampires could give. For that reason, *Dracula* is not a narrative about an abstract supernatural villain who is a priori doomed to failure in accordance with the majority of thematically similar works of fiction, like legends and dark fairy-tales, in which the good always defeats the evil. On the contrary, the villain possesses real-life qualities and his actions are not so fictional. After all, the desire to conquer new territory in order to gain power and resources was quite a common practice during colonial eras. In other words, Dracula is no longer just a supernatural being from a foreign legend, but a possible species that emerged via the means of evolution and performs logical actions.

To continue with *Strange Case of Dr Jekyll and Mr Hyde*, Robert Louis Stevenson's novel also contains elements of Darwin's influential work. To be specific, it uses ideas from the subsequent interpretation of Darwin's work – *Darwinism* and more importantly, *social Darwinism*. As Niles R. Holt explained, many social Darwinians, of whom only a few were scientists, used especially the definition of survival of the fittest and natural selection in order to formulate the basic principles governing mankind in regard to politics, society and economics. The majority of them believed that elites and the powerful ones were truly "fittest" in a society and many of them went so far in their opinions that they were convinced about the superiority of the Anglo-Saxon race.[1] However, it should be noted that social Darwinism was a mix of more theories than just natural selection.[2] In fact, Darwin was appalled that his work was misused for justifying cheating and getting power at any cost[3], for he believed that it was morality that helped the human race to survive as a species and acquire such a dominant position.[4] However, regardless of Darwin's own definition of evolution, the construct of social Darwinism became one of the most prominent source of ideas.

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[1] Holt, "Darwinism: Evolution or Revolution?," 32.
[2] James Allen Rogers, "Darwinism and Social Darwinism*," Journal of the History of Ideas* 33, no. 2 (April - June 1972): 280.
[3] Rod Preece, "Darwinism, Christianity, and the Great Vivisection," *Journal of the History of Ideas* 64, no. 3 (July 2003): 404.
[4] Gloria Mc Connaughey, "Darwin and Social Darwinism," *Osiris* 9 (1950): 406.

There are several occasions in *Strange Case of Dr Jekyll and Mr Hyde* which have references to evolution. Especially parts depicting violent behaviour of Mr Hyde are connected to Darwin's work: "And next moment, with ape-like fury, he was trampling his victim under foot and hailing down a storm of blows, under which the bones were audibly shattered and the body jumped upon the roadway."[1] Clearly, when Mr Hyde was killing his victim, he was described as an ape. Even the whole violent act resembles, perhaps, fighting gorilla, which jumps and uses its fists. In other words, the whole passage both figuratively and literally works with the theme of evolution and its premise that mankind is descended from apes. The reason for use of such a simile is to emphasize the primordial and primitive essence of Mr Hyde. As it explained by Dr Jekyll, Mr Hyde stands for the evil and brute part of human nature, which has been suppressed under the layer of morality, ethics and other qualities of social conventions and civilization in general. Therefore, transforming into Mr Hyde means going back to the basic self which has not been nourished and improved for millennia.

In addition, the whole theme is also put into context with religion. For example, when Dr Jekyll's servant Mr Poole depicts his encounter with Mr Hyde, he uses an interesting choice of words:

> 'Well, when that masked thing like a monkey jumped from among the chemicals and whipped into the cabinet, it went down my spine like ice. Oh, I know it's not evidence, Mr Utterson. I'm book-learned enough for that; but a man has his, feelings, and I give you my Bible-word it was Mr Hyde!'[2]

Again, Mr Hyde is compared to a monkey. However, in this instance, the reference is used not only for illustrating the connection to Darwin's theory of evolution, but also for creating the contrast between evolution presented by social Darwinists and the church. To be specific, the contrast between moral and immoral. In this instance, and throughout the novella, Mr Hyde and his ape-like aura and behaviour are presented as something wicked, something which gives shivers to decent men and should be avoided if not eliminated. On the other hand, the influence of civilization is sometimes equalled to the church. Specifically, it is understood that morality and the source of almost all values come from religion, which helped men to evolve into kind, decent and intelligent beings. This assumption is supported not only by Dr Jekyll own words about faith in God in his narrative chapter, but also throughout the novella in minor occurrences.

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[1] Stevenson, *Dr. Jekyll and Mr. Hyde*, 24.
[2] Stevenson, *Dr. Jekyll and Mr. Hyde*, 45.

