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Elephant in the Dark:

Science Fiction's Existential Use of the
Sublime, Grotesque, and Genremorphs

in

Shelley's *Frankenstein* and Kubrick & Clarke's *2001*

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Introduction:**Science Fiction's Existential Dilemma**

A group of blind men touch an elephant in the dark. However, they are not familiar with the creature. In an effort to understand its complete form, each one feels a different part, but only one part: one blind man describes the tusk like a curved horn; another claims the trunk is like a live tree branch; a third hugs a leg which he describes as a pillar. Yet, when the men try to arrive at a consensus of the creature's entirety, they completely disagree. Their perspectives and conjectures render incompatible. This parable traces a long oral tradition across cultures, and befittingly extends to the formidable task of defining Science Fiction (SF).

The debate concerning the proper definition of SF is extensive. Ironically, the inaugural edition of the *The Encyclopedia of Science Fiction* (1979) by John Clute and Peter Nicholls gave over twenty definitions¹. By 1993 the editorial staff had only whittled the definitions down to eleven, where that number remains today (Fowler 1). Most surprisingly, Clute and Nicholls admit irresolution in their conclusion regarding the definition of SF, stating:

“There is really no good reason to expect that a workable definition of SF will ever be established. Historically, it grew from the merging of many distinct genres, from utopias to space

¹ Including Hugo Gernsback's first description of 'scientifiction' which first appeared *Science Wonder Stories* (June 1929) where he described SF as the “Jules Verne, H.G. Wells and Edgar Allen Poe type of story—a charming romance intermingled with scientific fact and prophetic vision...”

adventures. Instinctively, however, we may feel that if SF ever loses its sense of fluidity of the future through basic conceptual vagueness, then the center of its structure may implode.” (314)

While declaring SF will never have an established definition is defeatist, the majority of current SF definitions are primarily unsatisfactory for two reasons:

1) Most attempts to define SF can be too contrived, metaphorical, and exhaustive; they only further complicate the definitive intent. For instance, Robert Scholes is a Yale and Cornell-educated literary theorist who attempted to substitute Science Fiction’s denomination in 1975 in his academic essay, “Structural Fabulation.” In Scholes’ pursuit to broaden the boundaries of what literature constituted the SF moniker, he defined structural fabulation as:

“...a fiction radically discontinuous to our known world, modified by an awareness of the universe as a system of systems, a structure of structures.” (4)

While noble in aspiration, the definition fails to narrow SF’s objective, constitution, and is bluntly an amorphous conception. Scholes’ structural fabulation only elucidates SF as an alienated and orphaned genre, but not as a distinct category with an established rubric.

2) SF definitions can be shallow, inconclusive, and often miss something crucial. Firstly, one cannot say that SF is realism because it is not limited to the methods of realistic description, plot devices, or

characters. For opposing reasoning, SF cannot be classified as mythic (which includes Fantasy and Epic poetry) since it does not structurally operate in a synchronic or “timeless” dimension to preserve a specific cultural or religious didacticism; SF operates in worlds that are not absolute and where narrative variables change. Mythology’s repetitive universe is often static, and therefore anti-empirical: it inherently adopts an unreasonable, ironclad universe and refutes the scientific method applied with SF (Panshin 3). Additionally, SF cannot be classified as *modern* myth because it purposefully severs classical mythical ties. To illustrate, Victor Frankenstein’s Monster can easily be viewed as an evolution of the Golem: an animated anthropomorphic being created from clay. However, the Golem is dumb while Frankenstein’s Monster is distinctively depicted by Shelley to be more intelligent than its creator. Nor is it fair to compare SF to Fantasy, where the latter genre disregards the laws of the author's empirical world and escapes into an elementary, collateral realm indifferent toward plausibility. Lastly, SF cannot be purely described as ‘technological-scientific fiction’; this terminology would be more aligned with the aims of a scientific essay, where the sole purpose is hypothetical speculation without an accompanying narrative. Jules Verne, for example, tends to fall into this trap of scientific pedagogy, where his SF narratives are encumbered and diluted by voluminous, and mostly anthropological observations.

At its core, SF has typically been characterized as the literature of “What if...” or as famed SF author, Isaac Asimov, declared as a “literature of ideas.” Yet this conceit is as vague as the aforementioned definitions. All literature is an extrapolation of an idea—all forms of fiction depict “What if...” scenarios. Others have concluded SF composes narratives of the future, but most SF is often set in the present or an alternate history.²

SF may be difficult to define because it engages a problem of singular genre classification: is SF a genre subset or does it command a explicit narrative autonomy? Can SF be considered a Victorian Gothic incarnation, or does its roots stem further back? When exactly did SF become an independent genre? And how did SF, much like any budding genre, garner its own umbrella?

The purpose of this essay is not solely to define a distinct chronology of SF, but to systematize how the SF genre formed and distinguished itself. To accomplish this, I will identify and analyze two of the most cohesive, catalytic works which propelled the SF genre into self-sufficiency: Mary Shelley’s 1818 novel, *Frankenstein; or, The Modern Prometheus* (i.e. *Frankenstein*), and the Stanley Kubrick and Arthur C. Clarke 1968 film collaboration on *2001: A Space Odyssey* (i.e. *2001*).³ SF

² This can also be generically said for any fictional narrative, regardless of genre.

³ Written simultaneously, both *2001*’s screenplay and novelization influenced each other and were paralleled to match Kubrick’s ultimate production exhibited on screen; while minor differences are apparent, the film’s screenplay and visuals will be cited to encompass the seminal themes of this essay.

is a hyper-visualized medium, where a large percentage of its narrative, unlike other genres, is dedicated to world building. Consequently, it only seems appropriate to incorporate the cinematic aspect of SF. But both works, in each narrative medium, are indubitably the most coherent forms that all other SF works can aspire and be compared. Yet in order to establish SF as an independent genre, I will first examine the derivation of its conventions cannibalized from mythology, epic poetry, fantasy, the Enlightenment and Romanticism movements, and gothic romance/horror. After isolating and defining SF's core tenets, which include empiricism and Darko Suvin's Cognitive Estrangement Theory, Shelley's cautionary story of creation is proven to inaugurate a new literary era. The genre then extended its foothold with the cinematic achievement of Kubrick-Clarke's *2001*. Utilizing the existential use of stylistic devices, particularly the grotesque and sublime, both works explore the impact and inclusion of scientific perspectives in fiction. But most innovatively, these SF works imbued the grotesque and the sublime conceits into self-reflective archetypes neologized as 'genremorphs.' These genremorphs broke the fourth wall to ruminate on SF's agency, while subversively shepherded readers through the genre's strange new landscape, laws, and addressed the authors' own concerns.

Chapter 1:

Literary Origins: From Supernaturalism to Science

Mary Shelley's *Frankenstein* arguably gestated the first coherent and competent science-fictional form during the early 19th century. Most scholars will concede that while Shelley's well-documented intention was crafting a horror story to spook and impress her bookish peers, she inadvertently leaped into a new age of storytelling. She certainly benefitted from the good luck of having parents who were intellectual savants and to have married a great poet, Percy Shelley, with whose influence allowed *Frankenstein* to slip amongst publishers favoring Romanticist literature. *Frankenstein* was retroactively elevated by the contextual, sociopolitical, and technological changes occurring at the time. Scientific influences are blatant throughout the novel, which fused Shelley's canonical knowledge and her inquisitive preoccupation in emerging science; it was a marriage that, above all else, challenged a pervasive religious dogma in favor of scientific rationality.

