Man, Woman, Puma, Leopard: Technology and the Body

Rosanne Simeone
University of Virginia

What value ought engineers place upon the human body? Do different bodies earn different values? What about animal bodies? How should technological advances affect the human body? This paper will use a new undergraduate course entitled “Technology and the Body” to discuss how one group of second year engineering students in a variety of majors addressed the value of the human body and bodily integrity from physical, social, cultural, and ethical perspectives. This paper will focus on body-altering technologies as portrayed in H.G. Wells’s The Island of Dr. Moreau (1896). In addition to raising animal-human, gender, and mind-body issues, this novel questions the level of responsibility required of the researcher towards his subjects and towards other professionals.

The Island of Dr. Moreau
A classic of science fiction, The Island of Dr. Moreau tells the tale of a mad vivisectionist who toils on a remote Pacific island, attempting to transform animals into humans. We first meet our narrator, Edward Prendick, a natural historian, in the dinghy of the Lady Vain, a ship that has recently sunk. Castaway from the very opening of the novel, Prendick relates how he alone survived the ordeal. Although the three men in the boat had finally agreed to draw straws to determine the unfortunate sacrifice for cannibalism, the two other men fought over the result, struck their heads on the gunwale, fell overboard and drowned. Consequently, when Prendick is rescued by the cargo ship Ipecacuanha, he is suspected of having killed and eaten his companions. His recovery depends upon the ministrations of Montgomery, Moreau’s assistant, and is accompanied by the angry growlings of the caged female puma.

The drunken captain of the Ipecacuanha casts Prendick adrift once more, and Montgomery, with Moreau’s permission, rescues him a second time, towing him to the island. Once on the island, Prendick is initially kept in the dark about the vivisection experiments taking place. The howlings of the puma, however, drive him out of the enclosure, where he encounters the products of Moreau’s previous experiments: the deformed beasts of the island. After learning that Moreau practices vivisection, Prendick believes that Moreau transforms men into animals and fears that he himself will be Moreau’s next subject. Prendick’s attempted escape set in motion Moreau’s explanation of the experiment, the puma’s escape, Moreau’s and Montgomery’s deaths, and Prendick’s final months on the island among the Beast People.

Value of the Animal versus Human Body
Prendick responds to Moreau’s experiments with much more horror and aversion when he believes that Moreau is vivisecting human beings. This difference in reaction raises questions
for the students studying The Island of Dr. Moreau. In order to set up larger questions about personal and professional responsibility, we can initially interrogate the text itself: Why does Prendick try to avoid responsibility for rescuing the puma? Why does Prendick respond so vehemently when his own—a human—life is at stake? In each of the following sections, I will set forth the passages from The Island of Dr. Moreau that raise such questions for the students and suggest some of the issues that complicate the answers.

Prendick responds to the cries of the puma being vivisected with concerns for his own comfort level:

I found myself that the cries [of the puma] were singularly irritating, and they grew in depth and intensity as the afternoon wore on. They were painful at first, but their constant resurgence at last altogether upset my balance. (24)

The emotional appeal of those yells grew upon me steadily, grew at last to such an exquisite expression of suffering that I could stand it in that confined room no longer. (24)

Wells employs phrasings that the reader would expect to apply to the puma’s pain to instead delineate Prendick’s discomfort. The cries were “painful at first” to Prendick himself. Instead of responding to the puma’s “emotional appeal” by seeking to relieve her suffering, Prendick is concerned with how much the cries of pain irritate him, and upset his balance. He flees the room:

The crying sounded even louder out of doors. It was as if all the pain in the world had found a voice. Yet had I known such pain was in the next room, and had it been dumb, I believe—I have thought since—I could have stood it well enough. It is when suffering finds a voice and sets our nerves quivering that this pity comes troubling us. (24)

Remarkably, Prendick acknowledges that he ought to feel pity, that the puma’s voice ought to trouble him. Instead of acting upon his concerns, however, he reasons with himself that the fault lies in him for emotionally responding to the cries. He “could have stood it well enough,” he could have been the stoic researcher, if the animal were mute. He walks out of earshot.

