FRANKENSTEIN
MARY SHELLEY

ANNOTATED FOR SCIENTISTS, ENGINEERS, AND CREATORS OF ALL KINDS

EDITED BY
DAVID H. GUSTON, ED FINN, AND JASON SCOTT ROBERT
Mary Wollstonecraft Shelley (UK: /ˈwʊlstəŋkræft/, US: /-kræft/; née Godwin; 30 August 1797 – 1 February 1851) was an English novelist who wrote the Gothic novel *Frankenstein; or, The Modern Prometheus* (1818). She also edited and promoted the works of her husband, the Romantic poet and philosopher Percy Bysshe Shelley. Her father was the political philosopher William Godwin and her mother was the philosopher and feminist Mary Wollstonecraft. Shelley's mother died less than a month after giving birth to her. She was raised by her father who was able to provide her with a rich if informal education, encouraging her to adhere to his own anarchist political theories. When she was four, her father married a neighbor with whom Shelley came to have a troubled relationship.

In 1814, Shelley began a romance with one of her father's political followers, Percy Bysshe Shelley, who was already married. Together with her stepsister, Claire Clairmont, she and Percy left for France and traveled through Europe. Upon their return to England, Shelley was pregnant with Percy's child. Over the next two years, she and Percy faced ostracism, constant debt and the death of their prematurely born daughter. They married in late 1816, after the suicide of Percy Shelley's first wife, Harriet.

In 1816, the couple famously spent a summer with Lord Byron, John William Polidori and Claire Clairmont near Geneva, Switzerland, where Shelley conceived the idea for her novel *Frankenstein*. The Shelleys left Britain in 1818 for Italy, where their second and third children died before Shelley gave birth to her last and only surviving child, Percy Florence Shelley. In 1822, her husband drowned when his sailing boat sank during a storm near Viareggio. A year later, Shelley returned to England and from then on devoted herself to the upbringing of her son and a career as a professional author. The last decade of her life was dogged by illness, most likely caused by the brain tumour which killed her at age 53.

Until the 1970s, Shelley was known mainly for her efforts to publish her husband's works and for her novel *Frankenstein*, which remains widely read and has inspired many theatrical and film adaptations. Recent scholarship has yielded a more comprehensive view of Shelley's achievements. Scholars have shown increasing interest in her literary output, particularly in her novels, which include the historical novels *Valperga* (1823) and *Perkin Warbeck* (1830), the apocalyptic novel *The Last Man* (1826) and her final two novels, *Lodore* (1835) and *Falkner* (1837). Studies of her lesser-known works, such as the travel book *Rambles in Germany and Italy* (1844) and the biographical articles for Dionysius Lardner's *Cabinet Cyclopaedia* (1829–1846), support the growing view that Shelley remained a political radical throughout her life. Shelley's works often argue that cooperation and sympathy, particularly as practiced by women in the family, were the ways to reform civil society. This view was a direct challenge to the individualistic Romantic ethos promoted by Percy Shelley and the Enlightenment political theories articulated by her father, William Godwin.
connected classifications, the facts which they in a great degree had been the instruments of bringing to light. The labours of men of genius, however erroneously directed, scarcely ever fail in ultimately turning to the solid advantage of mankind.”  

I listened to his statement, which was delivered without any presumption or affectation; and then added, that his lecture had removed my prejudices against modern chemists; and I, at the same time, requested his advice concerning the books I ought to procure.

“I am happy,” said M. Waldman, “to have gained a disciple; and if your application equals your ability, I have no doubt of your success. Chemistry is that branch of natural philosophy in which the greatest improvements have been and may be made; it is on that account that I have made it my peculiar study; but at the same time I have not neglected the other branches of science. A man would make but a very sorry chemist, if he attended to that department of human knowledge alone. If your wish is to become really a man of science, and not merely a petty experimentalist, I should advise you to apply to every branch of natural philosophy, including mathematics.”

He then took me into his laboratory, and explained to me the uses of his various machines; instructing me as to what I ought to procure, and promising me the use of his own, when I should have advanced far enough in the science not to derange their mechanism. He also gave me the list of books which I had requested; and I took my leave.

Thus ended a day memorable to me; it decided my future destiny.

CHAPTER III.

From this day natural philosophy, and particularly chemistry, in the most comprehensive sense of the term, became nearly my sole occupation. I read with ardour those works, so full of genius and discrimination, which modern inquirers have written on these subjects. I attended the lectures, and cultivated the acquaintance, of the men of science of the university; and I found even in M. Krempe a great deal of sound sense and real information, combined, it is true, with a repulsive physiognomy and manners, but not on that account the less valuable. In M. Waldman I found a true friend.

31. A major rationale for the autonomy of science and scientists—that is, their ability to make their own choices free from interference by governments or lay people—in their pursuit of knowledge is the presumed certainty of the superior instrumental outcome of that pursuit, regardless of the potential presence of error or bias. According to chemist and philosopher of science Michael Polanyi, the ideal organization is “scientists, freely making their own choice of problems and pursuing them in the light of their own personal judgment” (1962, 54).

David H. Guston.
His gentleness was never tinged by dogmatism; and his instructions were given with an air of frankness and good nature, that banished every idea of pedantry. It was, perhaps, the amiable character of this man that inclined me more to that branch of natural philosophy which he professed, than an intrinsic love for the science itself. But this state of mind had place only in the first steps towards knowledge: the more fully I entered into the science, the more exclusively I pursued it for its own sake. That application, which at first had been a matter of duty and resolution, now became so ardent and eager, that the stars often disappeared in the light of morning whilst I was yet engaged in my laboratory.

