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The Rhetoric of Repugnance: Popular Culture and Unpopular Notions in the Human Cloning Debate

Michael J. Klein

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Saul E. Halfon (co-chair)
Richard F. Hirsh (co-chair)
James H. Collier III
James M. Dubinsky
Neal M. King

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ABSTRACT

An ethical frame grounded in science fiction literature shaped the discourse on cloning following the announcement of Dolly-the-sheep’s birth through nuclear transfer. Using methodologies drawn from the social shaping of technology (SST) and rhetoric of science, my analysis demonstrates how individuals and institutions, including the media, ethicists, policymakers, and legislators, appropriated this ethical frame. In doing so, they employed science-fiction stories as rhetorical tropes, providing the public with a frame for understanding the social issues involved with cloning. However, these institutions used science fiction as a way to simplify and present ethical arguments that silenced dissent rather than encouraged dialog. While ethics discourse can validly make use of literature in debates about technology, such a simplistic view of the literature misrepresents the themes the authors explored in their works and limits discussion. I conclude by offering a deeper analysis and reading of some of these stories, relying on the texts themselves rather than the myths that have evolved around these texts as my primary source material. Such a reading provides a valuable counter-narrative to the on-going debate, one that more adequately explains the effects of technology in a society.

In short, this dissertation demonstrates that the reductionist interpretation of works from the science fiction genre had real effects on policy formulation. People utilized their literary-derived perceptions of cloning in political discussions about technology. Thus, policy discussions of the perceived effects of the technology developed much of their meaning and significance from fictional depictions of the technology.
Chapter 5: Rewriting the Science Fiction Narrative

Popular culture plays a large role in influencing public perceptions. Whether in the form of books, magazines, advertisements, or films, these cultural works have a significant effect in shaping our view of events and topics. In the case of cloning, as I have demonstrated, references to science fiction helped fuel the debate on the problems associated with the technology. The media, echoing ethicists’ use of these texts, provided little analysis of what the works meant, using them simply as cultural tropes. However, a closer assessment of some of these cultural texts reveals more nuanced messages than just “cloning is copying” or the negative effects of the “mass production of humans.”

An examination of books and films reveals the underlying concerns of the authors and directors. Science fiction operates as a form of modern myth in our technological culture. Individuals who invoke the names of these works, such as Frankenstein and Brave New World, in the debate over human cloning reference the myths, not the actual stories. Although the two works comment on the power of science and technology in a society, this does not represent the primary critique offered by either author. For both authors, the idea of technology without regulation and without regard for human dignity outweighed concerns about just technology per se.

A similar examination of films finds that their critique of science impugns the morals of the scientists and industrialists who develop genetic engineering and cloning for selfish purposes, not the offspring of modern biotechnology. Rather than be alarmed by the creation, these films direct the audience to fear the creators of these non-traditional offspring. In holding a mirror up to our own society, these films say we should not use this alternative forms of reproduction; not because of the destructive nature of the new offspring, but because of our potentially destructive nature. In analyzing the original works, and re-reading the originals against the myths that have developed from them, I create a counter-narrative challenging Kass’s suggestion that the works anticipate the inevitable negative aspects of modern technology.

Science Fiction as Myth

Critics often cite Mary Shelley’s 1818 novel Frankenstein and Aldous Huxley’s 1932 novel Brave New World as fictional works demonstrating the problems of technology. The power that the tale of Frankenstein has within our culture emanates, in part, from our culture’s integration of the story over the past 200 years. Frankenstein the novel has become Frankenstein the myth, a myth that has been recast by those who wish to argue against different aspects of the scientific endeavor: “Mythology is metaphorical thinking in which the metaphor assumes independent and continuing existence… For metaphor can develop and change, and it is just in the process of such development that it becomes myth” (Small 14-15). As a myth, Frankenstein has taken on significant meanings in our culture, meanings that change when individuals invoke the name in different situations. Thus, metaphor begets myth, which further begets metaphor. Frankenstein’s transformation over time serves as an indication of how science fiction has taken on a more significant meaning in our technological age. In their study of the history of science fiction, authors and critics Alexei and Cory Panshin argue, “science fiction has been the
mythic vehicle for one particular culture, the rational materialistic, weigh-and-measure, science-and-technology minded culture that has arisen in Europe and America since the Renaissance” (3). Just as myths from previous ages taught individuals how to function in the societies they lived in, science fiction tells modern people how to live in our own society, a society that relies on science and technology.

