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ESSAY

Mary Shelley's *Frankenstein* and the Fate of Modern Scientific Psychology

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We note first of all that the full title of Mary Shelley's book is *Frankenstein or The Modern Prometheus*. If we take this title as a cryptic introduction to its subject matter, we come to understand the novel as exploring the consequences of an Enlightenment project that sought to replace the classical Greek Prometheus, who was the founder of Greek religion, with a modern surrogate representing modern industrial techno-science. The ancient Greek Prometheus had sought to liberate his people by separating mortals from immortals and thereafter reuniting them by means of a festive, religious ritual. By contrast, the modern pseudo-Prometheus promised to liberate humanity by effacing the division between heaven and earth and by seeking to make the natural scientific universe the ultimate object of all cultural activity. Modern human science, including academic and scientific psychology, should be counted among the offspring of this modern and progressive Prometheus. Mary Shelley's masterpiece describes the dangers inherent in blindly following this modern techno-scientific Prometheus, thereby indirectly evoking the possibility of building a different psychology and human science that remains in close alliance with the antique Prometheus.

ABOUT THE GREEK PROMETHEUS AND ITS ENLIGHTENMENT PROXY

In the eighth century, Greek poet Hesiod described Prometheus as a Titan deity who lived peaceably among the Olympian god on Mount Olympus, where he befriended a primitive humanity that under his leadership emancipated to become the human race that we recognize as such today.

The original Promethean myth, as we find it detailed in the *Theogony*, describes early mankind as living amidst the Olympian gods without any conscious awareness of their own mortal, or their neighbor's immortal nature. The Greek dramaturge Aeschylus (1961; verses 444–458) wrote of them that had eyes and ears but were unable to truly see or understand what they saw or heard.

They could hear sounds, distinguish colors and perceive shapes, but yet remained unable to make any sense of their world until Prometheus led them out of their confusion. They could not distinguish the seasons and were unable to write, to calculate, or to construct useful or beautiful things. They could not build houses or construct villages or cities and hid in caves to protect themselves from the inclemency of the weather. They subsisted in this unconscious and miserable condition until Prometheus took pity on them and undertook to educate and emancipate them. To that purpose he separated them from the immortal gods and led them far away from Mount Olympus where they settled and began to create a distinctly human way of life.

The myth teaches that such a human way of life can be developed only by a people willing to tolerate being physically separated from their gods and, by extension, by children willing to accept some physical distance from their parents. As such, it offers a perspective on human development and education that is all at once religious and secular, sacred and familial at the same time.

To encourage humanization, Prometheus drew humanity away from their complete identification and physical confusion with the gods of Mount Olympus, in quite the same way that the Freudian myth has the family assist the growing child in resisting total identification with, and accepting physical separation from, the mother. In both myths, a primitive humanity is encouraged to replace primitive physical clinging and nursing with playful and symbolic social interactions.

The child becomes emancipated in learning to smile, to greet, to point and to speak, in the same way that the primitive humanity of the Prometheus myth came to accept the physical distance from Mount Olympus and to replace physical clinging with symbolic religious interaction. Just as the developing begins to listen to and to tell stories or begins to draw and to sing, the primitive humanity of the Prometheus myth began to develop religious rituals, build temples and learn to say prayers. In both cases the painful distance from the warm confusion of origins is overcome by cultural labor that builds a human world.

These cultural practices that transform a chaotic universe into a human world have the curious quality of both maintaining and overcoming the distance imposed by birth, emancipation and education. These practices fill the gap between heaven and earth or between parent and child, but they also maintain the necessary distance from an origin that must be gratefully acknowledged but also kept at a respectful distance. We thereby come to understand humanization as both a filling of the gap created by birth and emancipation, but also as cultural overcoming of difference and distance that separated mortals from immortals, heaven from earth and one generation from succeeding generations.

The Greek Hesiodic creation myth teaches that the privilege of becoming human demands the price of weaning, understood here as the willing sacrifice of a blissful, original state of confusion between heaven and earth and between self and other. "To be *weaned*" means to have accepted living a life that will remain forever at some concrete and unsurpassable distance from the beckoning paradise of absolute unity of self and other, of God and mankind.

It is important to underline here that in both the Promethean and the modern, Freudian myth of humanization, our separation from the gods and from the maternal body is understood as the unavoidable precondition for inhabiting a human world. *Weaning* means literally and etymologically, "to become capable of dwelling or *wohnen*;" it means entering into a world where mortal human beings must live separate from their immortal gods and where children must learn to establish a viable life at some physical and symbolic distance from their parents.

The classical Prometheus makes his appearance, not merely as the creator of this distance, but also as the founder of a symbolic order that overcomes a painful distance and rejoins mortals to their immortal gods, children to their parents, and present generations to the generation that have preceded and that will succeed them.