SF Author and scholar, Brian Aldiss, presents the best case for Shelley as SF's first complete author in his authoritative history of the genre, *Billion Year Spree* (reiterated in his updated, *Trillion Year Spree*). He cites Shelley's inclusions of Milton, Goethe, and Erasmus Darwin as a conscious testimony that she is not just another Gothic novelist:

We can see the Faustian theme is brought dramatically up to date, with science replacing supernatural machinery... *Frankenstein* touches not only science but man's dual nature, whose inherited ape curiosity has brought him both success and misery. (36)

Shelley's tale, as Aldiss claimed, was a "Model-T SF drama with philosophical interludes" (iv). Memorable epiphanies were coupled with great naturalistic and narrative expanses, tundras, and other formidable earthly forces. Shelley exercised her intuitive perception of science, viewing it as a powerful entity, but also recognized the dangers of its advancement if uncontrolled.

In this consideration, her writing was ingrained within the quotidian mindset of people living and struggling to adapt to an industrialized world, and how they feared losing control in a postindustrial near-future. Shelley recognized that in order for the public consciousness to adopt radically different doctrines, they must fully comprehend scientific methodologies and its potential benefits.

Frankenstein incorporates many discoveries of the 17th, 18th, and 19th centuries, specifically the revolutionary discovery of electricity. While Benjamin Franklin would be the most renowned polymath who studied the scientific properties of electricity in the 1700s, other innovators within the medical community attracted Shelley's interest. She particularly gravitated to the research on animal electricity conducted by Luigi Galvani, a professor of Medicine and Anatomy at the University of

Bologna. In 1786, Luigi Galvani discovered that severed frog's legs twitched when he conducted an electric charge to them (Krischel). Galvani regarded these studies of animal electricity and dubbed its vital force "Galvanism." Galvani died in 1798, and his nephew, Giovanni Aldini, Professor of Physics at the University of Bologna, continued to defend his uncle's interpretation of animal electricity. Between 1800 and 1810, Aldini traveled through Europe (including Shelley's hometown of Somers Town, London) and performed electrical experiments on corpses. At the Royal College of Surgeons in London, Aldini galvanized the body of John Forster, a local inmate who had been executed for murder. Aldini proceeded to connect electrodes to Forster's body, where "the jaw began to quiver, the adjoining muscles were horribly contorted, and the left eye actually opened" (Hindle 17). An application of electrodes to the ear and rectum "excited in the muscle[s] contractions much stronger than in the preceding experiments, [so as] almost to give an appearance of re-animation." (18). Shelley's description of Frankenstein's Monster's animation, which was published 15 years after Aldini's account, is remarkably similar. Yet Shelley used the concept of reanimation and electricity to accentuate humanity's duality, not as a shock and awe gambit or an imaginary abomination.

Generally, scientific experiments are performed with altruistic intentions in mind. Yet a reverse, commonly negative affect is nearly always introduced. Just as science can end up creating dual reactions, say

nuclear power for fission energy or the atomic bomb, electricity holds this same dynamism more directly: electricity wields the power of magnetism, negative and positive forces pulling away from each other. Shelley appropriated electricity's duality to *Frankenstein*, most significantly to Dr. Victor Frankenstein's motives as they vacillated between magnanimous and self-serving. Shelley established Victor as an informed wanderer between worlds, transcending Victorian prudence into scientific enlightenment, but not yet immune to encountering its perils.

While SF clearly borrows elements from mythology, fantasy, and epic poetry⁴, SF channels the spirit of empirical knowledge with what English professor and SF anthologist, Eric S. Rabkin, termed “the scientific habits of mind” (3). Victor Frankenstein valued empirical knowledge for its altruistic means to “...search [for] the philosopher's stone and the elixir of life... banish disease from the human frame, and render man invulnerable...” (34). But philosophy would fail Victor in producing concrete results, so we follow him as he searches elsewhere. Shelley purposefully dedicates a substantial portion of the text to establish Victor's scientific credibility and dedication to empiricism. Victor transitions from metaphysics and philosophy, considered the “softer” sciences, to natural law (specifically chemistry). Subtextually through Victor Frankenstein, Shelley proposes:

⁴ Both *Frankenstein*'s subtitle references Greek Mythology and its epigraph quotes Adam's post-fall lamentation of God in Milton's *Paradise Lost*

In other studies you go as far as others have gone before you, and there is nothing more to know; but in a scientific pursuit there is continual food for discovery and wonder. (47)

Victor "...delighted in investigating the facts relative to the actual world," and believed true intellectual transformation "...required [one] to exchange chimeras of boundless grandeur for realities..." (31, 43). This was the only way to "pioneer a new way, explore unknown powers, and unfold to the world the deepest mysteries of creation" (4). Additionally, Shelley recruits Victor's Professor of Natural Philosophy at Ingolstadt, M. Krempe, to encourage his student in dismissing alchemy, mysticism, and antiquated spiritual teachers who "...promised impossibilities and performed nothing," and to instead:

"...Pour over the microscope, penetrate into the recesses of nature...command the thunders of heaven, mimic the earthquake, and even mock the invisible world with its own shadows." (44)

But this evolutionary intellectualism is not without its obstacles. Shelley cleverly insinuates that new modes of thought are challenging to accept, and uses treacherous metaphors throughout the novel to illustrate:

The ascent is precipitous, but the path is cut into continual and short windings, which enable you to surmount the perpendicularity of the mountain...The path, as you ascend higher, is intersected by ravines of snow, down which stones continually roll from above...
(110, *underline emphasized*)

Although Victor owed much of his investigative zeal to Cornelius Agrippa and Albertus Magnus, he had to evolve his thought processes when comprehending the modern demythologized world. At the beginning of the 19th century, both Shelley and Victor harnessed the fundamental logic of Descartes and invested in the forward thinking of Erasmus Darwin whose experiments also inspired Shelley's novel. Furthermore, Shelly used the mathematical worldview of Galileo and the gravitational physics of Newton to bring brought the mythic, spiritual protagonists of the past crashing to reality.

The transformation of Victor and Shelley's ideologies catalyzed by a shifting sociopolitical landscape, one that was drastically influencing literature ever since the 1600s. Scientific advances within Europe and America sponsored new beliefs in natural law, confidence in human reason, and an increased application of scientific methodologies to society, politics, and—in a ruinous manner—to religion. Previously unthinkable revolutions ravaged England from 1642 to 1651 (English Civil War) and much of Europe in 1688 (The Nine Years' War); kings with divine rule were threatened with execution or exile, and the Roman Catholic Church was reduced to merely wielding a theoretical authority (Panshin 8). Soonafter, the Age of Reason and Enlightenment movements mobilized intellectual change by opposing abuses in church and state, and debunking long held superstitions with a newly held faith in empiricism. Yet amidst the scientific rationalization of nature and the Industrial Revolution, the

second half of the 18th century through the 19th century strayed, cultivating an artistic revolt that was embodied in Romanticism. Many artists and authors sought to emphasize human emotion in relation to the sublimity of untamed nature. This was considered to be a direct opposition to scientific rationalization and the Industrial Revolution, as Romantic literature implored its readers to suspend belief for the importance of self-examination. Supernatural and medieval tropes began to creep back into the empirical world, becoming known as gothic romance/horror.

In order to escape the urban sprawl and industrial confines, Gothic literature featured remote settings and brooding protagonists struggling against anomalies of nature, much like Victor does against his creation (Brantlinger 4). But does that mean Shelley's *Frankenstein* is a Gothic manifestation and not purely SF, or is it an unconscious cross-fertilization of the two: is it truly the "Model-T" of its time as Aldiss claims, where the components existed before, yet it was Shelley first to assemble a complete, pioneering form?