For example, the passage above contains an expression "Bible-word" which is used by Poole to defend and emphasize his statement that ape-like Mr Hyde is evil and vicious. In other words, Mr Hyde is a true villain in the narrative who stands in opposition to a society.

In addition, the origin of villainous Mr Hyde is not clear at the beginning of the novella. However, there are several hints. For example, the description of Dr Jekyll's laboratory provides a possible foreshadowing:

> The doctor had bought the house from the heirs of a celebrated surgeon. […] (Mr Utterson) eyed the dingy, windowless structure with curiosity, and gazed round with a distasteful sense of strangeness as he crossed the theatre, once crowded with eager students and now lying gaunt and silent, the tables laden with chemical apparatus, the floor strewn with crates and littered with packing straw, and the light falling dimly through the foggy cupola. At the further end, a flight of stairs mounted to a door covered with red baize; […] It was a large room, fitted round with glass presses, furnished, among other things, with a cheval-glass and a business table, and looking out upon the court by three dusty windows barred with iron.[1]

The provided description of the laboratory seems as if it was a typical gothic prison secluded from the outer world. Therefore, it enhances a feeling that something bad and wicked is connected to the place and it should have never got out. Additionally, the place is even connected to experimental performers due to its former owner, since the laboratory includes even a theatre for audience watching surgery. However, in connection to Dr Jekyll and his chemistry-driven and deformed Mr Hyde, it almost evokes a feeling of a secret freakshow. There is a deformed individual, a loathing audience and a theatre to present the outcome of Dr Jekyll's doing.

A hint of an experiment that went wrong could be even found in the description of Dr Jekyll's workplace:

> The powders were neatly enough made up, […] and when I opened one of the wrappers I found what seemed to me a simple crystalline salt of a white colour. The phial […] might have been about half-full of a blood-red liquor, which was highly pungent to the sense of smell and seemed to me to contain phosphorus and some volatile ether. At the other ingredients I could make no guess. The book was an ordinary version-book and contained little but a series of dates. […] Here and there a brief remark was appended to a date, usually no more than a single word: 'double' occurring perhaps six times in a total of several hundred entries; and once very early in the list and followed by several

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[1] Stevenson, *Dr. Jekyll and Mr. Hyde*, 28.

marks of exclamation, 'total failure!!!' […] Here were a phial of some tincture, a paper of some salt, and the record of a series of experiments that had led (like too many of Jekyll's investigations) to no end of practical usefulness.[1]

The list of Dr Jekyll's instruments and ingredients, of which some are even unknown to the observer Mr Utterson, confirm not only a connection to chemistry, but more importantly it even induces an image of an alchemist. Suddenly, the origin of Mr Hyde gets a more mysterious background and the reader might unveil the truth. Even though all instances pointing to Jekyll-Hyde transformations, in accordance with a desire for rational explanation, are presented as a disease, still, Mr Hyde already functions as an unnatural monster. Explanations like suffering from a malady causing a deformation[2], cerebral disease[3] and hysteria[4] are not enough anymore. It is already clear to the reader that the real cause of events is not easily explainable, but it is something connected to the laboratory and its mysterious and secret experiments which triggers imagination.

In summary, the Gothic uses science not as a main theme, but only as a supportive tool. Therefore, the reader will never be acquainted with any elaborated scientific work and will never be introduced into any scientific theory in great details. The reason is that the purpose of the Gothic is different than, for example, science-fiction. A science-fiction reader expects that a new technology will be presented to him and, which is equally important, he will be given an explanation of that technology so the narrative would become "realistic". The Gothic, on the other hand, is not produced in order to invent new potential possibilities in science, but to frighten its readership. Therefore, the Gothic narrative is relatable to its current time period and if science is used, it is just a tool. There is no need for a detailed explanation because its audience consists mainly of common people and not exclusively scientists or, in modern terminology, geeks.

In other words, if science is used in gothic fiction, it only operates on the level of general public's common knowledge. For that reason, Mary Shelley did not have to invent an elaborate process of animating Frankenstein's monster. Instead, she could only hint and present the right amount of information for her readership to understand the connection with galvanism.

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[1] Stevenson, *Dr. Jekyll and Mr. Hyde*, 53-54.
[2] Stevenson, *Dr. Jekyll and Mr. Hyde*, 43-44.
[3] Stevenson, *Dr. Jekyll and Mr. Hyde*, 54.
[4] Stevenson, *Dr. Jekyll and Mr. Hyde*, 56.