As we show later in greater detail, it is not the ancient, classic Prometheus who inspires the protagonist of Mary Shelley's novel, but a very different modern *Enlightenment Prometheus* who inspired Victor Frankenstein to defy and ignore the distance and difference between heaven and earth and to pursue his quest for the godlike powers of creation and destruction. Quite contrary to the classical Prometheus, who founded Greek religion and build the first altar and offered the first sacrifice, all in an effort to bring mortal and immortals together into a cultural configuration that formed the basis of Greek civilization, the modern, Enlightenment Prometheus proposed to ignore and thereby destroy that distance and return mankind back to the times when it had no awareness of being different from the gods.

Victor Frankenstein, the modern Prometheus, seeks to return mankind back to a time when the heavens were as yet not separate from the earth and the unborn child had as yet not left the confines of the maternal body. Victor's ultimate project is that of establishing an equality that will erode all difference so that it will no longer be possible to distinguish between heaven and earth, mortals and immortals, parents and children, men and women and, ultimately, between self and other.

Where the ancient Prometheus had encouraged mankind to build a viable human world at some distance from that of the gods, the modern Prometheus wanted to destroy that distance and thereby make mortals the equals of immortals and heaven the habitat of mankind. We note here in passing that this modern Prometheus already made his appearance in the biblical myth of Paradise, where he encouraged Adam and Eve to magically erase the difference and distance that separated them from their Creator. The eating of the forbidden fruit can be read as a symbol of the total appropriation of the heavens by the earth and as a kind of primordial, metabolic violence that destroys all difference and distance between one body or one world and another. As such it serves as a primordial symbol for a crime that destroys the very source from which springs human civilization.

Much like the progressive, Enlightenment Prometheus of Mary Shelley's tale, the serpent of the myth of Genesis counsels humanity to trespass on the distance and difference that separates the heavens from the earth, mankind from God and the tree in the midst of the Garden from those that encircle it.

Where the ancient Prometheus had sought to transform men and women, mortals and immortals, parents and children into loving, culturally interacting *couples*, the modern Prometheus, personified by Frankenstein, proposed to suppress all difference and distance that had held all such couples together and made them part of a culturally interactive cosmos.

According to the classic Prometheus, mankind had been wounded by an original separation, occasioned by birth and made manifest in all forms of human mortality. The only way to heal that original wound would be to transform it into a work of art or religion or some other cultural work that would contribute to human life in the city and as such would become a building block of a larger civilization. The curse of the wound would thereby be transformed into the blessing of civilization. It is in this sense that we should understand Prometheus as the inventor of the altar and the sacrificial ritual and as the father of Greek religion.

To place Mary Shelley's novel in its proper historical context would be to situate it in the transition period between the time when the classical Prometheus' understanding of human emancipation and human civilization still held sway, and the succeeding period of the Enlightenment

when modernity rejected the ancient Prometheus and began to worship a very different, modern version of the ancient hero as the patron saint of natural scientific and industrial progress.

Mary Shelley grew up in a progressive milieu during the heady period following the French Revolution in which rationalism, materialism and utilitarianism fought side by side for the establishment of a new social order. Mary Shelley's mother has been described as England's first radical feminist and her father as one of the most progressive political pamphleteer and journalists of his time.

It is not difficult to discern the profound imprint of this social and political milieu on Mary Shelley's future career as a thinker and a writer. We are in danger of misreading and misunderstanding her work if we attempt to approach it solely in terms of literary trends and cultural-historical fashions.

Neither should we understand it as an exercise in rational philosophy, sociology or even scientific psychology. The most rewarding approach to the novel appears to be to understand it as a literary attempt to reveal the character of the Enlightenment through the visionary power of myth.

While natural science and technology invite us to observe and conquer a natural scientific universe, myth invites us to enter and inhabit a circumscribed, cultural and historical domain that offers us a standpoint from which to explore the human condition. Myth invites us to intimately probe and experience distinctive, changing relationships between heaven and earth, man and woman, friends and neighbors, self and other. It compels us to think about love, friendship and neighborliness in ways that forever escape objective human science.

Natural science and the workaday world both bring us face to face with an anonymous, natural order *that ignores our presence* and that cannot recognize our needs and desires. In that confrontation we remain forever strangers and outsiders to a reality that we may learn to act upon, or even to master, but that we can never learn to love or to inhabit.

ABOUT ROBERT WALTON AND VICTOR FRANKENSTEIN'S SCIENTIFIC PROJECTS

If we examine the broad structure of Shelley's novel, we notice first of all that Frankenstein's story reaches us via the correspondence between Robert Walton and his sister Margaret. The novel opens with Robert's letter from Saint Petersburg, Russia, addressed to his sister in London, in which he describes his busy preparations for a forthcoming scientific exploration to the North Pole. The chief object of that exploration appears to be one of finding a navigable channel across the North Pole that would remain open throughout the year.

Robert had recently inherited a sum of money from a rich relative and he had decided to use it to finance a scientific expedition that would benefit international commerce and international relations and that, at the same time, might earn him a place in history.

The story of Victor and of his disastrous attempt to impart biological life to an unwanted monster reaches us enfolded within a larger social and familial narrative detailed in a correspondence between a brother and a sister. The novel thus describes not one, but two very distinct forms of the scientific enterprise and invites the reader to place these side by side and compare one with the other.