As I applied so closely, it may be easily conceived that I improved rapidly. My ardour was indeed the astonishment of the students; and my proficiency, that of the masters. Professor Krempe often asked me, with a sly smile, how Cornelius Agrippa went on? whilst M. Waldman expressed the most heartfelt exultation in my progress. Two years passed in this manner, during which I paid no visit to Geneva, but was engaged, heart and soul, in the pursuit of some discoveries, which I hoped to make. None but those who have experienced them can conceive of the enticements of science. 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. A mind of moderate capacity, which closely pursues one study,

32. The idea of a having a single scientific mentor is not ideal, and Victor knows this well. He is mentored by two complementary, imperfect, and valuable individuals—namely, M. Krempe and M. Waldman. We see that scientific mentoring does not take place in a vacuum. Developmental psychologist Jean Piaget described the process of intellectual development with the words “intelligence organizes the world by organizing itself” (quouted in Chess and Hassibi 1978, 63). One reading of Piaget suggests that he models learning as a complex adaptive system, and so as the human body experiences stimuli, it begins to organize and anticipate stimuli, creating complex systems of mental actions and anticipated results in an effort to predict and control stimuli to generate more favorable results. As a result, collaborative interactions among individuals with different perspectives and experiences (mentor and mentee) provide conversational stimuli for developing new understandings. L. S. Vygotsky, citing Piaget, describes a similar process: "Such observations [of child argumentation] prompted Piaget to conclude that communication produces the need for checking and confirming thoughts, a process that is characteristic of adult thought" (1978, 90). Mentor–mentee dynamics create the stimuli that drive Victor’s curiosity, creativity, and learning. M. Waldman, who loves chemistry, notes that “I have not neglected the other branches of science” (p. 31), impressing the importance of interdisciplinary learning on Victor. As this passage shows, passion for learning is also the outcome of dual mentorship: “natural philosophy, and particularly chemistry, in the most comprehensive sense of the term, became nearly my sole occupation.” Finally, the search for knowledge, regardless of direction, drives Victor’s research. Discipline, passion, focus, and effective diverse mentorship philosophies characterize Victor’s status at this time.

Carlos Castillo-Chavez.
must infallibly arrive at great proficiency in that study; and I, who continu-
ally sought the attainment of one object of pursuit, and was solely wrapt
up in this, improved so rapidly, that, at the end of two years, I made some
discoveries in the improvement of some chemical instruments, which
procured me great esteem and admiration at the university. When I had
arrived at this point, and had become as well acquainted with the theory
and practice of natural philosophy as depended on the lessons of any of the
professors at Ingolstadt, my residence there being no longer conducive
to my improvements, I thought of returning to my friends and my native
town, when an incident happened that protracted my stay.

One of the phenomena which had peculiarly attracted my attention
was the structure of the human frame, and, indeed, any animal endued
with life. Whence, I often asked myself, did the principle of life proceed? It
was a bold question, and one which has ever been considered as a mystery;
yet with how many things are we upon the brink of becoming acquainted,
if cowardice or carelessness did not restrain our inquiries. I revolved these
circumstances in my mind, and determined thenceforth to apply myself
more particularly to those branches of natural philosophy which relate to
physiology. Unless I had been animated by an almost supernatural enthu-
siasm, my application to this study would have been irksome, and almost
intolerable. To examine the causes of life, we must first have recourse
to death. I became acquainted with the science of anatomy: but this was not
sufficient; I must also observe the natural decay and corruption of the
human body. In my education my father had taken the greatest precautions
that my mind should be impressed with no supernatural horrors. I do not
ever remember to have trembled at a tale of superstition, or to have feared
the apparition of a spirit. Darkness had no effect upon my fancy; and a
church-yard was to me merely the receptacle of bodies deprived of life,
which, from being the seat of beauty and strength, had become food for the
worm. Now I was led to examine the cause and progress of this decay, and
forced to spend days and nights in vaults and charnel houses. My attention
was fixed upon every object the most insupportable to the delicacy of the
human feelings. I saw how the fine form of man was degraded and wasted;
I beheld the corruption of death succeed to the blooming cheek of life; I
saw how the worm inherited the wonders of the eye and brain. I paused,
examining and analysing all the minutiae of causation, as exemplified in
the change from life to death, and death to life, until from the midst of this
darkness a sudden light broke in upon me—a light so brilliant and won-
drous, yet so simple, that while I became dizzy with the immensity of the
prospect which it illustrated, I was surprised that among so many men of
genius, who had directed their inquiries towards the same science, that I alone should be reserved to discover so astonishing a secret.33

Remember, I am not recording the vision of a madman. The sun does not more certainly shine in the heavens, than that which I now affirm is true. Some miracle might have produced it, yet the stages of the discovery were distinct and probable. After days and nights of incredible labour and fatigue, I succeeded in discovering the cause of generation and life; nay, more, I became myself capable of bestowing animation upon lifeless matter.34

The astonishment which I had at first experienced on this discovery soon gave place to delight and rapture. After so much time spent in painful labour, to arrive at once at the summit of my desires, was the most gratifying consummation of my toils. But this discovery was so great and overwhelming, that all the steps by which I had been progressively led to it were obliterated, and I beheld only the result. What had been the study and desire of the wisest men since the creation of the world, was now within my grasp. Not that, like a magic scene, it all opened upon me at once: the information I had obtained was of a nature rather to direct my endeavours so soon as I should point them towards the object of my search, than to exhibit that object already accomplished. I was like the Arabian who had been buried with the dead, and found a passage to life aided only by one glimmering, and seemingly ineffectual, light.