According to SF critic and Zagreb University professor, Darko Suvin, while Shelley launched *Frankenstein* in the tradition of a Gothic story—mainly Victor's hideous creation, his attempted usurping of God, and the corruption of Nature—it's the Monster's eventual rise to sentience and conscious acknowledgement of his failed social assimilation that is diametrically opposed to a purely Gothic point of view. Suvin, who holds the first doctoral degree in Science Fiction Studies, postulates the

Monster's narrative moves *Frankenstein* away from the Gothic and toward SF because it identifies the Monster as not something supernatural, spiritual, or mythological, but more complex, intelligent, and rational. Suvin views Gothic literature and SF as directly antithetical. Firstly, SF utilizes plausible novelties or inventions called "novums" to authenticate the story's potentiality, while Gothic literature is "anti-cognitive." Gothic literature, unlike SF, aligns physical laws with supernatural feats. Not only is this incongruous, but both the concept of cognition and the supernatural are treated as having equal merit. Suvin contends that SF does not abide by this pairing. SF values cognition—that is, testable knowledge or valid logic—above all else, especially the supernatural. With Shelley at the oars, *Frankenstein* acts as a ferry between this change in value by departing from the Gothic to SF throughout the trajectory of the novel.

Chapter 2:**Novums and the Negative Apocalypse**

Suvin advocates that “SF is distinguished by the narrative dominance or hegemony of a fictional ‘novum’ (i.e. novelty, innovation) validated by cognitive logic” (Suvin 3). The central novum of any SF work has to be within the bounds of scientific reason. If a work contains a novum outside “cognitive logic” (i.e. a magical flute that resurrects dead unicorns), it would be incorrect to classify the work as SF. This historically unprecedented “new thing” intervenes in the routine course of social life and changes the trajectory of history. Every SF text supplies fictive novums and responses to them. We can observe this in Shelley/Victor Frankenstein’s inspiration of Darwin’s emerging theories, as well as Verne’s Nautilus in *Twenty Thousand Leagues Under the Sea*. SF doesn’t allow inexplicable marvels, fantastic transcendences, or devils or demons. While an SF work may not necessarily have to explain everything within the text, its logical narrative equips the reader with enough reality-based evidence to address the novum in question. The SF novum, in essence, is a stone thrown into the pool of social existence, and each text excogitates the ripples that ensue. The stone may come from another world like a meteorite, or it may rise as a man-made construction. Even if the novum does emerge from human origins, its impact on the world is as if it were alien. Because SF novums are semi-fictional, their

meanings are constructed by the fictive worlds response to them, but also by the reader's parallel reconstruction in reality according to the current science available. By trying to understand these novums, belief systems become disturbed and dislodged, which forces paradigm shifts in modern thinking. Thusly, this is the ultimate intent of each novum.

Each SF novum is a compound of at least two types of what Suvin deems radical change. The first change usually appears as a physical-material novelty: something that is structurally perceptible, albeit a tangible object or an institution. This physical change is then complemented by an ethical response: a change in values and mores. Each of these novum-types (material and ethical) symbiotically influences the other and is "an engine for providing new concepts; they are a negative apocalypse," (Ronay Jr. 55) or more commonly referred to as "future-shock": a difficulty in older or antiquated societies to adapt and evolve alongside techno-scientific advancement.

A further defining feature of SF is the role the novum plays in the narrative: it must function as the nucleus for the whole work, the center from which the plot, structure, and style flow. The novum, Suvin formulates, "is so central and significant that it determines the whole narrative logic" (Suvin 4). It is this special type of novum, one validated by cognitive logic and the central role it plays, which defines a work as SF. Author and early adopter, H.G. Wells, remarks further:

Anyone can think up inside out people, antigravity, or worlds in the shape of dumbbells. Interest arises when all of this is conveyed in everyday language and all other marvels are simply swept away. Where anything can happen nothing is interesting. The reader must accept the rules of the game, and the author, insofar as tact permits, must exert every effort so that the reader can 'feel at home' with his fantastic hypothesis. With the help of a probable supposition he must compel in the reader a wholehearted concession and continue the story as long as the illusion is maintained....He must take the details from everyday reality....in order to preserve the strict truth of the initial fantastic premise, for any superfluous invention going beyond its boundaries gives the whole work an aura of senseless contrivance and fantasy. (Ronay Jr. 63)

There's certainly not an important text earlier than *Frankenstein* that contains "every major formal characteristic" and succeeds in utilizing a practical SF novum (Freedman 2). Whether *Frankenstein* is the product of a ghost story contest among authors, a judicious response to advancing technology and the Industrial Revolution, the anxiety of motherhood, or Shelley's subconscious lamentation of her dead son, William (whose double is murdered by the Monster in the novel), it is a text which established the blueprint for SF. Yet the genre in the nineteenth century had a disappointing dearth of success, both in terms of replication and mass appeal. Those who were retroactively praised and inducted to the

founding family of SF, including Jules Verne and H.G. Wells, very rarely produced work that definitively molded to the SF tenets Shelley put forth. They often began well enough, but would fail to be as competent as their predecessor.

Jules Verne attempted to break creative constraints by infusing realism and exhaustive science with wondrous narrative, but almost to a fault. Verne deliberately aimed to instruct and enlighten his reader through a series of fictional journeys beyond his homeland, but he embodied a future anthropologist more so than a narrative storyteller. *Twenty Thousand Leagues Under the Sea*, part of Jules Verne's vast corpus of novels (*Voyages Extraordinaires*) written over a forty-year period from 1863-1905, quintessentially chronicled changing worldviews and entertained new social, scientific, and political possibilities opened up by progressive attitudes. Captain Nemo embodied the nineteenth century's fascination with the machine and its miraculous power to shrink the globe, enable communication, facilitate construction, or in some cases, precipitate destruction (Unwin 5).

However, Verne relied heavily on written scientific sources; he perhaps felt compelled to match each fiction with fact, which often overwhelmed his writing. Verne's scientific documentation certainly reshaped the storytelling process like it did Shelley, differentiating it from the canon before him, but devolved with disproportionate descriptions of marine life or mechanical obsessions. For Verne, he couldn't quite strike

the same balance as Shelley. Science is paramount to character-story immersion, vocalized through one of Captain Nemo's many orations: "The sea is everything...you and your companions are nothing to me but the passengers of the Nautilus" (Verne 157).

Not only did the extreme realism of Verne's discourse neutralize its fictional status, his novums were not at all that innovative. William Butcher, a Verne scholar, stated in forward to an Oxford University Press printing of *20,000 Leagues Under The Sea*:

Verne is not a science fiction writer: most of his books contain no innovative science, and what it does, is bombastically encumbered. Verne himself was categorical: 'I am not in any way the inventor of submarine navigation. It had long existed in many mythical derivatives.' He even claimed he was 'never specifically interested in science,' only in using it to create dramatic stories in exotic parts; and indeed his reputation as a founding father of science fiction has led to a major obfuscation of his literary merits. (4)

The introduction to Butcher's translation of *Voyage to the Center of the Earth* makes a matching claim, insisting:

In Verne's case, if a genre classification really is necessary, he falls into that of fantasy and adventure. But in no case can he be considered a science fiction writer. His logic is capricious, his characters happenstance. (vi)

Butcher goes on to cite an additional example in *From The Earth to the Moon* (1865), where Verne haphazardly propels his space travellers to outer space by a gigantic cannon, which surely would've squashed them flat upon such acceleration necessary to break our atmosphere. While the novel explores the notion of space travel, it fails to succeed in producing either type of novum: the plausible, material novelty or the radical ethical change it'd initiate.