Victor's projects appears to serve no other purpose than that of effacing the difference and the distance between heaven and earth; the other adopts the less metaphysical goal of improving traffic and commerce between two hitherto isolated regions of the world.

Taken as a whole, the novel presents the reader with two starkly contrasting portrayals of scientists and of two very different ways of understanding human labor in general and science and technology in particular.

We noted that Robert's scientific ambition remains anchored in a larger cultural world that continues to make place for the arts and the humanities. Robert dreams of obtaining a "niche in the temple where the names of Homer and Shakespeare are consecrated" (1992; p. 16), and Victor rejects as useless and frivolous any aspect of human culture that does not produce scientific knowledge and that does not translate into material ascendancy over a natural universe.

Robert starts and finishes his scientific exploration within a larger social and historical world that includes the arts and the humanities. Victor starts from a much narrower base of medicine and biology and then limits his horizon further by neglecting his family and friends and by abandoning all cultural and social activity that falls outside the narrow scope of his natural scientific obsessions.

Shelley treats thus not of one, but of two separate and distinct types of scientific explorations, one to discover new passageways through unexplored wastelands, and the other to restore life to an assembly of dead body parts. The first of these explorations remains embedded in a social order and seeks to create a more expansive and prosperous economic and cultural life. The second has the allure of an idiosyncratic and megalomaniacal obsession that wants to undo rather than cultivate the distance and the difference between heaven and earth, man and woman, parent and child, host and guest, self and other.

Robert's scientific quest acknowledges the scope and the limit of natural science and technology and he assigns it to a distinct time and place within a larger cultural landscape, while Victor refuses to assign any limits to his scientific enterprise and even goes so far as failing to recognize any cultural institution other than that of natural science and technology.

Where Robert understands civilization as conforming to the fundamental, rhythmic pattern of conversation, which is one of question and answer, of listening and speaking, of obeying and commanding, Victor sees it as a terrain of urgent and mortal combat in which there is no time for an exchange of letters or for maintaining familial or amicable relationships.

Victor does not attempt to build a better human world but rather seeks to return to an easier, more infantile world of blurred distinctions between heaven and earth, mother and child, or self and other. While Robert builds a human world by transforming difference and distance into works of culture that bridge the gap between different worlds, Victor is ready to destroy his cultural world in exchange for the radical material unity of a natural universe. Victor is ready to destroy his own world and his own humanity in the pursuit of a natural and universal world in which there is no place for a self or another, for a brother or a sister, for a friend or a neighbor, or even for an ancestor or a God.

ABOUT THE EDUCATION OF VICTOR AND ROBERT

One of the curious aspects of Victor's education is his own utter disappointment with it. At the age of 13 he discovered the works of Cornelius Agrippa, and later those of Paracelsus and Albertus Magnus. With these preenlightenment, natural philosophers he had puzzled over such mysteries as "the philosopher's stone," "the elixir of life" and what he called "the physical

secrets of the world.” His enchantment with these authors came to an abrupt end however, when at the age of 17, he entered the progressive University of Ingoldstadt, in Bavaria. There his teachers and champions of the Enlightenment told him:

You have burdened your memory with exploded systems and useless names. Good God! In what desert land have you lived, where no one was kind enough to inform you that these fancies, which you have so greedily imbibed, are a thousand years old and as musty as they are ancient? I little expected in this enlightened and scientific age, to find a disciple of Albertus Magnus and Paracelsus. My dear sir, you must begin your studies entirely anew. (Shelley, 1992, p. 47)

Victor seems to have been completely convinced by such lectures and thereafter completely severed his relationship with his ancient mentors and concentrated instead on learning what he could about the new sciences of chemistry, physics and anatomy. It is in this way that the novel shows us how Victor reenacts in his own, personal way the prevalent Enlightenment tendency to sharply criticize and condemn past ways of acting and thinking instead of building bridges between the old and the new.

We therefore do not see Victor making the slightest effort to integrate and find a place for his old enthusiasms within the context of the new. We recognize in Victor’s total rejection of his former teachers the radical Enlightenment tendency to consign the past to the “Dark Ages,” to abandon the study of Greek, to curtail that of Latin and turn away from the rich heritage of Greek, Roman, Jewish, and Christian ways of conceiving and understanding a human and divine world. All this served but one purpose, namely that of establishing the absolute hegemony of a modern, rational and scientific way of life.

This attitude becomes particularly clear when we compare the predominant Enlightenment attitude toward the cultural past with that of the Renaissance when a great cultural effort was made to resurrect from the past an entirely, nearly forgotten antique civilization.

Renaissance education enormously enriched Medieval Christianity while the Enlightenment, with its cultural myopia, its dogmatism and perverse scientism, deprived countless generations of access to their rich cultural heritage.