I see by your eagerness, and the wonder and hope which your eyes express, my friend, that you expect to be informed of the secret with which I am acquainted; that cannot be: listen patiently until the end of my story,
and you will easily perceive why I am reserved upon that subject. I will not lead you on, unguarded and ardent as I then was, to your destruction and infallible misery. 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 become greater than his nature will allow.

When I found so astonishing a power placed within my hands, I hesitated a long time concerning the manner in which I should employ it. Although I possessed the capacity of bestowing animation, yet to prepare a frame for the reception of it, with all its intricacies of fibres, muscles, and veins, still remained a work of inconceivable difficulty and labour.

35. Victor engages materiality in a much different manner than his not-so-distant pre-Enlightenment European brethren. He equates “life” with animate human bodies; however, animated life is found throughout Earth in a variety of organic forms. Do not simple cells move and have life? Plants also move, though most of them quite slowly, and have frames composed of “fibres, muscles, and veins” conceptually analogous to those of animals. What of plants’ visible animation, seeming to indicate volition: vines creeping along the sides of buildings toward where there is more light, sunflowers’ “faces” following the path of the sun, predatory Venus flytraps moving quite quickly to ensnare their victims, and the Mimosa pudica, the “sleepy plant” in Mesoamerica (also found in Melanesia and Africa), shy ing when touched and then recomposing itself after apparent danger has subsided? When do we, if we do, grant plants, nonhuman animals, and human animals volition and at what stage of life? Do only human animals have emotions and volition? Do simple cells shy away if they are nudged or pricked and move away if they bump into another mobile simple cell?

Miguel Astor-Aguilera.

36. Victor finds himself chasing a “frame” of flesh and its union with life. His ambition reflects several forms of mechanistic thought current at the time Mary wrote Frankenstein: an understanding of biological systems as physical machines controlled solely by physical laws. Nineteenth-century biology and physiology embraced and developed mechanistic perspectives while at the same time discarding earlier kindred understandings of the body. In the seventeenth century, the conceptualization of the human body by René Descartes (1596–1650) was similarly mechanistic, but he explained the transition from physical machine to a living, thinking entity as an act of God. The deity endowed otherwise idle material with consciousness. By Mary’s time, the latter part of Decartes’s argument had lost favor, but mechanistic ideas had gained scientific prominence.

Victor’s “frame” is a product of part-by-part fabrication and lacks “animation”—then a term for the state of being alive. His power makes the idle machine something living. In a sense, the story presents a separation between body and consciousness similar to the one championed by Descartes. And yet no deity is at work. Victor installs life into his constructed “frame” using only his scientific prowess.

Mechanistic thought remains an important part of the life sciences, and the ambition to build frames for life is found in twenty-first-century efforts to produce so-called protocells or, in the language of some synthetic biologists, the “chassis.” The structures, built with basic chemicals “from the ground up,” are envelopes for biological phenomena. Although present-day research is unlikely to deliver anything like Mary’s creature, it holds to a similar concept of life as machine. Descartes long ago lost his place in the natural sciences, and Victor’s power has yet to be realized, but mechanistic thinking persists.

Pablo Schyfter.
I doubted at first whether I should attempt the creation of a being like myself or one of simpler organization; but my imagination was too much exalted by my first success to permit me to doubt of my ability to give life to an animal as complex and wonderful as man. The materials at present within my command hardly appeared adequate to so arduous an undertaking; but I doubted not that I should ultimately succeed. I prepared myself for a multitude of reverses; my operations might be incessantly baffled, and at last my work be imperfect: yet, when I considered the improvement which every day takes place in science and mechanics, I was encouraged to hope my present attempts would at least lay the foundations of future success. Nor could I consider the magnitude and complexity of my plan as any argument of its impracticability. It was with these feelings that I began the creation of a human being.

37. Although Victor begins this passage hesitant of his ability to create a creature like himself, he says that his imagination overtake his questions. He pictures his imagination as an element of his personality motivated by its own success. The idea of imagination as internal to the self might remind the modern reader of the concept of the ego as developed by psychologist Sigmund Freud more than one hundred years after Mary wrote *Frankenstein* ([The Ego and the Id](1923) 1960). Freud’s ego is that part of the human psyche modified by external forces. The success of his initial work leaves Victor unable to doubt this ability to create a human life. In a cyclical fashion, detached from material realities, this type of imagination is empowered by its own interplay internally. The ability to act based on imagination and the changing of the imagination itself in relation to those actions are fundamental to Victor’s understanding of the concept.

Hannah Rogers.

38. With “creation,” Mary draws on some of the widest possible literary themes, and the biblical resonances are emphasized by the creature himself. But creativity and the labor of one’s hands had multiple significances within wider nineteenth-century society, as they do today. It is not often recognized, for instance, that creativity and labor play a crucial role in legitimizing the idea of “property.” How do we justify establishing ownership over something? One important argument, most directly associated with the political philosophy of John Locke (1632–1704), stated that applying one’s labor to nature through writing, crafting, and so on made that creation one’s property (see Locke 1821). For example, earthen clay, once owned by everyone, through a transformative act of labor and creativity (so the argument goes) becomes a single person’s property.