According to the Panshins, the myths of science fiction replaced the myths of antiquity. As rationalism became the reigning paradigm in western thought, the myths of scientific discovery replaced the older myths of magic and superstition. We no longer fear ghosts or tell tales about gods with human traits that live on the tops of mountains. Instead, our stories focus on robots, aliens, and scientists that create artificial life in the laboratory. Our lives have been transfigured by the technology we use everyday to such an extent that we sometimes do not even realize how invasive the technology has become.

Authors of science fiction texts have foreseen much of the technology we use, though usually inadvertently. While these authors did not seek to prophesize the future, they understood science and technology’s increased role in the lives of ordinary people. The examination of the role of science in people’s lives represents the core of science fiction, not the forecasting of the future:

Science fiction is too often mistaken for a literature of prophecy best measured by the accuracy of its predictions, whereas it is better judged as Frankenstein invites judgment, by its ability to pose challenging questions about the human condition in an age of science. (Alkon 28)

This questioning at the core of science fiction resonates with people of different cultures and ages. The role the tale of Frankenstein now plays in debates about biotechnology illustrates this. Professor of English Chris Baldick’s In Frankenstein’s Shadow provides one of the most detailed and in-depth analyses of the way Frankenstein developed into a myth. Partially a history of the novel’s transformation through various incarnations of plays and partially an assessment of the figure of “the monster” in nineteenth-century writings, the analysis underscores the importance of Shelley’s work on subsequent generations of writers and readers. The work achieves this importance by becoming more than just a story about a scientist and his laboratory creation. It becomes larger by becoming a myth. However, in doing so, much of the meaning of the actual story becomes lost:

Most myths, in literate societies at least, prolong their lives not by being retold at great length, but by alluded to, thereby finding fresh contexts and applications. This process strips down the longer stories from which they may be derived, reducing them to the simplest memorable patterns. (3)

Frankenstein’s status as a series of “memorable patterns” serves as one of its greatest strengths: its adaptability by a variety of people who use it to their own ends. As Baldick says, “The vitality of myths lies precisely in their capacity for change, their adaptability and openness to new combinations of meaning” (4).
Historian of science Jon Turney illustrates this adaptability by tracing the evolution of meaning. Turney argues in his book *Frankenstein’s Footsteps* that we comprehend the new technologies of the body through the lens of the *Frankenstein* story. While Shelley could not anticipate the biotechnological revolution of the twentieth century, “she did, at the very start of the modern era, identify concerns which go to the very heart of our response to science” (3). Her story of the creation of life in the laboratory, and its subsequent effects on the society in which it occurred, has become “one of the most important myths of modernity” (3).

In retelling the history of biological science for the past 150 years framed by the story of *Frankenstein*, Turney illustrates the way non-scientific actors responded to scientific “progress.” Journalists and bioethicists alike would often invoke images from fictitious works to try to have the public comprehend what these technological breakthroughs meant for society. For example, in covering the birth of Louise Brown, the first human child conceived through *in vitro* fertilization, many publications invoked the specter of future concerns through allusions to either Aldous Huxley or his dystopic work, *Brave New World* (185). Thus, the promise of what this new technology heralded commingled with fears of the dangers it posed for society. While the positive potential of cloning anticipated future developments in scientific research, the negative fears associated with cloning stimulated the creation of similar critical portrayals of society in other science fiction works.

Sociologist of science Michael Mulkay’s study of the human embryo debates in Great Britain in the 1980s provides an example of an invocation of *Frankenstein*. Mulkay traces the political and ethical debates, examining the way activists and the media contributed to the ongoing dialogue. In a chapter called “The Myth of Frankenstein,” Mulkay outlines the way the fictional character of Dr. Frankenstein took on a particular role in arguments against human embryo research. Opponents to the research invoked the name of Frankenstein as a way to show the horrors associated with such research; he became “the scientific villain” (116). Even more telling, some newspapers covering the story would juxtapose pictures from the 1931 movie with headlines about the ongoing debate, a practice denounced by scientists and science journals at the time (119-20).