The great complaint about ancient learning and the newfound conviction of modernity’s absolute superiority over times past places Mary Shelley’s *Frankenstein* in close relationship to Goethe’s *Faust*, written just a few years earlier. In both works, we encounter the same violent rejection of the past that we hear from Victor’s professors at the University of Ingoldstadt. It is perhaps this same contempt and dismissal of the past that would take concrete and murderous form during the time of the French Revolution.

We think here, in particular, about the opening speech of *Faust*, where the protagonist expresses his contempt for all he learned in the course of his preenlightenment education:

I’ve studied now Philosophy And Jurisprudence, Medicine—And even, alas! Theology! From end to end, with labor keen.
And here, poor fool! With all my lore
I stand, no wiser than before:
I’m Magister, even, Doctor
But here I stand as I stood before:
The same ignorant fool of the days of yore (Goethe, 1940, p. 16).

The dissatisfied Faust complains that a dog would not put up with what he had to endure as a student of completely useless and nonsensical branches of knowledge. But where Victor decided to simply abandon what he had learned and to place all his hope in the pursuit of the new techno-science, Faust decided, more dramatically, to bind himself in a pact with the devil. He thereby hoped to obtain the absolute power over a natural and social world that he had evidently expected his academic studies to secure for him.

What is striking in these two literary works that were written at about the same time, is that their protagonists took it completely for granted that their academic quest for learning was in fact but a quest for power over a natural universe, and that it constituted no longer a serious attempt to better understand a human and divine world.

The vainglorious temper of the time is best expressed by one of Victor's science professors who ridicules the achievements of the past while praising modern natural science for having:

penetrated into the inner recesses of nature and shown how she works in her hiding-places. They ascend into the heavens; they have discovered how the blood circulates, and the nature of the air we breathe. They have acquired new and almost unlimited powers: they can command the thunder of heaven, mimic the earthquake, and even mock the invisible world with its own shadows. (Shelley, 1992, p. 49)

What is remarkable about this outburst is not so much the romantically exaggerated powers of the natural sciences, but the very proposition that these new sciences and their novel outlook on the world should come to *replace* all other cultural practices and reign as absolute monarchs over every aspect of our cultural and intellectual life.

The Enlightenment derailed in revolution and cultural destruction, not merely by the fact that it introduced new, scientific and rationalistic ways of posing and understanding human problems. It wrought this destruction by insisting that these obviously fruitful ways of understanding the natural and physical world should reign supreme and replace all other modes of cultural and religious thought. Natural science thereby became transformed into a *scientism* that proclaimed, in the mode of a new, revealed religion, that techno-science should henceforth be the unique and ultimate way to pose and answer any and all human problems.

The author of *Frankenstein* made it clear that it was not natural science and technology as such that led Victor and the poor monster to their doom, but only their uncritical and fanatical pursuit. Victor himself came to this understanding when he recalled:

Winter, spring, and summer passed away during my labors; I did not watch the blossom or the expanding leaves-sights that always yielded me supreme delight-so deeply I was engrossed in my occupation. The leaves of that year had withered before my work drew to a close... I appeared rather one doomed by slavery to toil in the mines, or any other unwholesome trade than an artist occupied by his favorite employment. (Shelley, 1992; p.57)

We come to think of Victor's life as lacking the essential rhythm of night and day, of work and celebration, of coming and going. Without that rhythm human life inevitably descends into a chaos where nothing stand out from what surrounds and supports it. Without that rhythm and that alternation, which forms the essential characteristic of a fruitful conversation, the human world cannot maintain itself and becomes transformed into a biblical *tohubohu* or in an anonymous natural scientific universe.

All music is destroyed when it loses its rhythm and all joy is extinguished in a world without ebb and a flow, workdays and feast days, heaven and earth, humanity and divinity, self and other. Victor later came to regret his singular and obsessive pursuit of modern techno-science:

When 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. (Shelley, 1992, p. 56)

Victor's madness arose from his naive and messianic belief in natural scientific and his subsequent failure to remain grounded in a rhythmic, inhabitable, familial and neighborly world. Like Faust, his quest for knowledge ceased to serve the wider purpose of drawing heaven and earth, man and woman, neighbor and neighbor, and self and other closer together. This fundamental quest assumed instead the malign form of a quest for power over a world that he had long since ceased to truly love, or even to inhabit. Victor achieved thereby a pyrrhic victory that permitted him to impart biological life to dead lumps of flesh, but that at the same time banished him from a human and divine world that alone could ever give meaning to his actions.

Robert Walton's quest for scientific knowledge appears quite differently construed. He did not embark on it as a solitary quest for personal power but as part of a larger communal enterprise of building and maintaining a human world founded on ancient cultural foundations.

Robert wants to follow in the footsteps of the great explorers of the past who risked their personal comfort and endangered their lives in an effort to enlarge the cultural horizons of a world they loved and cared for. His scientific quest is therefore not rooted in his disappointment and rejection of the past. Quite the contrary, he finds his inspiration in historical and mythical figures such as Jason of the Argonauts and Christopher Columbus of the Santa Maria. In a letter to his sister he reflects on the source of his ambition to undertake his North Pole expedition: "I imagined that I also might obtain a niche in the temple where the names of Homer and Shakespeare are consecrated" (Shelley, 1992, p. 16).