Through *Frankenstein*, we can therefore question scientific work and its ownership. Although we might arbitrarily decide that humans are exempt from being classed as property—a decision not yet achieved in Mary’s time—what of the creature? Is it right to think of the term creation as implying ownership? Or what of the ownership of children created by parents? Or what of the ownership of any nonhuman organism for that matter? Should it be the case that merely the act of laboring on something makes it property? The existence of Victor’s potential proprietary rights in his work and his (irresponsible?) refusal to acknowledge those rights allow us to generalize the significance of his creative act. Perhaps it is not in the creation of a human that he errs but in the conceptualization of his labors.

Dominic Berry.
hindrance to my speed, I resolved, contrary to my first intention, to make the being of a gigantic stature; that is to say, about eight feet in height, and proportionally large. After having formed this determination, and having spent some months in successfully collecting and arranging my materials, I began.

No one can conceive the variety of feelings which bore me onwards, like a hurricane, in the first enthusiasm of success. Life and death appeared to me ideal bounds, which I should first break through, and pour a torrent of light into our dark world. A new species would bless me as its creator and source; many happy and excellent natures would owe their being to me. No father could claim the gratitude of his child so completely as I should deserve their's. Pursuing these reflections, I thought, that if I could bestow animation upon lifeless matter, I might in process of time (although I now

39. The religious language of this passage connects Victor’s ambitions to a long tradition of humans playing god. In Jewish folklore, for instance, several great rabbis are said to have made clay animate, much as Adam was formed from clay according to biblical legend. These animated clay creatures are known as golems, and they resemble men except for the fact that they are mindlessly obedient. Following orders literally, they inevitably become destructive, revealing their creators’ arrogance by showing those creators’ limited foresight and the perils of hubris. Similar patterns play out in many cautionary tales about technology, such as R.U.R. by Karel Čapek and Josef Čapek (1920), a play in which robots confound the expectations of their builders by becoming violently rebellious. And yet although we are philosophically attuned to our arrogance, and although hubris is a persistent theme in mythology and literature (including Frankenstein), the temptation to play god seems only to increase with the increasing power of science and technology. This phenomenon is especially evident in two fields of active research: synthetic biology and artificial intelligence (Al). Central to the agenda of synthetic biology is a literal desire to create new species: for example, bespoke organisms such as Mycoplasma mycoides JCVI-syn1.0, which the J. Craig Venter Institute made in 2010 by inserting a lab-assembled genome into a bacterium. The promise of synthetic biology is total genetic control of organisms that can bless us with new foods, drugs, and fuels. The peril is that the future behavior of such bespoke organisms, like that of the Čapeks’ robots, cannot be completely predicted. Al is arguably even more hubristic—and perilous—because of the potential for machine intelligence to exceed—or be incomprehensible by—human intelligence. From a superhuman Al’s perspective, arrogant Homo sapiens might be deemed as dangerously irrational as Victor’s creature or golems.

Jonathon Keats.

40. There is a notion that scientists become so engrossed in their own pursuits that they forget that they are “standing on the shoulders of giants,” as Sir Isaac Newton (1642–1726) put it, and instead feel overweening pride of ownership in the science they are studying and in the results of their research. Such an attitude, occurring time and again in the history of science, impedes scientific progress. In science, knowledge cannot be owned by anyone. Knowledge must be shared, must be questioned, must be built upon. Here Victor gets lost in his own ability as a scientist. He forgets that although he may create something new (be it knowledge or life), he is not truly the owner of those creations.

Melissa Wilson Sayres.
found it impossible) renew life\textsuperscript{41} where death had apparently devoted the body to corruption.\textsuperscript{42}

These thoughts supported my spirits, while I pursued my undertaking with unremitting ardour. My cheek had grown pale with study, and my person had become emaciated with confinement. Sometimes, on the very brink of certainty, I failed; yet still I clung to the hope which the next day or the next hour might realize. One secret which I alone possessed was the hope to which I had dedicated myself; and the moon gazed on my midnight labours, while, with unrelaxed and breathless eagerness, I pursued nature to her hiding places.\textsuperscript{43} Who shall conceive the horrors of my secret toil,

\textsuperscript{41.} Victor here implies flesh-and-blood immortality because the universe inherently and automatically renews life from death. All life on Earth depends on things cyclically dying as other things, including humans, procreate, live, flourish, and eventually die as the cycle continues. Victor, due to the very emotional personal experience of having a person he loves pass unto death, desires that humans need not to die and hence is driven to seek the "secret" to life regeneration. Life renewing from death is present in biblical scripture (Genesis 3:19, 18:27; Job 30:19; Ecclesiastes 3:20) as well as in the Anglican Christian Book of Common Prayer (Burial Rite 1:485, 2:501) and is a topic highly present, though different ontologically from Judeo-Christian-Muslim views, in indigenous cosmologies (Astor-Aguilera 2010). Some of the world's societies have been known to practice infanticide or care for their elderly only up until they become too much of a burden on the younger population, which needs a certain amount of resources to survive. How old is old enough for a human to live and at what cost to Earth's resources? Should humans not die at all and be perpetually regenerated through scientific breakthroughs? Miguel Astor-Aguilera.

\textsuperscript{42.} Victor articulates a set of hypothesized or imagined consequences for his research should it succeed, including the conquering of death and the creation of a race of beings who would worship him. These "imaginaries" are fictions that follow, reasonably but not necessarily, from success in his research. Perhaps at this point, Victor might have explored what fictions might reasonably but not necessarily follow from failure or from a different or incomplete kind of success. David H. Guston.

\textsuperscript{43.} Victor chooses to conduct his experiments with life in secret; he isolates himself from friends, family, and colleagues at his university. The isolation is both geographical and social. During the period of feverish research and creation, he doesn't exchange correspondence or share his ideas with anyone.