Similarly, Bram Stoker did not have to create an evolutionary tree showing how vampires diverged from humans. Instead, his interesting connection between a vampire species and the environment of Transylvania, which is to a degree quite vague, is enough for a reader to make a "realistic" link between ancient folklore and modern scientific society. And lastly, Robert Louis Stevenson did not have to provide a specific chemical formula for the transformations of Dr Jekyll. Instead, he used the character of Dr Lanyon to summarise the whole experiment with dismissing words: "What he told me in the next hour, I cannot bring my mind to set on paper. […] My soul sickened at it."[1] In other words, the Gothic pays attention not to science itself, but to its actual and potential outcomes.

Furthermore, this trend of omission of specific processes continues even to the present day. Therefore, the audience of *The Rocky Horror Picture Show* does not have to be explained how the character of Rocky was constructed or how the transmit beam actually works. Likewise, when the TV show *Supernatural* incorporated mismanaging of the flow of time into its story about magic and supernatural monsters, it did not provide a lecture-like explanation of its cause. It was simply labelled as "parallel universes" and "temporal paradox" with a presumption that the audience already knows those terms from sci-fi production.

In conclusion, the 19th century Gothic transformed its themes and readjusted its elements in order to reflect a new scientific era. In effect, achievements and approaches like galvanism, Davy's chemistry, hypnoses, Darwinism, and other provide a rational explanation for an "irrational" gothic narrative. Altogether with archetypal characters, the Gothic creates new versions and variations, new paroles, that follow the same pattern and scheme, the same langue, in order to address the contemporary sources of fear and fulfil its primary function – to scare its audience.

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[1] Stevenson, *Dr. Jekyll and Mr. Hyde*, 57.

Conclusion

The Gothic has provided fear in many variations throughout the history and as science became more prominent, it simultaneously became a source of fear. This paper provided not only a compilation of the theoretical background, but also an analysis depicting authors' either conscious or unconscious strategies of using science as a tool for invoking horror and terror.

By applying structuralist methods, it becomes clear that in order to scare the readership, gothic fiction follows certain rules and patterns. In other words, the presence of science in the Gothic since approximately the 19th century is langue – a rule, or in this case more specifically, a theme, which is present in all analysed novels and texts mentioned in the thesis. Furthermore, each individual narrative modifies it – uses it as parole – for the most effective scary storytelling. In order to do so, authors of the Gothic have been working with several features typical for the genre since its beginnings, however, all of them appear in slightly different combinations and modifications in accordance with its current time-period. Nevertheless, there are certain patterns and structures that are common for the majority of them, or at least for the analysed texts.

One of the features of the Gothic, which is the ability to change its setting and details accordingly to the current era, provides an opportunity to go beyond traditional sources of fear, such as ghosts and other supernatural instances, and accompany them with contemporary and more credible background, which paradoxically makes an involved supernatural elements more realistic. Therefore, the Gothic may react to actual threats and events in a society and culture. In effect, the thesis presents four basic structures, paroles, in the analysed narratives, which are the coexistence of religion and science in a narrative, the presence of an irresponsible scientist, the presence of another scientist as counterbalance, and the presence of a monster, which is in some way connected to current scientific approaches and theories.

Firstly, the coexistence of religion and science in the Gothic partially reflects the cultural situation in Victorian Britain. Specifically, the 19th century experienced an ongoing growth of science, which had already started in the Age of Enlightenment, and brought a public dispute between scientists and the church. In general, the influence of both parties resulted in several factors helping to incorporate science into the Gothic. Especially popularizers provided general public with knowledge of science at the level of basic information and notion of most important

disciplines and theories, and, simultaneously, the emergence and rise of agnosticism had its impact on gothic narratives. Due to this situation, gothic fiction was able to incorporate science. To be specific, readership was sufficiently aware of various theories required for comprehension of references and similarities to science and, simultaneously, agnosticism provided a suitable bridge between supernatural elements and rational science. Therefore, the resulting mix was very often used as a support for narrative's meaningfulness. It could have been either used in order to open a discussion on morality of unlimited and wild scientific progress, as in the case of *Frankenstein* and *Strange Case of Dr Jekyll and Mr Hyde*, or for depicting common fear existing in a society, as in the case of *Dracula* and its fear of diseases and death.