Robert's journey grows out of a cohesive social world of familial affection, friendship and love of adventure. He does not reject poetry, myth or religious belief as a precondition for engaging in a scientific or technological adventure. Even as an explorer of the North Pole he remains linked to the wider world inhabited by family, friends and neighbors. He thinks of his scientific exploration as allied in myriad ways to myth and poetry:

I try in vain to be persuaded that the pole is the seat of frost and desolation; it ever presents itself to my imagination as the region of beauty and delight. There, Margaret, the sun is forever visible, its broad disk just skirting the horizon, and diffusing a perpetual splendor. (Shelley, 1992, p. 15)

The exchange of letters between brother and sister, although irregular and subject to the hazards of distant travel, partakes itself of the rhythm of family life, of conversation, of friendship and neighborly relations; it takes the form of coming and going, of hospitable visits and revealing conversations. Far from the neurotic and narcissistic monotony of Victor's quest, Robert remains true to the rhymed and rhythmic relationships that bring coherence and happiness to human existence. It is in this way also that Robert's scientific exploits and workaday realities remain firmly rooted, not merely in workaday realities, but also the larger and more fundamental domain of festive encounters and mutual revelations.

It is for this reason that Robert's intellectual journey is not just one of progress, but comes full circle and is marked by a recognizable beginning, middle and end. To inhabit this circular world it does not suffice to simply *leave home* and to *make progress* on a path of scientific conquest. One must also be able to *come home* and to remain faithful to the larger world of family, friends and neighbors. One must not just be able to persevere in arduous struggles, overcome obstacles and reach foreign shores, but one must also find the way back home, to show the treasures and to tell the story and to link the homeland to the foreign shore.

While Robert's scientific quest comes full circle, Victor's pursuit of victory and power transform itself into a solitary and *progressive* pursuit that accepts neither pause nor change in direction and assumes the form of an endless and pointless pursuit. Where Robert's quest remains inspired by personal relations, by the back and forth of conversations, by an exchange of letters and visits, Victor's quest for power never stops or turns, or ever deviates from the original intent of total victory, even if that victory has become meaningless because it cannot reconnect to a beginning. His journey cannot come full circle because it fails to encounter self and other. The straight line of power and progress that marks the path of techno-science marks a journey that honors no thresholds, accepts nor grants hospitality, nor makes visits or makes place for encounters. Unrelieved by the *other world* of festivity and miraculous encounters, the straight path of techno-science *stops at nothing* and for that reason remains blind, deaf and dumb and out of touch with a human and divine world.

ABOUT THE LONELINESS OF THE TWO SCIENTISTS

Both the biological experiments engaged in by Frankenstein and the polar expedition undertaken by Robert Walton demand great personal sacrifice. Both pioneers are required to forego for a time the warmth of the hearth and the comfort of family and friends. In a letter from Russia, Robert pours his heart out to his sister: "I have no friend; when I am glowing with the enthusiasm of success there will be none to participate my joy; if I am assailed by disappointment, no one will endeavor to sustain me in dejection" (Shelley, 1992, p. 19).

Frankenstein and the creature he has brought to life are also condemned to loneliness, but theirs differs from that of Robert Walton in that it is not self-imposed and does not present itself as a burden they must bear in the interest of a greater good. Rather, they both experience it as a curse imposed on them and their sad enterprise by some power that is beyond their control. Robert understands his scientific enterprise as work that cannot be accomplished without personal sacrifice. Yet he never forgets that that his work forms part of a larger cultural world for which he is willing to brave loneliness, bitter cold and physical danger. He accepts those hardships the way a donor accepts the personal loss implied in offering a gift. Victor, by contrast, deprives himself of the company of others in a quest that stands in the service of a combative ego-centered philosophy that wants to conquer and master, rather than *inhabit* a human world. By contrast, Robert's explorations serves the very different purpose of enriching an inhabitable, historical and communal world.

This crucial difference between the two scientific enterprises becomes clear when Robert's ship gets caught in the polar ice and his sailors begins to fear for their life. In a meeting with Robert the sailors entreat him to abort his scientific expedition and to sail back to England. Robert describes the incident in a letter to his sister: "[The sailors] insisted that I should engage

with a solemn promise that if the vessel should be freed [from the ice] I would instantly direct my course southwards” (Shelley, 1992, p. 217).

Robert had dreamed of scientific conquests and glory since early childhood and he would have been willing to sacrifice his own life in the pursuit of that great mission. But he clearly felt that his sailors should not be coerced to follow him in such a sacrifice. About himself he wrote: “I would rather die than return shamefully to England with my mission unfulfilled.”

Yet, in spite of his own disappointment he decides to cease and desist and to defer to others who clearly cannot be coerced to follow him on this path. Robert sacrifices his dream of making a great scientific contribution to his age and when his ship is finally freed from the encircling ice he sets his course in the direction of England. In the same letter Robert describes that poignant scene “when the ship broke loose and I gave orders to begin the homeward journey, a shout of tumultuous joy broke from the crew.”