Isolation makes it possible for Victor to undertake his grisly and socially unacceptable project. Certainly, his colleagues and family would have intervened to stop him. But Victor's self-imposed isolation also makes it impossible for the creature to gain access to the social resources he needs to construct a livable life (J. Butler 2010). He is cut off from the possibility of family, friends, and membership in society. He removes himself from the structured and institutionalized relationships that we depend on for sustenance, fellowship, and relief, such as education, health care, and a humane justice system.

An individual depends in countless ways on being recognized as a social being—as a person with feelings and rights, enjoying fellowship in social groups, relying on institutions to provide support, to safeguard our rights, and to care for us when we are in need. Victor's decision to conduct his work in isolation and his abandonment of the creature at birth makes it impossible for the creature ever to achieve this social legibility and to participate functionally in society.
as I dabbled among the unhallowed damps of the grave, or tortured the living animal to animate the lifeless clay? 44 My limbs now tremble, and my eyes swim with the remembrance; but then a resistless, and almost frantic impulse, urged me forward; I seemed to have lost all soul or sensation but for this one pursuit. It was indeed but a passing trance, that only made me feel with renewed acuteness so soon as, the unnatural stimulus ceasing to operate, I had returned to my old habits. I collected bones from charnel houses; and disturbed, with profane fingers, the tremendous secrets of the human frame. In a solitary chamber, or rather cell, at the top of the house, and separated from all the other apartments by a gallery and staircase, I kept my workshop of filthy creation; my eyeballs were starting from their sockets in attending to the details of my employment. The dissecting room and the slaughter-house furnished many of my materials; and often did my human nature turn with loathing from my occupation, whilst, still urged on by an eagerness which perpetually increased, I brought my work near to a conclusion. 45

As a result, we see the creature as a vagrant, an outlaw, and a vigilante throughout the novel. All of these identities are built on a foundation of social exclusion. Victor’s isolation means that the creature has little choice but to become a monster. He is left with no pathways into a peaceful life inside of human society.

Joey Eschrich.

44. Victor’s grave robbing and torture of animals raise the following questions: Do the ends ever justify the means in research or in other areas? If useful data can be gathered through unethical means, should they be? And if such data are so gathered, ought they to form part of the evidence base of science? Analysis of the history of human experimentation in the twentieth century comes solidly down on the negative answer, based on experiences like those of concentration camp inmates experimented on by Nazi doctors during World War II and of African Americans and Guatemalans experimented on by US Public Health Service researchers in the decades following the war. The principles of bioethics hold that human beings may never be used solely as experimental means to a scientific end, but human autonomy can also create an affirmative role for self-sacrifice, allowing people ethically to volunteer for dangerous experiments. Some bioethicists also argue that if a practice is physically or viscerally repugnant—“the horrors of my secret toil,” in Victor’s words (p. 38)—then the practice is at least suspect of being morally repugnant. For a time, the ethical debate about human embryonic stem cell research focused on whether medical science should be permitted to progress based on research that was putatively unethical in its destruction of human embryos to derive human pluripotent stem cells. Is such research always spoiled as the fruit of evil exploits?

David H. Guston and Jason Scott Robert.

45. Victor here expresses pangs of conscience as he reflects on his singular goal of animating life. To what extent he sees his conscience as a reliable guide is not clear, for in the end he continues his activities despite these reservations. A sharp emotional reaction of loathing cannot overcome his intense drive, his eagerness, to complete his task of animating life. Here the novel gives expression to the tension between emotional, morally significant reactions and human desire and drive.

Joel Gereboff.
The summer months passed while I was thus engaged, heart and soul, in one pursuit. It was a most beautiful season; never did the fields bestow a more plentiful harvest, or the vines yield a more luxuriant vintage: but my eyes were insensible to the charms of nature. And the same feelings which made me neglect the scenes around me caused me also to forget those friends who were so many miles absent, and whom I had not seen for so long a time. I knew my silence disquieted them; and I well remembered the words of my father: “I know that while you are pleased with yourself, you will think of us with affection, and we shall hear regularly from you. You must pardon me, if I regard any interruption in your correspondence as a proof that your other duties are equally neglected.”

I knew well therefore what would be my father’s feelings; but I could not tear my thoughts from my employment, loathsome in itself, but which had taken an irresistible hold of my imagination. I wished, as it were, to procrastinate all that related to my feelings of affection until the great object, which swallowed up every habit of my nature, should be completed.

I then thought that my father would be unjust if he ascribed my neglect to vice, or faultiness on my part; but I am now convinced that he was justified in conceiving that I should not be altogether free from blame. A human being in perfection ought always to preserve a calm and peaceful mind, and never to allow passion or a transitory desire to disturb his tranquillity. I do not think that the pursuit of knowledge is an exception to this rule. If the study to which you apply yourself has a tendency to weaken your affections, and to destroy your taste for those simple pleasures in which no alloy can possibly mix, then that study is certainly unlawful, that is to say, not befitting the human mind. If this rule were always observed; if no man allowed any pursuit whatsoever to interfere with the tranquillity of his domestic affections, Greece had not been enslaved; Cæsar would have spared his country; America would have been discovered more gradually; and the empires of Mexico and Peru had not been destroyed.

But I forget that I am moralizing in the most interesting part of my tale; and your looks remind me to proceed.

My father made no reproach in his letters; and only took notice of my silence by inquiring into my occupations more particularly than before.