Wells, by contrast, modeled his worlds less on exploration than on analogy with experimentation. Yet he too struggled to strike the right balance between science and fiction. His protagonists usually do not have any idea what they're getting involved in, and have few skills for dealing with the novum generated. The Time Traveller of *The Time Machine* (1895) lands in the year 802,701 by chance, not estimation, and Bedford and Cavor of *First Men on the Moon* (1901) have no useful knowledge of where they've arrived. Wells' tales, above all, build on logic by desperation, not premeditation. His experiments are chaotically realized, and thus have no inherent scientific methodology.

The green comet of H.G. Wells' *In the Days of the Comet* (1906) is another prime example: Although the tale begins in a particularly realistic mood, depicting class relations within a small town in late Victorian England more sharply than in Wells' other romances, the physics of the comet and its effects are unexplored. A contemporary reader of apocalyptic fantasy might recognize the story as an imitation of Camille

Flammarion's spiritual comet in "La Fin du Monde" (1893), which exhibits similar scientific shallowness. Like Flammarion, Well uses the comet as a pretext for a tale of social and moral redemption. However, the result is an incoherent narrative trying to find its way through fuzzy romance, moral fantasy, and political parable. (Ronay Jr. 55).

Orbiting other SF works in Victorian Gothic literature, certain texts sought to exploit novums and failed from the offset. Edward Bulker-Lytton's *The Coming Race* (1871), a perfect companion piece to H.G. Well's *The Time Machine* in terms of societal introspection, highlights the use of an energy force referred to as "Vril." Compared to Robert Louis Stevens' *Strange Case of Dr. Jekyll and Mr. Hyde* (1886), which uses chemical substances to aid his transformative disassociation, the Vril is never given a detailed development or assigned an origin. Vril fails as a SF novum because it aligns itself with fantastical feats: an all-powering healing substance and can reanimate matter inexplicably, unlike the well-documented electrical creation of Frankenstein's Monster.

Cognitive Estrangement and the Monster Protagonist

Aside from a validated novum, Darko Suvin insisted on SF's need to provide a suitable alternative to the real world that could test these "new things" and their influence. Novums required a fictional world parallel to ours, but equally plausible. For instance, a subgenre in SF is Steampunk,

where in a parallel universe steam-powered machinery persevered over electrical and combustion-based technology. Alternative to our current world, Steampunk's water-based technology restructures an entire existence and aesthetic that is cognitively divergent from ours. Suvin perceived this as a "developed oxymoron, a realistic irreality" that has since been referred to as "The Cognitive Estrangement Theory." In his 1982 essay, *Narrative Logic, Ideological Domination, and the Range of SF*, he states:

SF is a literary genre whose necessary and sufficient conditions are the presence and interaction of estrangement and cognition, and whose formal device is an imaginative framework alternative to the author's empirical environment.

(Suvin 5)

While there is estrangement, that is to say an inherent displacement from the real world in all fiction, SF distinguishes its estrangements as scientifically plausible—or cognitive, meaning to "be knowable." Cognitive estrangement is a process of augmenting our empirical reality to a logical extreme, and investigating current scientific theory and anomalies through a narrative process. The cognitive estrangements are not conjured, but derived from real world discoveries. They merely accommodate potentialities yet to be realized. This approach is adopted from the scientific method, where necessary experimentation of new phenomena includes adding and removing variables (much like Victor

does in his creation of the Monster with excavated cadaver parts). Shelley endorses this methodology through Victor's initial account aboard Captain Walton's ship:

I believe that the strange incidents connected with it will afford a view of nature, which may enlarge your faculties and understanding. You will hear of powers and occurrences, such as you have been accustomed to believe impossible; but I do not doubt that my tale conveys in its series internal evidence of the truth of the events of which it is composed. (25, *emphasis underlined*)

Victor Frankenstein's human perspective is commonplace to us, but the Monster affords a different view of nature. Victor represents the current worldview on the precipice of change, and the Monster represents the logical extreme. While the electrical galvanization and the subsequent Monster are the novums which *Frankenstein* revolves, the Monster truly employs cognitive estrangement by commenting on local customs, emotions, wildlife, and scenery on his travels that are ordinary to the reader, yet strange to him.

For example, the Monster's bewilderment with snow illuminates an element of weather that is an "odd mutation" of water, but is a generic transformation to Victor Frankenstein and the reader. There is nothing odd or miraculous about water's transformative properties. This de-familiarization closely relates to Darko Suvin's cognitive estrangement,

where a central protagonist “confronts a set normative system...with a point of view or intent of implying a new set of norms” (Morgan 3). In the *Monster*, we have both a physical novum, a radical ethical change, and a cognitive estranged setting.

More so, Shelley structurally alters the novel through cognitive estrangement by appointing several protagonists. While *Frankenstein* begins with conventional human characters like Captain Robert Walton, who readers will initially appoint the novel’s protagonist, the role is then juggled to Victor Frankenstein and ultimately passed to his unnamed Monster; perchance unnamed since his perspective is deemed unidentifiable. Three travel narratives are presented instead of just one: Walton’s Artic exploration, the Monster’s wild wanderings, or Frankenstein’s scientific journey. Yet the Monster’s narrative occupies Volume 2 as the core of the novel, comprising chapters 3-8 of the nine chapters total.

Shelley’s frame narrative highlights the Monster as our main protagonist whom we should sympathize, which is a very strange and inverted request to ask of a Gothic reader. Those who first approached *Frankenstein* through Gothic conventions were predisposed to see the Monster as Victor’s doppelganger, an extension of Victor rather than an independent entity. Doubling was a notable trait of Gothic literature, but by telling his own story, the Monster claims agency of an individual protagonist. Shelley equips the Monster with an original

identity rather than a doppelganger façade and presents him as more than a scant externalization of Victor Frankenstein's existential struggle. The most effective result of the embedded narrative is that the Monster dictates his own story: he is allotted a voice, granting the reader access to his thought and feelings in his most vulnerable and deplorable moments.

Like emerging SF, the Monster's solitude stems from being the only creature of his kind in existence and from being shunned by humanity. He senses a woeful lack of social identity (in addition to his namelessness) and a lack of interaction with others. It's only after watching the cottagers, learning to speak and understand the language perfectly, the Monster is able vocalize his situation. Deformed and alone, similar to SF, the Monster's status and agency is unknown: "Was I then a monster," he asks, "a blot upon the earth, from which all men fled, and whom all men disowned?" (109). Victor, too, is an outsider, as he is soon alienated from friends, family, and the rest of society. Shelley aligns Victor and the Monster's estranged accounts throughout the novel. Both characters allude to *Paradise Lost* as they try to understand their identities and altered perspectives. The Monster goes as far to compare himself to Satan and Adam, demonic and human:

"Like Adam, I was created apparently united by no link to any other being in existence...but many times I considered Satan as the fitter emblem of my condition; for often, like him, when I viewed

the bliss of my protectors, the bitter gall of envy rose within me.”

(124)

Both Victor and the Monster are emotional, sensitive, cognizant of nature’s power, and concerned with the dangers of knowledge. They are not much different than the common man, except that they teeter on extreme outcomes. In fact, the similarity of their tones arises from the filtering inherent in the layered narrative: the Monster speaks through Victor, Victor through Walton, and Walton ultimately speaks through the genre-newborn Shelley.