Frankenstein, who had been slumbering on board the ship, awoke from the tumult and asked Robert what had been going on. Robert then told him of his decision and then added: “I cannot withstand the sailor’s demand. I cannot lead them unwillingly to danger and must return” (Shelley, 1992, p. 218).

Frankenstein then spoke the crucial line that captures the essential difference between their two missions: “You may do so if you will, but I will not. You may give up your purpose, but mine is assigned to me by Heaven and I dare not oppose it” (Shelley, 1992, p. 219).

Robert’s quest is that of a free man who must decide for himself between conflicting ethical demands and duties. Frankenstein has lost that freedom because he has abandoned the lived world of family, friends, and neighbors in his vain effort to colonize and inhabit an abstract, anonymous, natural scientific universe. He thereby has lost access to the only world in which it is possible to make rational and ethical decisions.

Victor has become obsessed and bewitched; he has become a mere instrument in the hands of a moribund techno-science that seeks dominion over a universe and that is willing to destroy both heaven and earth to gain it. Victor’s science has metamorphosed into a demonic practice and a perverse belief system called scientism.

By contrast, Robert’s scientific quest remains attached to a larger cultural context to which it remains subservient. This allows Robert not only to embark on a scientific experiment, but also to abandon it in the face of other, more pressing or important human concerns. He is able to make full circle, where Victor remains stuck in a false narrative of infinite progress that ultimately takes the form of a relentless and murderous, mutual pursuit of a monster and his maker.

THE MONSTER IN HIS ROLE AS A NATURAL SCIENTIFIC OBSERVER

Mary Shelley presents us with a tragic-comical portrait of the monster in his hiding place in the Swiss Alps where he lives in a hidden part of a mountain cottage inhabited by a refuge family from France. From his hiding place, the monster is able to overhear and observe the unsuspecting French family without him being seen or heard. It is from this hiding place that the monster learns all he knows about the human world. Although the monster spoke with no one, he nevertheless came to understand the French language and even learned to decipher the written word from books left behind by careless readers. He thereby acquired what we may call a social

scientist's knowledge about European culture and history that included the writings of Plutarch, Goethe and Milton.

It is important to compare the monster's position in his hiding place and his curious one-sided contact with the human world to that of the modern human scientist who, from his isolated position in the laboratory or his academic ivory tower observes a human world from which he remains personally detached. The only difference between the crawl space of the monster and the laboratory space of the human scientist is in the fact that of the isolation these impose, one is forced upon the poor monster and the other actively sought after by the human scientist.

Both the monster and the human scientist acquire their knowledge and experience of the human condition, not at first hand, that is, not by actively engaging in two-way human relationships but by objective observation from a hiding place and from the position of an unseen seer.

We cannot escape the impression that the description of the monster in his hiding place should be read both as an essential part of Shelley's narrative, and as a devastating critique of the emerging idea of a human science based on observations made from an extra-mundane hiding place. What the monster desperately seeks and the scientist desperately avoids is an inhabited standpoint from which to experience a human world.

There is no doubt that Mary Shelley shared with her contemporaries a vivid admiration for the great advances made by the natural sciences of her times. She was no doubt aware that these sciences and the technologies that grew out of an anonymous and, as it were, *masked* confrontation with the natural world. The practitioners of these sciences all accepted the importance of objective and unprejudiced observations of natural phenomena and they were careful to separate their private life and personal wishes from their natural scientific practices.

The first rule to be obeyed by an objective, natural scientific observer is that of practicing both anonymity and invisibility. To enter that world the observer must alienate himself from his personal life and distance himself, for the time being, from all personal qualities such as those of age, sex, nationality or even those of language or historical circumstances. The scientific observer takes distance from his personal and individual life while adopting Descartes' famous slogan of "*Larvatus prodeo*" (masked I advance) (Maritain, 1932, p. 302). He is therefore required to observe from his hiding place a world to which he claims to have no particular attachment and that does not recognize either his age or his sex or even his name or nationality. His essential task is that of observing an alien world without being seen, heard or understood.

Such a strategy of observation is common to both hunting and warfare and we therefore cannot fully understand scientific practices without reference to either. Natural science reveals itself here as a practice of combat and in that sense it shows itself as radically at variance with the practices of the arts, with those of religion and of the humanities.

The reader of the novel cannot help but pity the monster, understood as an unfortunate victim of a derailed natural science. We pity him as he crouches in a corner of his hiding place, deprived as he is from a mere exchange of glances, from even a casual greeting or a chance remark. From a standpoint of common sense it would appear to be sheer folly to proclaim his lamentable and isolated position as an ideal platform from which to study and observe the human condition.