Proponents of the research countered with the historic figure of Galileo, silenced by the Church centuries before for his views on the structure of the solar system. For the proponents, Galileo stood for all of those practitioners of science and technology silenced by the state on religious or theological grounds. They saw this debate in much the same light, with the opponents of embryo research taking on the mantle of the Catholic Church in this modern account.

Mulkay’s work illustrates the way discussion of fiction, especially science fiction, has entered debates about technologies of the body. As Mulkay explains, “in thinking and arguing about the shape of things to come, they [people involved in technology policy debates] have no alternative but to create some kind of story which goes beyond these facts” (117). The creation of these stories often blurs the line between fact and fiction, and thus, there arises the invocation of “fictional treatments of science that have become part of our common cultural repertoire.”

Two meta-narratives exist in literature and films dealing with issues of reproductive
technologies. The “Monster in Society” narrative posits that the mere existence of a clone will upset the natural order of society. The clone becomes a force that destroys definitions of the traditional family, familial relationships, and the established social order. The narrative privileges the product of cloning technology rather than the technology itself, and presents a socially deterministic view: social relations impose order and create cultural change. This narrative derives from stories such as *Frankenstein*, in which an abomination terrifies members of society. We identify with the society portrayed in these works because of our recognition of similarities in our own society.

The second meta-narrative, “Society as Monstrous,” speculates that the technology of cloning will change the nature of society. Society changes because the culture accommodates this new technology, eventually incorporating it and naturalizing it. The narrative focuses on the technology of cloning, not the product, and presents a technologically deterministic view: technology imposes order and creates social change. This narrative derives from stories like *Brave New World*, in which technology has altered society to such an extent that we find it unrecognizable. Rather than identifying with the resulting society, we identify with individuals who, like us, find the society oppressive or unfamiliar. The shift from the focus on the Monster in *Frankenstein* to the World State in *Brave New World* reflects the growing influence in technology on society.

Analyzing *Frankenstein* and *Brave New World* illuminates their role in debates about science as “many of the current ethical dilemmas can be seen to be the issues presented by these two myths” (Back 330). Opening the black boxes that these stories and myths have become allows us to rewrite the narratives associated with them.

**Frankenstein: Tension between Science and the Natural Order**

*Frankenstein* stands at a crossroads, bridging the gap between the two literary genres of romanticism (especially the gothic) and science fiction. While romanticism dealt with nature and conditions of natural society, writers conceived science fiction as a response to the rapid change in science and technology brought about by the Industrial Revolution in late eighteenth-century Europe. This bridging function becomes evident in the way the novel deals with the subject of the reanimation of the dead set against the role family. Instead of using the supernatural to explain what takes place in the action of the novel, something quite common in gothic literature, *Frankenstein* uses science to explain the construction of the Creature. This tension between familial duty and scientific inquiry represents the primary theme of the novel.

Many critics of science fiction call it the first work of this literary genre; chief among them noted science fiction author and critic Brian W. Aldiss (18). In his Hugo winning study *Trillion Year Spree*, Aldiss starts his account with an analysis of the way literature changed at the end of the eighteenth century. Though Shelley had no concept of the term “science fiction” (editor Hugo Gernsback introduced the term in 1929 and only then as the unwieldy “scientifiction”), her writing stands as its origin. While audiences still wanted to be thrilled and shocked by what they read, authors such as Shelley, influenced by the changes in industrial and scientific innovation going on in the world around them, turned to science and scientists as foils. The Industrial Revolution served as the most significant change affecting society when Shelley wrote *Frankenstein*. Beginning in Britain and still in its infancy in 1818, the Industrial
Revolution rapidly transformed manufacturing processes and the production of material goods. Machinery starting producing traditionally handcrafted items, as the early stages of semiautomation began. Interchangeable parts on machinery made them more resilient to failure and, eventually, more prevalent than previous manufacturing methods. A subsequent dependence of workers on the scientific processes and technological products became an integral part of society. Managers no longer valued the skilled worker; machinery could turn out materials of equivalent worth in much shorter amounts of time.