Secondly, the Gothic incorporated two archetypal characters – an irresponsible scientist and another scientist as his counterbalance. An irresponsible scientist shows possible inspiration in the archetype of Faustus since both of them want to obtain obscure knowledge via dubious and dangerous process. In addition, an irresponsible scientist could also be considered a madman accordingly to Victorian diagnoses. Therefore, an irresponsible scientist, namely Victor Frankenstein, Dr Jekyll and Dr Seward, is typically a brilliant genius, but reckless in his behaviour and caution towards risks. In addition, even though his initial hypothesis and goals do not have to be necessary evil, it is his irresponsibility which leads him towards disaster. His eventually evil doing is emphasized due to the presence of his counterbalance. There is always another scientist, very often advocating for a completely different approach, who is usually in direct opposition to the irresponsible scientist. In addition, the character of a scientist playing role of counterbalance could be interpreted as the archetype of a 'wise old man' who provides the protagonist with an advice and right direction. However, the Gothic requires a tragedy. Therefore, despite providing valuable observations and warnings, the irresponsible scientist usually fails to listen to an advice. For that reason, Victor Frankenstein and Dr Jekyll pay with their own lives, even though it could have been avoided by listening to advice and warnings. Only Dr Seward experiences a relatively happy ending because he managed to overcome his own ego and take into consideration another point of view provided by his counterbalance Van Helsing.

Thirdly, a typical feature of a monster is still present, but modified. As time-period and its fears changed, a monster does not have to be only a supernatural being like a ghost, a spirit or a demon. Instead, a monster is almost always accompanied with a scientific explanation, which

makes it more credible and realistic. The reason is that as a monster becomes a possible reality, it also becomes more frightening. Therefore, Victor Frankenstein's monster is not a Medieval undead, but a result of an experiment using knowledge of galvanism and Davy's chemistry. Similarly, Mr Hyde is not a demon. Instead, he is also a result of a reckless experiment, specifically, of chemistry combined with drug usage and, therefore, anyone can experience the same fate. Interestingly, even a typical supernatural being – a vampire – is given a rational explanation by Van Helsing. Count Dracula is put into context of Darwinism and is explained as a peculiar species that managed to adapt to its environment.

In summary, the thesis provided a list of possible paroles of science in the Gothic. The analysed texts in combination with theoretical knowledge of Victorian Britain show that the Gothic reacted to cultural events and adapted to new sources of fear in a society. Specifically, one of them was clearly the growing impact of science. Therefore, every gothic narrative since Victorian times might be expected to involve a scientist, his laboratory and a monster connected to some experiment.

Resumé

Tato diplomová práce se zabývá funkcí vědy jako parole (mluvy) v gotické próze, a to zejména v britské literatuře viktoriánského období a okrajově i v dalších žánrově spjatých dílech jak britské, tak i americké produkce. Téma vychází ze základního faktu, že gotický román by měl čtenáři poskytovat pocit strachu, a rovněž z předpokladu, že vědecký pokrok 19. století tento pocit pomáhal vyvolat.

Nicméně cílem této práce není zkoumat příčiny a důvody, proč se čtenáři rádi bojí a proč byl gotický román tak populární, ale cílem je objasnit, jak je narativ díla vystavěn a s jakými nástroji jeho autor pracoval, aby dosáhl kýženého cíle vyvolání strachu. Jinými slovy jsou předmětem zkoumání zdroje strachu soustředěné kolem vědy typické pro Velkou Británii v 19. století a jak s těmito prostředky autoři gotické prózy dokázali manipulovat. Tudíž z podstaty analýzy, která je založena na strukturalistickém přístupu, byly jako primární zdroje zvoleny díla Frankenstein od anglické spisovatelky Mary Shelley, Podivný případ Dr. Jekylla a pana Hyda od skotského autora Roberta Louise Stevensona a Drákula od irského autora Brama Stokera. Zároveň je třeba dodat, že práce není tradičně rozdělená na teoretickou a analytickou část, nýbrž jsou obě části sloučeny v jeden celek.

Samotná práce je uvedena vhledem do strukturalismu. Tato kapitola poskytuje souhrn nejdůležitějších myšlenek a základních termínů Ferdinanda de Saussura, jehož lingvistická teorie položila základ celému strukturalismu a vychází z ní i strukturalistická literární teorie. Jsou zde především zmíněny termíny francouzského původu langue (jazyk) a parole (mluva), a rovněž i pojem binárních opozic.