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46. Victor’s unease at dealing with body parts from the dead is overpowered by the force of his imagination propelling him to complete his work. The relationship between imagination, creativity, and conventional views expressed in this case as strongly negative emotions recurs throughout the novel. And in sticking with his project, Victor overcomes his own feelings and dismisses his father’s. At hand is the question of to what extent feelings express with accuracy what ought to be done morally.

Joel Gereboff.
Winter, spring, and summer, passed away during my labours; but I did not
watch the blossom or the expanding leaves—sights which before always
yielded me supreme delight, so deeply was I engrossed in my occupation.
The leaves of that year had withered before my work drew near to a close;
and now every day shewed me more plainly how well I had succeeded. But
my enthusiasm was checked by my anxiety, and I appeared rather like one
doomed by slavery to toil in the mines, or any other unwholesome trade, than
an artist occupied by his favourite employment. Every night I was oppressed
by a slow fever, and I became nervous to a most painful degree; a disease
that I regretted the more because I had hitherto enjoyed most excellent
health, and had always boasted of the firmness of my nerves. But I believed
that exercise and amusement would soon drive away such symptoms; and I
promised myself both of these, when my creation should be complete.

CHAPTER IV.

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

How can I describe my emotions at this catastrophe, or how delineate the
wretch whom with such infinite pains and care I had endeavoured to form?

47. Mary refers to a “spark” that animates Victor’s creature and brings him to life. This reference
alludes to the use of electricity to reanimate a body, a relatively new idea at the time of this
novel’s publication. Toward the end of the eighteenth century, Luigi Galvani (1737–1798) had
demonstrated the use of electrical current to activate muscle, a discovery he made on dissected
frog legs. Mary was well aware of these experiments, and Galvani’s work was one of her main
influences in generating the idea for her novel. Furthermore, these principles have endured in
medicine. Today, electric stimulation is used to aid millions of human bodies with everything
from defibrillators and pacemakers to partial treatments for paralysis and systems that link
prosthetic limbs and cameras to the brain.

Stephanie Naufel.

48. Emotions again serve to express assessments. On the surface, they are assumed to be correct
moral judgments, though in the end their accuracy is questioned implicitly when Victor’s rejection
and horror drive the creature away and lead over time to the creature’s loneliness. The experience of
isolation and deprivation of basic social relations turn the creature from a natural disposition toward
goodness to a disposition toward evil that impels him to engage in horrific and destructive acts.

Joel Gereboff.
His limbs were in proportion, and I had selected his features as beautiful. Beautiful!—Great God! His yellow skin scarcely covered the work of muscles and arteries beneath; his hair was of a lustrous black, and flowing; his teeth of a pearly whiteness; but these luxuriances only formed a more horrid contrast with his watery eyes, that seemed almost of the same colour as the dun white sockets in which they were set, his shrivelled complexion, and straight black lips. 49

The different accidents of life are not so changeable as the feelings of human nature. I had worked hard for nearly two years, for the sole purpose of infusing life into an inanimate body. 50 For this I had deprived myself of rest and health. I had desired it with an ardour that far exceeded moderation; but now that I had finished, the beauty of the dream vanished, and breathless horror and disgust filled my heart. Unable to endure the aspect of the being I had created, I rushed out of the room, and continued a long time traversing my bed-chamber, unable to compose my mind to sleep. At length lassitude succeeded to the tumult I had before endured; and I threw myself on the bed in my clothes, endeavouring to seek a few moments of forgetfulness. But it was in vain: I slept indeed, but I was disturbed

49. Victor characterizes the moment he succeeds in bringing his creation to life—when the creation opens his eyes and gazes back—as a “catastrophe.” Contrast this scene with the same moment of creation of intelligence noted in Genesis 1:32: “God saw all that he had made, and it was very good.” An enduring conversation in the philosophy of beauty asks whether beauty is more an innate property of the “thing” being considered or resides instead in the eye of the beholder. Conflations of beauty and goodness are also quite common in both popular culture and philosophical inquiry. In many ways, this entire novel explores the relationship between beauty, goodness, and perceptions. In the end, Victor’s characterization of his creature depends more on Victor himself than on the creature’s identity. Outward perceptions of beauty or the lack thereof influence how others understand the creature and whether they perceive his actions as “good” or “evil.” Imagine how the story would unfold if Victor were instead to have looked upon his creature at this very moment and felt that it “was good.” In the scene as given in the novel, Victor looks for himself in the creature’s eyes and finds someone else.
Stephani Etheridge Woodson.

50. Victor constantly equates “life” with animation. Does animacy provide life, or is that function served by the metaphysical soul purportedly found within active human bodies? Within Judeo-Christian-Muslim religions, it is the sacred soul placed within the human body during fetal development by a divine God that makes life different in humans from other animals. Nonhuman animals are treated differently from humans in Western society, whereas many non-Western societies do not make a striking difference from human to animal to plant (Astor-Aguilera 2010). For Western humans, the divine soul is what makes life sacrosanct, but nonhuman animal life is typically not as important. Is Victor playing God in his laboratory research, trying to infuse life or the spark of a soul within a human body composed of inactive tissue? When is the “soul” present in humans, if at all? Is soul matter inherent to human tissue at conception and therefore present in stem cells?
Miguel Astor-Aguilera.
by the wildest dreams. I thought I saw Elizabeth, in the bloom of health, walking in the streets of Ingolstadt. Delighted and surprised, I embraced her; but as I imprinted the first kiss on her lips, they became lurid with the hue of death; her features appeared to change, and I thought that I held the corpse of my dead mother in my arms; a shroud enveloped her form, and I saw the grave-worms crawling in the folds of the flannel. I started from my sleep with horror; a cold dew covered my forehead, my teeth chattered, and every limb became convulsed; when, by the dim and yellow light of the moon, as it forced its way through the window-shutters, I beheld the wretch—the miserable monster whom I had created. He held up the curtain of the bed; and his eyes, if eyes they may be called, were fixed on me. His jaws opened, and he muttered some inarticulate sounds, while a grin wrinkled his cheeks. He might have spoken, but I did not hear; one hand was stretched out, seemingly to detain me, but I escaped, and rushed down stairs. I took refuge in the court-yard belonging to the house which I inhabited; where I remained during the rest of the night, walking up and down in the greatest agitation, listening attentively, catching and fearing each sound as if it were to announce the approach of the demoniacal corpse to which I had so miserably given life.