Estranged herself, Shelley discernibly identified with both Victor and the Monster. She was a “new” writer with little recourse to separate from her past without scrutiny. At the time she wrote *Frankenstein*, Shelley (then Mary Wollstonecraft Godwin) was involved in scandal and ridicule. At sixteen, she had eloped with then married poet Percy Bysshe Shelley, joined by her teenaged half-sister, Jane Claire Clairmont. Jane Claire may have also been intimate with Percy, and she later became Lord Byron’s mistress, bearing him a daughter, Allegra, whom Byron placed in an orphanage where the girl died at age five. At seventeen, Mary gave premature birth to an unnamed daughter who died within days. The following year, Mary’s other stepsister, Fanny Imlay, killed herself (also rumored to have had an affair with Percy). That same year, Percy’s pregnant wife, Harriet, committed suicide by jumping from a bridge over the Serpentine in Hyde Park. And lastly, there is also evidence from

Shelley's journals that she identified with pariahs encountered in her reading, like Milton's aforementioned Satan and Coleridge's Ancient Mariner.

Therefore, with the creation of a "monster" or SF, Shelley depicted something strange and new, yet oddly biographical. While the Monster demonstrates greater intelligence than his creator, Shelley instructs us not to fear him or a scientific, pragmatic perspective of the world. She depicts the Monster as an amiable creature misunderstood by its appearance. Witnesses throughout *Frankenstein* interpret the Monster as an anti-Edenic evolution of man and an anthropomorphized adulteration of utopian romances. Yet this is precisely why Shelley makes the Monster hideous: he is physically grotesque to demote aestheticism and clash with the Gothic-favored sublime.

Chapter 3:

The Kantian Sublime and Grotesque

Though customarily correlated with the Gothic, Shelley introduces sublime imagery as the Greek writer, Longinus, first explained in *On the Sublime* (1712) to express “the power to provoke ecstasy” and to strike one with grandeur of thought, emotion, and awe (3). This would ultimately be the intent of SF, steered more toward plausibility. Through sublimity, or the sublime, a person could encounter certain aesthetic experiences when faced with immense beauty, terror, awe, and the unknown (McKay 1). While the concept of the sublime evolved aesthetically throughout the 18th and 19th century, it was almost always embodied through nature’s vast stronghold, often difficult to comprehend in its entirety, whether by towering mountains or desolate landscapes. The sublime is not necessarily a hostile reaction to nature in general, but the embodied moment when nature manifests itself in and beyond human consciousness, producing emotions of futility. When Victor travels to the summit of Montavert after creating and abandoning his Monster, he hopes to revive his spirits and be momentarily consoled by nature’s sublime spectacle.

Yet, while crossing the glacier, he spots the grotesque shape of the Monster. The grotesque as a stylistic device countered the sublime; grotesque imagery induced simultaneous empathy and disgust, something

disharmonious to the status quo. While the sublime invited wonder, the grotesque garnered aversion. The main difference between the sublime and grotesque is directional: the sublime endorses panoptic perspectives (ethereality, unimaginable expansion, etc.), while the grotesque tackles more intimate phenomena that threaten physical aberration.

Like electricity that is both physical and ethereal, Shelley opposed the sublime and grotesque against one another to symbolize the fragile balance between creator and creation. Victor hurls threats at the Monster, but the Monster responds eloquently, summoning his creator into a cave of ice where he narrates the events of his life around a fire: the scene acts as an ignited symbol of Victor's edification. The old world, that is the natural sublime world, is no longer sufficient in pacifying Victor when he knows the Monster exists: "The rain depressed me; my old feelings recurred, and I was miserable." (84). Like Shelley, science's encroachment into the natural world is permanent and irreversible, as is the knowledge gained. After realizing that he is horribly different from human beings, the Monster blatantly cries out, "Of what a strange nature is knowledge! It clings to the mind, when it has once seized on it, like a lichen on the rock." (51).

Of all contemporary genres, SF strongly evokes the particular experience of the sublime defined by German philosopher, Immanuel Kant. He depicted the sublime as the sense of temporal, spatial, and most importantly, "mathematical infinitude" (Kant 89). The mathematical or

techno-scientific view of the sublime entails a sense of awe and dread in response to techno-scientific advancement. For Kant there are two kinds of sublime response: the mathematical, followed by the dynamic. The mathematical involves the experience of infinity, which in *Frankenstein* was nature's vast geography. But nature is also the dynamic type of sublime in that while weather is predictable, major shifts occur unexpectedly.

Shelley's Monster meets both requisites of Kantian sublime: mathematically born of Victor Frankenstein's educated mind, and dynamic in his evolving sense of autonomy—an inability to be controlled by his creator. The Monster was both a “being of gigantic stature...about eight feet in height and proportionately large” and later referred to as a “catastrophe” whose ugliness is bemoaned by Victor:

"How can I describe my emotions at this catastrophe, or how delineate the wretch whom with such infinite pains and care I had endeavored to form? His limbs were in proportion, and I had selected his features as beautiful. Beautiful! Great God!" (52)

What Victor intends to be beautiful and sublime ends in a grotesque form. The Monster is unique in that he evokes both the sublime and the grotesque. He transitions, like Shelley's novel, from one state of being to another; he is an interstitial creature. According to Kant, the sublime state of mind must only be produced by “colossal representations of nature,” but not “monstrous” as is Victor's creation (Kant 91).

Monstrous, in Kant and Shelley's terms, would inhabit the grotesque as being "inwardly destructive," while the colossal presents "concepts almost too great for any presentation...the intuition of an object *almost* too great for our faculty of apprehension" (Kant 92). Strangely, the Monster is both colossal and destructive. Despite the Monster being equally awe-inspiring as nature, Shelley simultaneously associated and posed him against nature, as remarked by Victor on the summit of Mont Blanc:

"During this short voyage I saw the lightning playing on the summit of Mont Blanc in the most beautiful figures. The storm appeared to approach rapidly, and, on landing, I ascended a low hill, that I might observe its progress. It advanced; the heavens were clouded, and I soon felt the rain coming slowly in large drops, but its violence quickly increased...I perceived in the gloom a figure which stole from behind a clump of trees near me...A flash of lightning illuminated the object, and discovered its shape plainly to me; its gigantic stature, and the deformity of its aspect more hideous than belongs to humanity, instantly informed me that it was the wretch, the filthy daemon, to whom I had given life."

(72)

One elemental trait of grotesque beings is that they regularly contain at least two bodies in one. A new body may be in the process of metamorphosing out of an old one or may combine, conflate, or be trapped in two forms. This is so for the Monster, both stylistically (sublime and

grotesque) and aesthetically (impressive and deformed). This pedigree of interstitial beings goes back to ancient monsters and mythic prodigies—Scylla and Charybdis, Polyphemus, the Lamia, Pliny's mouthless Astemoi, the dogheaded Kynokephaloi, Lucius the Ass (Ronay Jr. 192). Victor aspired for a sublime creation, to conquer and control nature, but ended in a grotesque result that was beyond his dominion.

Paradoxically, it appears Shelley schemed *Frankenstein* as a parody of the Kantian sublime, for everything in the *Critique of Judgment* that Kant identifies as sublime, Shelley systematically inverts. She creates a Kantian sublime creature, yet it diametrically harbors what Kant prohibits: terror and monstrosity (Freeman 3). We witness this early on when Victor at age fifteen, beholds a terrible thunderstorm: lightning strikes a nearby "old and beautiful" oak (34). Victor declares: "I never beheld anything so utterly destroyed" (35). Early on, Shelley foreshadows the Monster's future effect: the lightning destroys the tree as the monster will destroy Victor, his family, and their old way of life. Nothing remains but a "blasted stump" or the history of yesteryear. Shelley, from the very onset, positions the sublime in *Frankenstein* to fall prey to the grotesque.