Objective, anonymous observations may give us an advantage in combat with an enemy or in the hunter's pursuit of his quarry, but it clearly cannot take the place of peaceably interacting with one's neighbors and dealing fairly and openly with our friends. Objective and anonymous observations and the pursuit of enemies become possible for those already inhabiting a human

world and able to count on the love and support of family and friends. Love and friendship are the preconditions for imagining an abstract universe and for making scientific or strategic observations. Only someone loved and cared for finds access to the battlefield, the hunt and the realm of the natural science.

On the other hand, no amount of intelligent and industrious observation, or brilliant theoretical speculation can ever grant anyone access to a human world. Only mutual hospitality and loving, reciprocal relations enable us to enter and to inhabit a human world and it is only from an inhabited perspective that we gain psychological, philosophical or even scientific insights into the human heart and soul.

The monster is quite aware of this and he curses his maker for having brought him into the world as a mere exercise in material conquest and physical power and without giving any thought to protect and to care for him. The human spirit that inhabits the monster cannot be satisfied with a merely brute, objective and physical existence, in the same way that he cannot find fulfillment in a merely objective, natural or universal world. Nor can such a brute physical existence or such an uninhabitable universe ever be made viable by means of objective observations or merely clever or erudite social science theories.

To place Victor's intellectual crises and his subsequent monomaniacal pursuit of the natural sciences into its proper perspective we need to recall an experience of his early adolescence when, during a violent thunderstorm, he witnessed the total destruction of a sturdy oak tree in front of his house:

I remained, while the storm lasted, watching its progress with curiosity and delight. As I stood at the door, on a sudden I beheld a stream of fire issue from an old and beautiful oak, which stood about twenty yards from our house; and as soon as the dazzling light vanished, the oak had disappeared, and nothing remained but a blasted stump. When we visited it the next morning, we found the tree shattered in a singular manner. It was not splintered by the shock, but entirely reduced to thin ribbons of wood. I never beheld anything so utterly destroyed. (Shelley, 1992, p. 42)

Victor found himself at an impressionable age confronted with what he experience as a violent, purposeless, natural world that erased for him the image of an orderly, benevolent nature. The young Victor not merely witnessed this violent and incoherent world, but came to see himself as forming an inextricable part of it. He later would describe how he came to see himself in the very image of that shattered tree:

But I am a blasted tree; the bolt has entered my soul; and I felt then that I should survive to exhibit what I shall soon cease to be—a miserable spectacle of wrecked humanity, pitiable to others, and intolerable to myself. (Shelley, 1992; p. 165)

We are probably right to discern an intrinsic link between the destructive bolts of lightning that shattered the tree and the electric shock that Victor presumably used to animate his loveless creation. In both instances Victor stood confronted, not by a human and divine world, but by a modern, natural scientific universe, where anonymous life and anonymous death intermingled without grace or love and therefore without rhyme or reason. Like the poor monster, he stands before a world that can be objectified, counted and measured and even elegantly discussed in academic discourse, but that for all that, can neither be truly loved nor inhabited.

ABOUT THE CREATION OF A HUMAN WORLD AND THE MANUFACTURE OF MONSTERS

To better understand modernity and the story of Victor's attempt to turn the mystery of creation into a techno-scientific feat, we must read Shelley's fascinating story of the fabrication of a monster against the background of the Judaic and Christian creation myth of Genesis as we find it in the Torah and in the Christian Old Testament.

We note first of all that this religious myth of creation makes no reference to what we in the modern world understand by a natural universe. The closest this myth comes to describing a natural universe would perhaps be the inhospitable *tohubohu*, understood as the empty wasteland that was the world prior to its creation. The myth concerns itself with the purposeful coming into being of a new world in which there would be an assigned place for both divine and human being, as well as for animals, plants and inanimate things. The myth understands this human world as a *cosmos*, that is, as an ordered and inhabitable whole that promotes fruitful interaction between all of its parts and that has as its ultimate destiny a harmonious conversation between the realms of heaven and earth. Within that context we come to understand the modern universe as a specific and useful natural scientific abstraction of a created world, in which natural forces play the cohesive role that love and language play in the creation and maintenance of a human and divine cosmos.

The Priestly version of the creation myth, such as we read it in the Book of Genesis, describes the creation of the cosmos as a *rhythmic* process in which moments of the creator's active, "hands-on" intervention into the material order are followed and completed by moments of "hands-off" rest (*shabbat*), contemplation and benediction. In this way the Genesis myth presents the act of creation, not as a single progressive or productive movement that leads from raw material to finished product, but as a rhythmic temporal sequence that alternates moments of forceful, "workaday" ordering and separating, with moments of "festive" contemplation and benediction.

In this way, the Genesis story offers a template for human making and creating in which a time of forceful muscular or intellectual activity is always followed by a time of contemplative thinking, thanking and praising. We might put this differently by understanding the divine creative act as always already internally divided between, on the one hand, an active, workaday part that can be thought of as foreshadowing the reigning activity of our daily life and that necessarily completes itself in a subsequent, festive, contemplative or sabbatical practice.

Thus, we read that on the third day of creation:

God said: "Let the waters under the heaven be gathered together in one place, and let the land appear." And it was so. God called the dry land Earth and the waters that were gathered together he called Seas.