Shelley’s novel serves as a critique of man’s changing interaction with nature through scientific methods not as an indictment of science itself:

The myth of Frankenstein registers the anxieties of the period inaugurated in the twin social and industrial revolutions in France and Britain…. The myth which [sic] develops out of it turns repeatedly upon these new problems of an age in which humanity seizes responsibility for re-creating the world, for violently reshaping its natural environment and its inherited social and political forms, for remaking itself. (Baldick 5)

Frankenstein portrays the tension between the old and the new—the early modern and the modern—and becomes the rallying cry for those who believe technologies impinge upon society’s stability. Instead of just re-creating the world, science stands on the brink of re-creating the human.

Shelley uses a series of nested framing narratives to tell the story of Frankenstein, distancing the reader from the action of the novel. Shelley constructs the first frame as a series of letters written by an arctic explorer by the name of Walton to his sister in England. In his letters, Walton relates how he and his crew seek a shortcut to the North Pacific. He outlines his specific motivations to his sister in his first letter:

I may there [the Arctic] discover the wondrous power which [sic] attracts the needle; and may regulate a thousand celestial observations, that require only this voyage to render their seeming eccentricities consistent for ever. I shall satiate my ardent curiosity with the sight of a part of the world never before visited, and may tread a land never before imprinted by the foot of man [emphasis added]. (Shelley 7) [Ed Note: All references to Shelley’s work are to the original 1818 Frankenstein text.]

Walton describes what Victor Frankenstein hopes to accomplish with his research. Frankenstein wants to visit a place “never before visited,” the reanimation of dead flesh. Shelley intentionally draws parallels between Walton and Frankenstein. In both cases, the two risk their lives by transgressing the previous boundaries of knowledge, and do so in relative isolation:

All three of the narrators in the novel are self-educated, and fall victim to this problem; seeking knowledge in solitude, they are condemned to find only a more distressing knowledge of solitude. Bearing in mind this implied critique of solitude…we can concede that the novel is indeed about the perils of discovery. (Baldick 46)
By setting up these parallel stories, Shelley demonstrates that the story depicts more than just the creation of artificial life. It also represents any sort of discovery done in isolation, free from the norms and values of society. Such knowledge seeking becomes hazardous, as two of the three narrators ultimately discover. While their own actions destroy Victor and the Creature, Walton saves himself by learning from their example and does not conduct secretive work. The audience feels sympathy for those on his quest. While it may be too late for some to learn from their mistakes, Shelley indicates that others have a choice about how they will proceed.

As Walton continues to send letters to his sister, the reader learns that the journey starts to become quite hazardous. The men start grumbling about the trip and want to turn back and return home. As Walton debates his course of action, the crew observes a figure in a sledge traveling on the ice. The next morning, the crew comes upon a second figure, and rescues him. As he nursed back to health by Walton, he begins to relate a story.

The man, Victor Frankenstein, serves as the primary narrator of the text. The nested narrative, as well as distancing the reader from the action, also calls into question the reliability of the stories as one party relates them to another. This framing narrative becomes even more multi-layered later in the novel when Victor relates the story the Creature tells him—the entirety of Volume II.

At first glance, the novel does indeed seem to be solely about the foibles of scientific research that pushes the boundaries of knowledge. At an early age, Victor becomes enamored of the works of Cornelius Agrippa, Paracelsus, and Albert Magnus, physicians and scientists of the middle ages. However, after witnessing the effects of a lightning strike on a tree and his father’s subsequent explanation and demonstration of electricity, Victor stops examining the works of the past and enrolls in the University of Ingolstadt to study. This transition from the old to the modern as the focus of Victor’s studies proves pivotal, as it sets him on his way to explore the possibility of reanimating dead flesh by using electricity. Victor eventually succeeds by applying the scientific method to his studies. In essence, this represents one of Shelley’s themes: the creation of the modern world through scientific developments.