The distinction Prendick makes between the value of a human life and the value of an animal life becomes clear in the very next chapter, “The Crying of the Man.” This time Prendick believes he hears a human, not the puma, being vivisected in the laboratory. His response this time is markedly different:

There was no mistake this time in the quality of the dim broken sounds; no doubt at all of their source. For it was the groaning, broken by sobs and gasps of anguish. It was no brute this time; it was a human being in torment! (32)

Prendick bursts into the laboratory, sees the unfortunate puma, and presumes it is a man. Moreau hurls Prendick out of the room and locks the door. Prendick muses, “Could it be possible...that such a thing as the vivisection of men was carried out here?”(33). And instead of trying to escape the sounds of suffering, Prendick worries that he himself is in danger of becoming Moreau’s next subject. His anger reveals his concern with being over-powered by the other men:

These sickening scoundrels had merely intended to keep me back, to fool me with their display of confidence, and presently to fall upon me with a fate more horrible than death-
-with torture; and after torture the most hideous degradation it was possible to conceive—to send me off a lost soul, a beast, to the rest of their Comus rout. (33)
The hierarchy of man over animal is clear here: while the vivisection of animals may trouble Prendick, the vivisection of men requires action.

These passages should raise a series of questions for the students. We can begin with exploring why Prendick values animals less than humans. Prendick’s stance is complicated, of course, by the fact that Moreau has essentially created animal-human hybrids:

It may seem a strange contradiction in me—I cannot explain the fact—but now, seeing the creature [the leopard man] there in a perfectly animal attitude, with the light gleaming in its eyes, and its imperfectly human face distorted in terror, I realized again the fact of its humanity. (62)

Would the rights of these hybrids fall somewhere in between those of pure animals and pure beasts? Or does any level of humanity raise such creatures to the level of human? The students in my “Technology and the Body” course struggled mightily with these questions, coming to no consensus. Many students argued that the animals had innate rights; other argued that Moreau’s transformations of them into human hybrids conferred rights upon them; still others argued that their continuing status as research subjects left them with very few rights, none of which were innate, all of which were granted.

At this early point in the semester, and this early point in our discussion of Moreau, most students could not appreciate that they, too, reacted as Prendick: feeling more outrage at the puma-human’s cries than the puma’s cries. They were not able to connect their own different reactions to Prendick’s different reactions. Most students insisted upon firm boundaries between animal and human. That allowed them to insist upon different responsibilities towards animals versus humans. The notion of a hybrid could not be sustained in class.

Issues of Gender
Like Mary Shelley’s Frankenstein, Wells’s Island of Dr. Moreau “depict[s] the takeover of natural female function by crazed male science.”  Frankenstein uses technology to create life while Moreau uses it to metamorphose animal into human life, and both play the role of parent to their creatures. Indeed, the only females on the island are some of Moreau’s subjects. Curiously, though, as Moreau first introduces Prendick to the island, he suggests that all of the creatures are female in some sense:

“Our little establishment here contains a secret or so, is a kind of Blue-Beard’s chamber, in fact. Nothing very dreadful, really, to a sane man.” (20)
The reference to Bluebeard places Moreau in the positio
n of a serial wife slayer, which in the context of this story, suggests a hierarchy of masculine over feminine, a hierarchy of researcher over subject, his absolute power over the creatures, and their ultimate deaths.

Prendick himself buys into this subjugation of the experimental subject through the power of the researcher. As noted above, Prendick faults himself for not being stoic enough to withstand the puma’s cries of pain. Moreau, who is conducting the experiments, is implicitly more in control of his emotions, more masculine than Prendick at this point. The cries prompt Prendick to explore the island, and he discovers the Leopard Man, who is regressing into the beast behavior of hunting, walking on all fours, and sipping water from the river. The Leopard Man hunts
Prendick, who escapes only by firing a rock at him like a weapon. This quintessentially masculine scene serves to establish Prendick’s ability to dominate the Beast People, just as Moreau does. As he runs back to the perceived safety of the research compound, however, Prendick takes peculiar comfort in once again hearing the puma’s cries:

And presently, with a positive effect of relief, came the pitiful moaning of the puma, the sound that had originally driven me out to explore this mysterious island. (30)

At this point, the cries of pain offer Prendick perhaps another opportunity to demonstrate his masculinity, or his self-control.

Indeed, the conquering of desire, particularly sexual desire, drives much of Moreau’s work. As he defends his work to Prendick, Moreau’s words betray his own desire to eradicate such non-rational, and so perhaps feminine, aspects of the beasts. He sees this puma as his next opportunity to shape a rational human:

Each time I dip a living creature into the bath of burning pain I say, “this time I will burn out all the animal; this time I will make a rational creature of my own!