2001

In many respects, film is a more congenial medium for expressing the Kantian sublime than literature. Cinema is designed as an immersive

experience, commanding all senses but tactile. Its inherent purpose is escapist, awe-inspiring, and is one of the only arenas that dually acts as and represents technological environments: perfectly devised to discuss and inhabit the Kantian sublime. SF critic and Romanian lecturer at Cluj-Napoca University, Cornel Robu, referred to Kubrick's 2001 "the supreme expression of the mathematical sublime in SF cinema" (Robu 4) for this very reason.

While Shelley enforces terrestrial or geographical depictions to produce the estranging effect of the Kantian sublime, that of "mathematical infinitude," Stanley Kubrick's film, *2001: A Space Odyssey* ventures even further: into the celestial and beyond, as well as technologically. Shelley's earthly manifestations are rendered diminutive in scale to Kubrick's trek amongst the cosmos. On earth, Shelley investigated science's encroachment and governance of nature between the Monster and Victor, whereas Kubrick employed all of space, the pervasive AI of HAL 9000, and the omnipresent monoliths against astronaut David Bowman.

However, The grotesque in *2001* is not aesthetically abhorrent like *Frankenstein's* Monster, but technologically overwhelming: it's HAL's lack of corporeality and red-eyed embodiment that directly opposed and threatened Bowman's current way of life as science did agrarian existence. Bowman's future rests in the ubiquitous AI (artificial intelligence), which ultimate turns on his superior like between the Monster does Victor. HAL,

like Frankenstein's Monster, is an interstitial being who boasts about being "by any practical definition of the words, foolproof and incapable of error." Kubrick sardonically illustrates this during Bowman's elementary attempt at chess with the computer.

Bowman is relatively helpless without the aid of the novums around him, as his entire journey is predicated upon resigning to the mysterious monoliths challenging the astronaut's philosophical and intellectual compass. These rectangular novums are situated, since the beginning of human history, to entice Bowman down a proverbial trail of breadcrumbs to either unknown doom or enlightenment.

Kubrick demonstrates Bowman's struggle between the human imagination's frustrated desire to expand and perceive infinity directly without such aids. Outside of mathematical theory, humanity have no way to firsthand witness infinity other than through two- and three-dimensional visual representations. For instance, the manner in which black holes are presented is through algorithmic formula and two- or three-dimensional illustration. However, black holes are spatial anomalies that do not equate to our current understanding of relativity or quantum theory, as it violates our established rules of time and space.

The introductory "Dawn of Man" sequence first illustrates the mathematical sublime in a primitive form: the earth here is a hostile Eden, deadly and vast with no end in sight as Kubrick inserts endless vistas stretching out from their horizon (Ronay Jr. 162). Yet disruptively, the

monolith appears as a rectangular obstruction: a scientific encroachment that leads to man's aggressive, invasive, yet necessary evolution. Kubrick sets the monolith amongst the land to insist it is an evolution of nature, not just an extraterrestrial force. It imparts the knowledge of utilizing simple tools, appropriating bones to bludgeon tapirs and rival primates, and quickly elevates humanity to space conquest.

Moonwatcher, the primate leader, is placed in high heroic relief like the introduction of the monolith as he casts the tapir bone skyward upon the "Dawn of Man" conclusion. The following bone-to-satellite match cut bypasses all human spiritual attainments, since Kubrick disqualifies any advancement that cannot be interpreted technologically or mathematically. This may be why many, if not all of the human characters in *2001* are viewed as flagrantly pragmatic and apathetic: both Bowman and his accompanying astronaut, Dr. Heywood Floyd, treat everything from birthdays to space walks with equal indifference. Kubrick portrays progress as not a measure of human emotions, moral or ethical victories, but of the observable ability to extend human intelligence and technological power (Ronay Jr. 166).

Even before viewers are introduced to mankind's primate ancestors, the "Dawn of Man" sequence is preceded by four entire minutes of blackness. While many critics interpret this as the beginning of time, a prologue of inexistence before the big bang, viewers are arguably witnessing the first monolith: we are staring straight at it, up close. The

film screen is a transformative novum, edifying and enlightening us.

While the blackness is indistinguishable at first, this is the only method in which Kubrick can ascertainably display mathematical infinitude and the monolith's sublime power.

Bookending *2001* is the final "Beyond the Infinite" sequence, which includes the psychedelic Stargate and Victorian holding cell scenes, is only represented in a way that can consciously comprehend the Kantian sublime. *2001* structurally shifts from an outwardly drifting physical odyssey to concluding in an introspective journey because of Kubrick's paradoxical realization of conscious limitation. Bowman's journey is still only cinematic or fictional representations of mathematical infinitude. Even when Kubrick's meditation on the Kantian sublime drift toward spiritual transcendence, as in Bowman's final trek through the slit-scan sequenced Stargate, it is represented by geometric patterns and inverted color spectrums; the last sector of the Stargate are merely photographically-negative landscapes. These are the only representative options available for mathematical infinitude to be grasped by the human consciousness. At the time of filming, photographic evidence of supernovas, galaxy formations, and comets were limited, leaving Kubrick to achieve adequate representations through other means: from microscopic sperm and zygote slides to slow-motion paint splatters.

When Bowman ultimately arrives at the extraterrestrial holding cell depicted as a strangely Victorian-set antechamber, Kubrick

demonstrates humanity's inability and futile attempt to fully comprehend the mathematical sublime. Time passes exponentially despite our understanding, decades passing in minutes. The pastoral windows displaying nature are still-lives and perhaps criticize our feeble attempt to encapsulate the entirety of nature. Even the light is artificial, as they are no windows or doors; Bowman is dependent on the extraterrestrial entity to perceive the Kantian sublime. Bowman, as a representative ambassador of humanity, has a fragile grasp of life and nature. This is most evidently displayed when Bowman dines on another monotonous dinner, and accidentally smashes a crystal glass to the floor. Bowman requires the arrival of the last monolith at the edge of his deathbed to move beyond human consciousness and into that of a "starchild," of whom can comprehend the concept of infinitude, if only as a cosmic infant.

Chapter 4:

Archetypal Psychology and Jungian Limitations

There is always a moment in fiction or film when one character must explain an anomaly to another. If it is a mystery, perhaps they recount leading events or revelatory clues; if it's educational, a simplified explanation is given as if one's speaking to a toddler. Whichever the case, there is usually a point of reference for comparison. Readers and viewers accept this story mechanic as the norm, even a clichéd marker of a major plot shift. After all, most may not be well versed in quantum theory or the fundamentals of nuclear physics. Yet what about the first characters to do this, those who first elucidated new scientific notions to someone without the points of reference available today? How do we define these fictive frontiersmen providing the archetypal model to follow?

Firstly, an understanding of archetypes is requisite. Archetypes are a well-recognized idea in psychology, which has translated to how we identify character personalities in literature. The term "archetype" has its origins in ancient Greek with root words *archein* meaning "original or old" and *typos* meaning "pattern, model or type." The combined meaning is an "original pattern" of which all other similar persons, objects, or concepts are derived, copied, modeled, or emulated. Archetypes garnered great promotion by famous psychologist, Carl Gustav Jung, who employed the concept to explain thought patterns in the human psyche.