Všechny tyto termíny jsou zároveň doplněny o názorné a praktické příklady. Je zde vysvětleno, že zatímco langue, jednoduše řečeno, je ve strukturalistickém pojetí chápán jako jedno určité pravidlo či vzorec, tak parole je samotná realizace langue, tedy celá škála možných provedení daného pravidla. Jako příklad je uvedeno pravidlo, tedy langue, že každé dílo by mělo obsahovat hlavní zápornou postavu, a její obdobou, tedy parole, mohou být Darth Vader, Lord Voldemort, či Heathcliff. Nadále je na jazykových a literárních příkladech vysvětlen pojem binární opozice. Stručně řečeno, tento termín pojednává o protikladech a o tom, že význam jednoho slova, či prvku v díle, je zároveň podmíněn i významem jeho protipólu.

Poté je věnován prostor i strukturalismu jako ryze literární teorii. Pro tyto účely byl vybrán přístup Northtropa Frye, jenž se snaží o co nejvíce objektivní a systematickou analýzu literatury, jak je to jen možné. Jinými slovy omezil subjektivní interpretaci díla na absolutní minimum. Jeho teoretické poznatky jsou rovněž uvedeny a nejvíce pozornosti je věnováno především jeho odstupu od subjektivní interpretace, rovněž teorii mýtů, a především teorii archetypů. Je třeba dodat, že pro účely analýzy v této práci byl zvolen právě tento objektivní a věcný přístup.

Po strukturalismu následuje kapitola pojednávající o gotické próze. Cílem této kapitoly je podat základní a obecné informace ohledně žánru a zároveň dodat kompletní kontext pro analýzu konkrétních výskytů parole. V prvé řadě je gotický román zasazen do historického kontextu romantismu. Tudíž je zmíněn postoj k tomuto žánru od předních autorů tohoto období a rovněž i stereotypy doprovázející populární literaturu. Nadále je věnována pozornost jednotlivým typickým prvkům. Například je zde zmíněna přítomnost nějakého spouštěče strachu a rovněž je i přednesen možný rozdíl mezi chápáním pocitů „horor" a „teror", který je založen na tvrzení autorky Anne Radcliffe. Samozřejmě je i uveden výčet nejčastějších a téměř fundamentálních náležitostí gotického románu, jako je například vazba na středověk, pocit izolace, uvěznění, nadpřirozeno a především monstrum.

Důležitá je i schopnost gotické prózy se přizpůsobit moderní době. Jinými slovy je tento žánr, ačkoli užívající stejné struktury a vzorce příběhu, schopen pozměnit své detaily a dílčí prvky tak, že reaguje na neustále se nově objevující zdroje strachu a hrozby typické pro každé historické období. Tudíž je vcelku pružný a vždy aktuální. V praxi to tedy znamená, gotický román 19. století má jako langue stanovenu přítomnost vědy a jako parole jsou zde jednotlivé teorie a disciplíny vyskytující se v jednotlivých dílech. Tyto případy jsou popsány dále.

Následující kapitoly se zabývají konkrétními projevy vědy jako parole, tedy jako strukturami společnými pro daná díla. Jako první v řadě je popsáno soužití vědy a náboženství, potažmo i církve, v gotickém románu z 19. století. Tato struktura je uvedena historickým kontextem, kdy ve viktoriánské společnosti získala věda velký vliv. Ve spojení s literaturou je věnována pozornost především skupině autorů, tzv. „popularizers", kteří ve svých dílech pracovali s tehdejšími vědeckými teoriemi a poznatky, čímž veřejnosti přibližovali jinak nesnadno pochopitelné znalosti vědy. Zároveň do historického kontextu patří slábnoucí vliv církve, a naopak rostoucí vliv nově formulovaného agnosticismu. Ve výsledku tedy dochází k jevu, kdy

„nadpřirozená" gotická próza může pracovat s racionální vědou, protože průměrný čtenář má díky „popularizers" dostatečný všeobecný přehled k pochopení vědeckých referencí, a zároveň myšlenka agnosticismu dovoluje vzájemnou koexistenci obou úhlů pohledu. Analytická část této kapitoly následně názorně ukazuje, jak je tato struktura soužití vědy a náboženství uplatňována. Například v dílech Frankenstein a Podivný případ Dr. Jekylla a pana Hyda je užita k vyvolání debaty o morálnosti bizarních experimentů a obecně nekontrolovaného pokroku vědy, zatímco Drákula na této struktuře staví samotný smysl boje proti upírům, kdy jsou jako zbraň použity znalosti transfúze krve, hypnózy, nemocí či chemie.