While ultimately successful in his quest to reanimate life, Victor expresses moral repulsion for the Creature’s physical hideousness:

> 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 [sic] complexion, and straight black lips. (Shelley 34)

Victor runs away from his laboratory, hoping to distance himself from the hideous creature. In abandoning his offspring, Victor sets the events of the novel in motion: the work demonstrates the necessity of parental responsibility and familial relations, not the destructive power of science.

Victor’s rejection of his “son” causes the Creature to go out on his own and experience
Because he inspires almost universal repulsion, the Creature hides away from other people, learning about the world and teaching himself how to speak through the reading of books, including *Plutarch’s Lives* and *Paradise Lost*. Milton’s work, in a fashion similar to *Frankenstein*, tells the story about a new type of offspring (Adam) and his relationship with his father (God). However, the Creature notes the dissimilarities between himself and Adam when speaking to Victor:

> Like Adam, I was created apparently united by no link to any other being in existence; but his state was far different from mine in every other respect. He had come forth from the hands of God a perfect creature, happy and prosperous, guarded by the especial care of his Creator; he was allowed to converse with, and acquire knowledge from beings of a superior nature: but I was wretched, helpless, and alone. Many times I considered Satan as the fitter emblem of my condition…

While G-d punishes Adam for his transgressions and casts him out from the Garden of Eden, Victor casts the Creature out for simply existing. Furthermore, the Creature’s identification with Satan explains the adversarial nature between him and Victor for the rest of the novel. The books Shelley chooses for the Creature’s education accentuate the tension between the old, pastoral ways of the Romantic period and the modern world unfolding in the early nineteenth century. *Plutarch’s Parallel Lives* describes the virtues of famous individuals from the ancient Greek and Roman cultures. Milton’s *Paradise Lost* helped formulate the western representation of Satan—who receives little mention in the Judeo-Christian Bible—as well as a more detailed story of the creation of Adam and Eve in the Garden of Eden. Both these works pay homage to the classical world, and the belief systems embraced by them:

> The subject-matter of *Paradise Lost* happens to be the most powerfully authorized creation myth in Western culture. Moreover, it elaborates upon the connections between two kinds of myth: a myth of creation and a myth of transgression. *Frankenstein* does this too, but its sinister travesty collapses the two kinds of myth together so that now creation and transgression appear to be the same thing. (Balick 40)

By having the Creature learn from reading this story, Shelley clearly sets the Creature and Victor’s up bringing and worldview in opposition. The Creature adheres to the old, romantic notions of life he learned about in his studies while Victor embraces the more modern aspects he learned about at university, such as science.

*Frankenstein*’s subtitle *The Modern Prometheus* alludes to the myth of Prometheus and his punishment for the theft of fire and the creation of the human race. Unlike Prometheus, punished for his transgressions by the gods, Victor receives retribution from his offspring, not for his act itself but for his subsequent behavior. Victor’s reluctance in acknowledging his paternal responsibilities to the Creature infuriates the Creature and starts him on his homicidal spree. Through this portrayal, Shelley offers a critique of science without responsibility and without governance.

In examining the plot of *Frankenstein*, it becomes clear that Victor represents the real
“monster” in *Frankenstein*. While the Creature exists alone in the world, educating himself in secret, Victor has had all the advantages of modern society. Even so, he squanders his potential not by creating the Creature but by doing so in isolation without guidance and without conceiving of the potential effects. When the Creature confronts Victor, he lays the blame for his nature at Victor’s feet:

“Remember, that I am thy creature: I ought to be thy Adam; but I am rather the fallen angel, whom thou drivest from joy for no misdeed. Every where [sic] I see bliss, from which I alone am irrevocably excluded. I was benevolent and good; misery made me a fiend. Make me happy, and I shall again be virtuous.” (66)

Given this opportunity to redeem himself by creating a mate for the Creature, and thus finally taking responsibility for his offspring and his actions, Victor refuses. The Creature’s kills Victor’s wife Elizabeth on their wedding day as the ultimate revenge for this response. Now alone, Victor pursues the Creature to the Arctic with fatal results for Frankenstein and presumably the Creature.