Through universal and fundamental mythic personas, Jung believed archetypes derived from past collective experiences and is present in an individual unconscious. While we will not dissect the innumerable archetypes currently categorized (the Hero, the Shadow, the Self, the Anima, the Mother, the Outlaw, etc.), it is important to note that archetypes are widely considered to be of an “unconscious influence.”

This idea of “unconscious influence” is critical when we extend archetypal understanding to literature, and becomes directly problematic to SF. Jungian archetypes provide a foundation for psychological development, upon which an individual can manifest stronger, individualized, and more dynamic characteristics. But never is it mentioned how an archetype can develop truly dynamic and unique characteristics. If a new genre merely employs and recycles archetypes with a preceding genre’s traits, how can "new" archetypes form?

According to Jungian psychology, all archetypes are umbilical tied to the genre preceding (i.e. Medieval characteristics from Biblical, Elizabethan from Medieval, Victorian from Elizabethan, Gothic from Victorian, and Science Fiction from Gothic). If archetypes are “unconsciously influenced,” then how can a new genre like SF ever be truly independent if its inhabitants are fictional vagrants from other genres? More so, how do we identify “new” archetypes without symbiotically relating to their predecessors?

For instance, the dominant archetype in SF is the mad scientist, but surely characters of this association have existed before. “Mad” in this connotation implies nonconventional thinking, much like the “mad women” of Victorian novels, where domestic rebelliousness was deemed psychotic or feeble-minded within the patriarchal system. “Scientist” was a title established after the Industrial Enlightenment, yet is now tethered to forward-thinking revolutionaries of previous lore: figures that ventured to discover, experiment, and validate their innovative claims. Many ancient archetypes wielded esoteric knowledge: shamans, witches and witch doctors were revered and feared for their misunderstood abilities to conjure, challenge God directly, and threaten to dismantle religious institutions. Scientists shared many of the same perceived characteristics such as eccentric behavior, introversion, and the alchemic ability to create life. Perhaps the closest figure in Western mythology to the modern mad scientist was Greek craftsman, Daedalus, creator of the labyrinth, who was then imprisoned by King Minos on the island of Crete with his son, Icarus. To escape, Daedalus invented two pairs of wings made from feathers and beeswax, one for himself and the other for Icarus. While Daedalus himself managed to fly to safety, Icarus flew too close to the sun, which melted the wings’ wax, casting him down into the sea below. Scientists and inventors of the modern era have also retroactively contributed to the development of common tropes surrounding the mad scientist. Nikola Tesla in his later years conceptualized a so-called “death ray” (a directed energy weapon)

and was sensationalized in the media as a prototypical “mad scientist” for his proposal. Yet while Victor Frankenstein can be generally characterized as a scientist, his ideas revolutionary and unique, he was neither mad in the mythic or Victorian Gothic sense. His innovation stemmed from logic and scientific methodology, a distinction of which no characters before him grasped so deftly. Nor did relative protagonists take the time to explain their methodology’s as clearly and effectively as in *Frankenstein*.

Genremorphs and Creation Anxiety

All new genres, through their first literary ventures, create one purposefully conscious archetype: the genremorph. The term is neologized from the Greek *genos* (genus, genre) and the Greek *morphē* (shape, mold). This consciousness and hyperawareness promotes a unique and original status of which all new genre archetypes can augment. Genremorphs often act as a mouthpiece for an author's commentary or concerns upon entering a new genre. Since the author is operating in an unnamed new genre, of which the rules and laws are still being established, they often funnel their concerns through genremorphs in reflective monologues and pedantic discourse. Examples outside Science Fiction would include *Sherlock Holmes* and Modern Crime Fiction, *The Epic of Gilgamesh* and Fantasy Adventure, or *The Castle of Otranto*’s Manfred and Gothic Horror.

If most archetypes live in a house of “unconscious influence,” oblivious to those watching from outside the windows, a genremorph dwells on the porch and breaks the fourth wall to communicate directly with the audience on its new found home. Genremorphs are only archetypal in that they provide a model for future characters, yet primarily act as an ambassador evangelizing for flourishing genres to convey defining tenets, endorse narrative autonomy, and to converse directly about a genre's intentions.

While archetypes associate with redundancy, or a recycling of character traits, they exist to provide a catalytic framework for change; they are creature from older architecture, but refurbished into new structures. Jung elaborates: “The archetype strongly activates and provides a meaningful transition ... with a 'rite of passage' from one stage of life to the next.” (Jung 72). Thus, archetypes prepare a transition, say from Victorian Gothic to Science Fiction, but it's the vital genremorph who first populates the new genre.

Frankenstein's major dilemma for its genremorphs, Victor Frankenstein and his Monster, is that man conflicts with his quest for knowledge. Victor initially champions the pursuit, but immediately questions the result upon the Monster's creation. Shelley interjects her own interpretations of how the scientific pursuit is relevant, not just only to the future of literature, but to her personal life and plight. Victor explains, “I had often, when at home, thought it hard to remain during my

youth cooped up in one place and had longed to enter the world and take my station among other human beings” (30). M. Krempe, Victor’s professor of natural philosophy, further decries his student’s initial pursuits, declaring, “You have burdened your memory with exploded systems and useless names.” (31). Shelley contemplates the explosion of such an established system when Victor honestly insists:

Learn from me, if not by my precepts, at least by my example, how dangerous is the acquirement of knowledge and how much happier that man is who believes his native town to be the world, than he who aspires to be greater than his nature will allow. (39)

While Victor aspires to possess the greatest knowledge, he is extraordinarily weak emotionally, perhaps like Shelley as a young writer. She continues via Victor, elaborating further:

Nothing is more painful to the human mind than, after the feelings have been worked up by a quick succession of events, the dead calmness of inaction and certainty which follows and deprives the soul both of hope and fear... This state of mind preyed upon my health, which had perhaps never entirely recovered from the first shock it had sustained. I shunned the face of man; all sound of joy or complacency was torture to me; solitude was my only consolation — deep, dark, deathlike solitude. (77)

The Monster explains that the “Increase of knowledge only discovered to me more clearly what a wretched outcast I was” (119).

Shelley's fear of her own created product is commonly referred to as creation anxiety. Defined by Søren Kierkegaard in *Concept of Anxiety* (1844), creation anxiety elucidates the emotional distress presented by Shelley's desire to break from convention. Shelley evidently conceives herself as a Victor Frankenstein and her text as her monster. Shelley's 1831 preface goes as far to begin with a justification of her own work as an author. Responding to a question Shelley had often been asked since Frankenstein's original publication thirteen years prior, she questions: "How I, then a young girl, came to think of, and to dilate upon, so very hideous an idea?" This question reflects a range of early nineteenth-century British expectations upon young girls that Shelley challenged with *Frankenstein's* publication. In the preface, Mary Shelley details writing a short initial draft of Frankenstein to appease Percy Shelley's constant prodding. While desiring to follow her parents' literary fame, Shelley confesses reluctance to take the first steps toward serious literature and admits her previous literary creations were not of the sort to earn her a literary reputation, being largely private and unpublished or simply "castles in the air," waking dreams that served as a substitute for a dull reality (Rovira 4).

Shelley felt lost in the shadow of her father's, mother's, and future husband's literary reputations. Her authorship promised creative freedom, loomed over her entire life, and manifested itself in a parallel construction in *Frankenstein* as "the pale student of unhallowed arts":

My imagination, unbidden, possessed and guided me, gifting the successive images that arose in my mind with a sudden vividness far beyond the usual bonds of reverie. I saw – with shut eyes, but acute mental vision – I saw the pale student of unhallowed arts kneeling beside the thing he had put together. [...] His success would terrify the artist; he would rush away from his odious handiwork, horror-stricken. [...] I opened [my eyes] in terror.