Yet they’re odd. Complex, like everything else alive. There is a kind of upward striving in them, part vanity, part waste sexual emotion, part waste curiosity. It only mocks me have some hope of that puma. I have worked hard at her head and brain.” (51)

To destroy desire in a female animal, of course, poses the greater and more rewarding challenge. The puma, however, turns out to be Moreau’s final subject and the cause of his death. Such a narrative twist offers the reader a cautionary interpretation. Frankenstein pierced the veil of Nature and sought to create life using his forbidden knowledge; his creature punishes him for that crime by destroying those he loves. Similarly, we might read Moreau as over-reaching science by seeking to eradicate basic instincts, basic life forces in his creatures. His beasts then may serve the narrative function of punishers, as well, by destroying him.

With Moreau essentially playing both mother and father to his creatures, the question of natural reproduction on the island arises. Montgomery informs Prendick that the female beasts are fewer in number and “liable to much furtive persecution in spite of the monogamy that the Law enjoined” (53). The beast people do reproduce but “these generally died. When they lived, Moreau took them and stamped the human form upon them. There was no evidence of inheritance of acquired human characteristics.”(53). Yet it appears that some of the Beast people have learned how to protect their young from the House of Pain:

Montgomery called my attention to certain little pink animals with long hind legs, that went leaping through the undergrowth. He told me they were creatures made of the offspring of the Beast people, that Moreau had invented. He had fancied that they might serve for meat, but a rabbit-like habit of devouring their young had defeated this intention. (56)

Prendick may have fancied that he himself prompted the beast people to begin to think; he marveled after his shouting that Moreau could be killed that “They may once have been animals; but I never before saw an animal trying to think“ (45). It appears, however, that some of the animals, at least, had already begun to think rationally about Moreau and had devised a way to protect at least their young from a far worse fate than death.
The capacity for original thought raises the issue of the creature’s difference from its raw materials and its inventor’s intentions. We have already noted that the animal-human hybrid may occupy a peculiar position of the continuum of rights warded to animals and to humans. At several points in the novel, the Beast People surprise Prendick with behavior that he does not expect of animals or even hybrids. The females, for example, surprise him with their rather human sense of modesty:

It is a curious thing, by the bye, for which I am quite unable to account, that these weird creatures, the females I mean—had in the earlier days of my stay an instinctive sense of their own repulsive clumsiness, and displayed in consequences a more than human regard for the decencies and decorum of external costume. (55)

These unexpected behaviors and thought processes prompted students to question the level of control a researcher can truly have over an experiment, particularly one with live subjects. As Schinzinger and Martin have well discussed, engineering itself is a form of social experimentation; technological innovations affect live subjects.  

The “Technology and the Body” students at length debated Moreau’s interference in the “natural” lives of the beasts, both before and after the vivisection experiments. Most students were appalled that Moreau ceased to care for the creatures after he had created them; they were also disturbed by the Law that he invented and brainwashed into the creatures. Essentially, the students wanted Moreau to either fully take care of the beast people or to leave them entirely alone. It was again the blurring boundaries that was difficult for the students to accept: Moreau had dramatically interfered with the beasts’ lives by turning them into beast people, so he could not, according to the students, abdicate responsibility now.

The Purpose of Scientific and Technological Innovation

Perhaps the largest question looming in Prendick’s, and the reader’s, mind is why use vivisection on animals to create human-ish creatures at all? In the context of the novel, is Moreau a mad scientist or does vivisection represent a point of public versus scientific difference? Moreau is clearly set up in the novel as a previously very well respected scientist:

I had been a mere lad then, and Moreau was, I suppose, about fifty—a prominent and masterful physiologist, well-known in scientific circles for his extraordinary imagination and his brutal directness in discussion. Was this the same Moreau? He had published some very astonishing facts in connection with the transfusion of blood, and in addition, was known to be doing valuable work on morbid growths. Then suddenly his career was closed. He had to leave England. (21)

Indeed, as Moreau explains his research to Prendick, he justifies it in terms of its connection to previous, well known, and well regarded research:

“These creatures you have seen are animals carven and wrought into new shapes. To that, to the study of the plasticity of living forms, my life has been devoted....I see you look horrified, and yet I am telling you nothing new. It all lay on the surface of practical anatomy years ago, but no one had the temerity to touch it. It’s not simply the outward form of the animal which I can change. The physiology, the chemical rhythm of the creature, may also be made to undergo an enduring modification, of which vaccination and other methods of inoculation with living or dead matter are examples that will, no
Because Moreau’s manufacture of monsters (46) is, in his view, merely an extrapolation of common knowledge in the field of practical anatomy, because it merely extends the work of other, respectable scientists, and because its method parallels his own previous, well regarded work, he argues that his new work is comparably respectable.