Oh! no mortal could support the horror of that countenance. A mummy again endued with animation could not be so hideous as that wretch.\(^{51}\) I had gazed on him while unfinished; he was ugly then; but when those muscles and joints were rendered capable of motion, it became a thing such as even Dante could not have conceived.

\(^{51}\) Egyptian mummies were present in the British Museum since the mid-1750s, donated by private antiquity collectors. British attention to ancient Egypt broadened during Napoleon’s campaign of 1798–1801; his inclusion of scholars with his army was mocked in England as wartime propaganda, but the French documented and exported antiquities that were later transferred to London after their defeat. Probably more important than these events to the interpretation of Mary’s text, however, is the use of the purported curative powder “mummia” or “mummy,” which had been available throughout Europe since the twelfth century. Referred to as both medicine and pigment by early English writers including Edmund Spenser, William Shakespeare, and John Donne, mummia was either the bituminous substance used in mummmification to dry out body cavities after the removal of organs or the ground-up body parts of mummies themselves when this bituminous substance was in short supply. Mary’s reference to mummies here and later in Walton’s characterization of the texture and color of the creature’s hand (p. 183) may serve several purposes: (1) Ancient mummmification enabled the preserved body to be available for use by the spirit in the afterlife—another kind of reanimation of a dead body. (2) The creature’s mummy-like hand would have exhibited the characteristic darkened skin produced by the drying material, whereas the creature’s facial skin is elsewhere described as yellow, further highlighting his patchwork nature. (3) In light of the mutilation of mummmified bodies for questionable medicinal treatments, is it possible that Mary used the term mummy to enhance her ethical critique? Judith Guston.
I passed the night wretchedly. Sometimes my pulse beat so quickly and hardly, that I felt the palpitation of every artery; at others, I nearly sank to the ground through languor and extreme weakness. Mingled with this horror, I felt the bitterness of disappointment: dreams that had been my food and pleasant rest for so long a space, were now become a hell to me; and the change was so rapid, the overthrow so complete!

Morning, dismal and wet, at length dawned, and discovered to my sleepless and aching eyes the church of Ingolstadt, its white steeple and clock, which indicated the sixth hour. The porter opened the gates of the court, which had that night been my asylum, and I issued into the streets, pacing them with quick steps, as if I sought to avoid the wretch whom I feared every turning of the street would present to my view. I did not dare return to the apartment which I inhabited, but felt impelled to hurry on, although wetted by the rain, which poured from a black and comfortless sky.

I continued walking in this manner for some time, endeavouring, by bodily exercise, to ease the load that weighed upon my mind. I traversed the streets, without any clear conception of where I was, or what I was doing. My heart palpitated in the sickness of fear; and I hurried on with irregular steps, not daring to look about me:

Like one who, on a lonely road,
    Doth walk in fear and dread,
And, having once turn’d round, walks on,
    And turns no more his head;
Because he knows a frightful fiend
    Doth close behind him tread.53

Continuing thus, I came at length opposite to the inn at which the various diligences and carriages usually stopped. Here I paused, I knew not why; but I remained some minutes with my eyes fixed on a coach that was coming towards me from the other end of the street. As it drew nearer, I observed that it was the Swiss diligence: it stopped just where I was standing; and, on the door being opened, I perceived Henry Clerval, who, on seeing me, instantly sprung out. “My dear Frankenstein,” exclaimed he,

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52. It is understandable that Victor would experience feelings of fear and awe after realizing he successfully created life, especially given the strength and power of his creation. However, abandoning and then “avoid[ing] the wretch” because of this fear means he also avoids taking responsibility for his creature’s life and suffering. Victor’s avoidance does not lead to the protection of himself and his loved ones, and it intensifies the creature’s anguish and destructive behavior. Nicole Piemonte.

53. Coleridge’s “Ancient Mariner.” [Mary’s note]
“how glad I am to see you! how fortunate that you should be here at the very moment of my alighting!”

Nothing could equal my delight on seeing Clerval; his presence brought back to my thoughts my father, Elizabeth, and all those scenes of home so dear to my recollection. I grasped his hand, and in a moment forgot my horror and misfortune; I felt suddenly, and for the first time during many months, calm and serene joy. I welcomed my friend, therefore, in the most cordial manner, and we walked towards my college. Clerval continued talking for some time about our mutual friends, and his own good fortune in being permitted to come to Ingolstadt. “You may easily believe,” said he, “how great was the difficulty to persuade my father that it was not absolutely necessary for a merchant not to understand anything except book-keeping; and, indeed, I believe I left him incredulous to the last, for his constant answer to my unwearied entreaties was the same as that of the Dutch school-master in the Vicar of Wakefield: ‘I have ten thousand florins a year without Greek, I eat heartily without Greek.’ But his affection for me at length overcame his dislike of learning, and he has permitted me to undertake a voyage of discovery to the land of knowledge.”