Poté jsou v následujících dvou kapitolách rozebrány dvě archetypální postavy, a to nezodpovědného vědce a vědce, který slouží jako jeho protiváha. Postava nezodpovědného vědce patrně vychází z archetypu Fausta, nýbrž oba dva chtějí dosáhnout téměř až tajemných znalostí, a to za pomoci nebezpečných a nespolehlivých prostředků. Navíc, v kontextu viktoriánské psychologie, je možné usoudit, že tato postava je ještě nebezpečnější než samotné monstrum, jelikož nezodpovědný vědec totiž nepáchá zlo vědomě. Ve skutečnosti jsou jeho počáteční pohnutky a hypotézy často vcelku pozitivní. Například Viktor Frankenstein původně chtěl pomoci světu od nemocí a smrti, Dr. Jekyll chtěl vyřešit niterní problémy s identitou, a Dr. Seward v Drákulovi chtěl dosáhnout pokroku na poli psychických onemocnění a stavů. Nicméně, touha po dosažení svého cíle v kombinaci s nezodpovědností vedla k neopatrným krokům, což vyústilo v tragédii.

Na druhé straně je postava jiného vědce, či vědeckého přístupu, který je v rozporu s jednáním nezodpovědného vědce. Tato postava je pravděpodobně založena na archetypu moudrého starce, který hlavní postavě v příběhu poskytuje potřebnou radu a nadhled. Nicméně gotická próza vyžaduje nějakou formu tragédie, tudíž postava nezodpovědného vědce často těchto upozornění nedbá. Přítomnost této archetypální protiváhy je opět ukázána na příkladech z textů. Například protiváha Viktora Frankensteina je zprostředkována skrze univerzitního profesora, který otevřeně zkritizoval Frankensteinovo dosavadní samostudium a jeho jednání zdůraznilo rozdíl mezi oběma přístupy. Protiváha Dr. Jekylla je prezentována skrze jeho dlouholetého přítele Dr. Lanyona, který se ho marně snažil přesvědčit o škodlivosti jeho vědeckého směru a jeho posmrtná verze příběhu opět vyzdvihla propastný rozdíl mezi oběma přístupy k vědě. Menší výjimku tvoří Dr. Seward z Drákuly. Ačkoli je především z počátku skeptický k metodám a tvrzením své protiváhy Van Helsinga, tak z povahy vcelku pozitivně laděného

románu je schopen překonat své ego a otevřít svou mysl alternativním myšlenkám. Díky tomu unikl stejnému tragickému osudu jako postavy z předešlých dvou děl.

Následně je pojednáno o typickém prvku gotické prózy – o monstru – a to z hlediska kontextu vědy. Všechna monstra z analyzovaných děl, konkrétně Frankensteinovo monstrum, pan Hyde a hrabě Drákula, jsou dány do souvislosti s vědeckými teoriemi, vědci, metodami a praktikami, které byly běžné ve viktoriánském období. Tudíž Frankensteinovo monstrum vykazuje podobnosti spolu s galvanismem, přednáškami Giovanniho Aldiniho a teorií galvanické chemie Humpryho Davyho. Především právě Davyho teorie, kde se snažil vyřešit oživení mrtvé tkáně, a Aldiniho přednášky, kdy pomocí elektřiny uváděl mrtvá těla zvířat a později i člověka v pohyb, byly patrně velkou inspirací pro dílo Frankenstein. Co se týče Drákuly, tak toto dílo vykazuje podobnosti s teorií evoluce od Charlese Darwina, kdy postava hraběte Drákuly je vysvětlena jako živočišný druh, který se dokázal adaptovat na své prostředí, a samotná postava Drákuly je vysvětlena jako přežití nejsilnějšího. Nadále Podivný případ Dr. Jekylla a pana Hyda vykazuje paralely s darwinismem, konkrétně sociálním darwinismem. Zde je pan Hyde popsán jako projev primitivních stránek lidské povahy, které byly pomocí civilizace a kultury potlačeny, a nastoluje otázku přežití nejsilnějšího v moderní lidské společnosti.

Na závěr je vysvětleno, proč gotická próza užívá vědy pouze v obecné rovině. Důvodem je nejspíše to, že cílem je především navození atmosféry děsu, hrůzy a strachu. Tím pádem dílo nemusí dopodrobna vysvětlovat danou vědeckou teorii či jev, ale postačí si s takovou mírou znalostí, která se vyskytuje u průměrného čtenáře. Jinými slovy, cílem není čtenáře vzdělat, ale vyvolat v něm strach.

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