(Preface, 24)

Shelley's contradictory desires, the desire to break with convention by publishing *Frankenstein*, and the desire to simultaneously push the novel away from herself rather than dominate it, as Victor simultaneously desired to create the monster then pushed him away from himself once created, is exemplary of Kierkegaardian sympathetic antipathy and antipathetic sympathy; simultaneous fear and desire expressed toward the same object, the object provoking anxiety (Rovira 5). *Frankenstein* thus becomes Shelley's imaginative reconstruction of her own projected future after the novel's publication. Shelley's fear of her own hideous progeny is fear of becoming an alienated author.

Kubrick, on the other hand, had less doubt and more assertion about his science fictional intentions in *2001*. His creation anxiety did not indulge the fear of filming a scientifically accurate narrative, but focused on humanity's parasitic reliance on external and technological forces for evolutionary transformation; Kubrick posited on humanity technological

dependence and wondered if our species was truly special or merely apes with a few more parlor tricks?

2001 operated on many literary aspects well established in SF for over a century, including the realization of novums in space travel, AI (HAL9000), and the aforementioned “philosophical interludes” mentioned by Aldiss that are representative by the monoliths leading Bowman’s odyssey. Yet the film had few cinematic references. Many of *2001*’s predecessors harkened the bombastic pulp of the 1920s-1950s: intellectually devoid fare that relied more upon special effects and fantastical gimmicky that only feigned a science fictional form through clunky robotics, distant lands, and melodramatic plots and acting. Kubrick wanted to create an awesome, immersive experience—most of the captions for *2001*’s marketing campaign included the varied phrasing of “an epic drama of adventure and exploration”—but he was more so consciously exploring the SF genre itself, and not just entertaining an intensive technical exercise. *2001*, especially the ending, offers multiple perspectives and self-conscious awareness: the primary genremorph, David Bowman, inhabits multiple selves as he grows older, becoming wiser and more patient, and even technically through Kubrick’s use of fourth wall shots, as when Bowman in his deathbed reaches out to the monolith.

As per Kubrick’s investigation of humanity and technology’s synergistic relationship, he positions an antagonism between men and

machine, yet never concretely sides on one entity being better than the other. While HAL, Kubrick's second and antithetical genremorph, is presented as antagonistic, the AI's malevolence is diluted by logic and renders the viewer's empathy difficult: does HAL psychotically eliminate the crew and disobey Bowman by his own conscious choice and to advance his own autonomy; or does HAL malfunction due to human error in his programmed logarithm rationalization? Paradoxically, Bowman both feuds with and requires HAL (and all of Discovery One's technologies and space pods) to survive. The monoliths are an advanced form of HAL, yet they are positioned as beneficial. Kubrick vacillates between man and machine's complex relationship, and recognizes this interdependency in a 1968 *Playboy* interview with editor and author Eric Nordern shortly after the release of *2001*:

There's no doubt that we're entering a mechanarchy, however, and that our already complex relationship with our machinery will become even more complex as machines become more and more intelligent. Eventually, we will have to share this planet with machines whose intelligence and abilities surpass our own. But the interrelationship—if intelligently managed by man—could have an immeasurably enriching effect on society. Looking into the distant future, I suppose it's not inconceivable that a semi-sentient robot-computer subculture could evolve that might one day decide it no longer needed man. (Phillips 24)

When asked further about his own creation anxiety and the necessity to perpetuate humanity's existence, Kubrick states:

Our ability, unlike the other animals, to conceptualize our own mortality creates tremendous psychic strains within us...in each man's chest a tiny ferret of fear at this ultimate knowledge gnaws away at his ego and his sense of purpose...[and] if man really sat back and thought about his impending termination and his terrifying insignificance and aloneness in the cosmos, he would surely go mad, or succumb to a numbing sense of futility. (Phillips 25)

It's evident that futility is Kubrick's largest concern: if we can create or make contact with something better than us, than what is our purpose other than to pursue more knowledge? At what point do we gain independence and reach our potential?

HAL talks about employing his capacities to the fullest extent, that "it is the only thing that any conscious entity can hope to do." HAL can only do so because of Bowman, and Bowman and crew can only venture into the beyond through technical and scientific means. Both the human and mechanized genremorphs in 2001 (HAL and Bowman) succeed in addressing such an existential crisis.

Conclusion:

Science Fiction and Sipstream

Author and editor Damon Knight summed up the difficulty of defining SF by stating, "Science Fiction is what we point to when we say it." This definition was echoed by author Mark C. Glassy, who humorously added his own spin by likening SF to pornography: "It exploits the normal, seemingly wrong at first, and while you don't know quite what it is, you realize why it must exist." (James 3). Considering its inherent vulnerability to subjectivity, SF exists like a rare transitional form as literature's platypus: a grotesque freak of nature, yet a sublime demonstration of evolutionary principles. The strangeness of SF stems from its architectural infinitude. SF constructs worlds that do not yet exist, and unlike basic dramas or comedies, is mandated by the mission to discover: the genre exists for mutability. If anything, science fiction is symptomatic of change in cultural sensibility and is as profound as the advent of The Renaissance.

While Asimov came obscurely close to defining SF as a "literature of ideas," my offering would contest it's closer to a literature of constant change. Each entry into SF alters its definition slightly. Like our own primate ancestry, we cannot view its evolution fully, but know of its origins with an embryonic understanding. After all, SF has only been a fully formed genre for a couple of centuries, and it too influencing new emerging genres.

American SF author, Bruce Sterling, coined the term “Slipstream” in 1989 for a genre movement arguably motivated by Carter Scholz’s observation that the “brain-dead” science fiction of the latter 20th century had lost the opportunity to become worthy literature and was incapable of reclaiming any literary significance (Harrington 2). Originally, the term Slipstream was meant to encapsulate a contemporary writing whose very heart was anchored against reality: fantastic, surreal, illogical and with a postmodern sensibility; it arose as a bastard son of SF that diluted plausibility in favor of an increased cognitive estrangement that “sarcastically tears at the structure of everyday life.” (Harrington 3). Most of Slipstream’s working cannon includes latter 20th century writers: Franz Kafka, Kurt Vonnegut, J.G. Ballard, Jorge Luis Borges, Thomas Pynchon, Virginia Woolf, and Ursula K. Leguin. Slipstream, like postmodernism, primarily aims its questions toward identity, meaning, and representation; it acts as a “kind of fantastic or non-realistic fiction that crosses conventional genre boundaries between science fiction/fantasy and mainstream literary fiction.” (Chu 78).

This topic is relevant to exemplify that future genres will encounter the same problem as SF’s search for definitive autonomy. Like Frankenstein’s Monster, all future fiction will be interstitial creatures. Perhaps the chronology of fiction is so long, esteemed, and canonically entrenched that it becomes impossible to separate the past from future. Uniqueness as a literary form becomes more difficult to attain. While

Clute and Nicholl's haphazard resignation to the irresolution of an SF definition should still be ignored, they do raise awareness to fiction's appetite toward variance, as it will always be forced to adopt change according to sociopolitical and artistic influences. But as it's been made evident, SF has two works in *Frankenstein* and *2001* that are stalwarts for the genre, providing the simple rubric below for future referential categorization:

An SF narrative is dictated by a plausible novum, validated by current scientific logic, that discusses both the material novelty and its ethical, moral, and sociopolitical repercussions.

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