“It gives me the greatest delight to see you; but tell me how you left my father, brothers, and Elizabeth.”

“Very well, and very happy, only a little uneasy that they hear from you so seldom. By the bye, I mean to lecture you a little upon their account myself.—But, my dear Frankenstein,” continued he, stopping short, and gazing full in my face, “I did not before remark how very ill you appear; so thin and pale; you look as if you had been watching for several nights.”

“You have guessed right; I have lately been so deeply engaged in one occupation, that I have not allowed myself sufficient rest, as you see: but I hope, I sincerely hope, that all these employments are now at an end, and that I am at length free.”

I trembled excessively; I could not endure to think of, and far less to allude to the occurrences of the preceding night. I walked with a quick pace, and we soon arrived at my college. I then reflected, and the thought made me shiver, that the creature whom I had left in my apartment might still be there, alive, and walking about. I dreaded to behold this monster; but I feared still more that Henry should see him. Entreating him therefore to remain a few minutes at the bottom of the stairs, I darted up towards my own room. My hand was already on the lock of the door before I recollected myself. I then paused; and a cold shivering came over me. I threw the door forcibly open, as children are accustomed to do when they expect a spectre to stand in waiting for them on the other side; but nothing appeared. I
stepped fearfully in: the apartment was empty; and my bed-room was also freed from its hideous guest. I could hardly believe that so great a good-fortune could have befallen me; but when I became assured that my enemy had indeed fled, I clapped my hands for joy, and ran down to Clerval.

We ascended into my room, and the servant presently brought breakfast; but I was unable to contain myself. It was not joy only that possessed me; I felt my flesh tingle with excess of sensitiveness, and my pulse beat rapidly. I was unable to remain for a single instant in the same place; I jumped over the chairs, clapped my hands, and laughed aloud. Clerval at first attributed my unusual spirits to joy on his arrival; but when he observed me more attentively, he saw a wildness in my eyes for which he could not account; and my loud, unrestrained, heartless laughter, frightened and astonished him.

“My dear Victor,” cried he, “what, for God’s sake, is the matter? Do not laugh in that manner. How ill you are! What is the cause of all this?”

“Do not ask me,” cried I, putting my hands before my eyes, for I thought I saw the dreaded spectre glide into the room; “he can tell.—Oh, save me! save me!” I imagined that the monster seized me; I struggled furiously, and fell down in a fit.

Poor Clerval! what must have been his feelings? A meeting, which he anticipated with such joy, so strangely turned to bitterness. But I was not the witness of his grief; for I was lifeless, and did not recover my senses for a long, long time.

This was the commencement of a nervous fever, which confined me for several months. During all that time Henry was my only nurse. I afterwards learned that, knowing my father’s advanced age, and unfitness for so long a journey, and how wretched my sickness would make Elizabeth, he spared them this grief by concealing the extent of my disorder. He knew that I could not have a more kind and attentive nurse than himself; and, firm in the hope he felt of my recovery, he did not doubt that, instead of doing harm, he performed the kindest action that he could towards them.

But I was in reality very ill; and surely nothing but the unbounded and unremitting attentions of my friend could have restored me to life. The form of the monster on whom I had bestowed existence was for ever before my eyes, and I raved incessantly concerning him. Doubtless my words surprised Henry: he at first believed them to be the wanderings of my disturbed imagination; but the pertinacity with which I continually recurred to the same subject persuaded him that my disorder indeed owed its origin to some uncommon and terrible event.
By very slow degrees, and with frequent relapses, that alarmed and grieved my friend, I recovered. I remember the first time I became capable of observing outward objects with any kind of pleasure, I perceived that the fallen leaves had disappeared, and that the young buds were shooting forth from the trees that shaded my window. It was a divine spring; and the season contributed greatly to my convalescence. I felt also sentiments of joy and affection revive in my bosom; my gloom disappeared, and in a short time I became as cheerful as before I was attacked by the fatal passion.

“Dearest Clerval,” exclaimed I, “how kind, how very good you are to me. This whole winter, instead of being spent in study, as you promised yourself, has been consumed in my sick room. How shall I ever repay you? I feel the greatest remorse for the disappointment of which I have been the occasion; but you will forgive me.”

“You will repay me entirely, if you do not discompose yourself, but get well as fast as you can; and since you appear in such good spirits, I may speak to you on one subject, may I not?”

I trembled. One subject! what could it be? Could he allude to an object on whom I dared not even think?

“Compose yourself,” said Clerval, who observed my change of colour, “I will not mention it, if it agitates you; but your father and cousin would be very happy if they received a letter from you in your own hand-writing. They hardly know how ill you have been, and are uneasy at your long silence.”

“Is that all? my dear Henry. How could you suppose that my first thought would not fly towards those dear, dear friends whom I love, and who are so deserving of my love.”

“If this is your present temper, my friend, you will perhaps be glad to see a letter that has been lying here some days for you: it is from your cousin, I believe.”

CHAPTER V.

Clerval then put the following letter into my hands.

*To V. FRANKENSTEIN.*

*MY DEAR COUSIN,*

“I cannot describe to you the uneasiness we have all felt concerning your health. We cannot help imagining that your friend Clerval conceals the extent of your disorder: for it is now several months since we have seen your hand-writing; and all this time you have been obliged to dictate your