This period of "mundane" activity is then immediately followed by a contemplative phase of creation: "And God saw that it was good."

To interpret this phrase we must keep in mind the opening words of the Gospel of John that proclaim: "In the Beginning was the Word."

We may think of this Word that precedes the founding of a human and divine world as a blessing that affirms both the separateness of the two spheres of creation and their indissoluble

interaction. The *Word* refers here to what brings and binds together heaven and earth as well as self and other. We might think of this Word as the miracle that heals the ontological divide between heaven and earth or between mother and newborn child, or between one generation and the next.

This paradigmatic dual pattern is repeated on the third day of creation with the generation of plants yielding seeds and of trees bearing fruit. It is repeated again on the fourth day with the birth of the stars, the seasons and the years. It reappears on the fifth day when the sea becomes the habitat of fish, and the air the realm of birds; and again on the sixth day, when terrestrial animals begin to populate the earth. It is reiterated, finally, and with added emphasis, on the same sixth day, when creation reaches completion with the appearance of Adam and Eve. At that moment, the final sabbatical phase of contemplating, praising, and resting is announced with added emphasis: “And God saw everything that he had made, and behold, it was very good.”

The King James Version of the Priestly story of creation ends by setting the sixth days of creative labor apart from the festive, seventh day.

Thus the heavens and the earth were finished, and all the host of them. And on the seventh day God ended his work, which he had made; and he rested on the seventh day from all his work, which he had made. And God blessed the seventh day and sanctified it; because that in it he had rested (shabbat) from all his work which he had made.

What is important to note here is that the drama of divine creation unfolds very much the way an instance of hospitality or of fruitful conversation unfolds. Hospitality and conversation come to be understood in this context as foundational creative acts that build and hold together a human and divine world.

When a guest presents himself at the house of his host, the latter comes from inside his house to unlock and open the door to his guest. This action can be understood as the active, “muscular,” or “workaday” part of creation. After he has opened the door, the host steps back into the hallway to clear a passage while he invites his guest to come forward and enter the house. This second part of withdrawing and invitation we may understand as “blessing the arrival of the guest” and as saying in effect: “It was good of you to come.”

Conversation follows a similar fundamental protocol that demands that after the host has posed a question or expressed an opinion, the guest is invited to come forward in turn to express thoughts and feelings that accord with his particular experience. Thereafter, the roles of host and guest are reversed so that it is now the guest who assumes the role of host by asking his partner to come forward and to give verbal expression to his presence. The meaning of such a hospitable or conversational encounter is that it provides an occasion and a setting for a host and a guest to come together in ways that build and create a human and divine world.

We note here specifically that within this context creation does not present itself as a willful act or as anything that suggests a *making* or *fabricating*. We learn from Genesis that what sets a divine and human world apart from a primordial chaos, as well as from a modern material universe, is that it makes place for reciprocity and human encounter. In such a world creative desire find expression in an exchange of glances, words and gifts. It is this exchange that lays the foundation for a human and divine world. The biblical story shows us that creation is not in the first place a question of *making*, but rather an act of hospitality and, therefore, of *making place* for a self, an Other and another world.

When God blesses the first human couple, he binds himself to them and offers them a place within the cosmos. Creation appears here most essentially as the creation of *a meaningful relationship* between heaven and earth, mortals and immortals, man and woman, child and adult, host and guest, neighbor and neighbor, self and other.

We may produce or fabricate singular object and thereafter dispose of these at will. But the act of creation is always already an act that forges a reciprocal and affectionate bond between a host and a guest, who thereby are transformed into a couple and in a fruitful and meaningful whole.

If we place the narrative of Genesis alongside Shelley's account of Victor's failed attempt to create human life we become at once aware of the striking differences of the two narratives. The Genesis account understands creation as an act of hospitality that leads from a solitary and closed unity to a companionable, *conversational* duality and multiplicity. Creation manifests itself here as an act of *bringing together*, of forming the fruitful couple of heaven and earth that repeats itself in the coming together of God and his people and in that of Adam and Eve, man and woman, mother and child, neighbor and neighbor, friend and friend and of self and other.

We noted that Shelley's novel is entirely framed within an exchange of letters between a loving brother and a sister. That exchange does not form a closed circle but, on the contrary, opens up a human and divine world. Robert's world *makes place* for a sister and for friends; he lives in a world where companionship, hospitality and family relations play a determining role. We might say that he lives in a world described in Genesis, in which there is place not only for God, but also for Adam and Eve, for plants and animals, for land and sea and even for poetry, myth and natural science.

By contrast, we see Victor as neglecting and finally abandoning all cultural efforts that do not concretely contribute to the scientific conquest of a modern, materialist universe. Techno-science sucks here all the oxygen out of social, cultural and artistic life and thereby asphyxiates all what makes human life pleasurable and worthwhile living.

Mary Shelley's *Frankenstein* places us before the choice of whether we are to construct a human science that fits the contours of Robert's life, or one that accepts as its ultimate horizon Victor's natural scientific universe.

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