Wells’s 1895 essay “The Limits of Individual Plasticity” presents an argument similar to Moreau’s in favor of pursuing the scientific possibilities of vivisection. Wells’s argument begins with asserting the limits of heredity; living creatures should not be predestined to achieve only what they inherit. The plasticity of the living creature ought to enable scientists to re-mold it, and that new shape ought to offer the creature new opportunities:

We overlook too often that a living creature may also be regarded as raw material, as something plastic, something that may be shaped or altered, that this, possibly, may be added and that eliminated, and the organism as a whole developed far beyond its apparent possibilities. We overlook this collateral factor, and so too much of our modern morality become mere subservience to natural selection, and we find it not only discreetest but the wisest course to drive before the wind. (90)

Instead of further discussing what those new opportunities might be, instead of speculating on the advantages the new science offers to the subject, Wells focuses on what the living creatures as raw materials offer to the scientist for achieving his own visions:

If we concede the justifications of vivisection, we may imagine as possible in the future, operators, armed with antiseptic surgery and a growing perfection in the knowledge of the laws of growth, taking living creatures and moulding them into the most amazing forms; it may be, even reviving the monsters of mythology, realizing the fantasies of the taxidermist, his mermaids and what-not, in flesh and blood. (90)

By noting the fantastic, indeed even monstrous, potential products of vivisection, Wells seems particularly enthusiastic about following the trajectory of scientific discovery. Yet his argument raised more questions for the students of “Technology and the Body” regarding the integrity of the body. To what extent is it appropriate to use technology to alter the body? Why do we place limits on such alterations? Do such limits depend upon cultural perceptions of how the body reflects individuality or even free will? We came to no consensus in answering these questions.

Prendick accepts Moreau’s reasoning for the most part, yet he still wonders to what end all of this pain will lead. “Where is your justification for inflicting all this pain? The only thing that could excuse vivisection to me would be some application—“ (47). Moreau’s reply appeals to Prendick’s, and the reader’s, belief that the search for knowledge is an absolute good in and of itself:

“You see, I went on with this research just the way it led me. That is the only way I ever heard of research going. I asked a question, devised some method of obtaining an answer, and got—a fresh question. Was this possible, or that possible? You cannot imagine what this means to an investigator, what an intellectual passion grows upon him! You cannot imagine the strange colourless delight of these intellectual desires! The thing before you is no longer an animal, a fellow-creature, but a problem! Sympathetic pain—all I know of it I remember as a thing I used to suffer from years ago. I wanted—it was
the one thing I wanted—to find out the extreme limit of plasticity in a living shape….To this day I have never troubled about the ethics of the matter.” (48-49)

Moreau’s is the cool logic of a “logical lunatic.” In his explanation, however, Moreau does identify two criteria that are perhaps essential to ethical research: (1) sympathy, empathy, or the ability to imagine the subject’s pain and (2) a constructive purpose for the research.

Moreau’s reasoning raises profound questions for students raised in a culture that assumes the inexorable progress of technological innovation. Just because an innovation is possible, should we implement it? Can we choose not to pursue an innovation? Many students noted that vivisection is not condemned outright in the book; only particular uses of vivisection are condemned. Who, they speculated, ought to be responsible for deciding which uses are appropriate? Many students said they would like to be able to rely on peers and professional societies to make such distinctions, but they also noted the conflict between even peer regulation and innovations that can make a career.

Conclusion: Issues of Professional Responsibility

We can further ask what this narrative suggests about the nature of scientific explorations: How does this difference in value between human and animal bodies illustrate differences in the responsibility of the researcher and of his peers? The changing attitude toward vivisection itself should raise concerns about research methods and our limited ability to assess how humane and ethical our own current research methods may be. Indeed, Moreau’s exile from society was prompted by changing public, if not scientific, opinions about the innate cruelty of vivisection:

It was in the silly season, and a prominent editor, a cousin of the temporary laboratory assistant [who infiltrated Moreau’s laboratory], appealed to the conscience of the nation. It was not the first time that conscience has turned against the methods of research. The doctor was simply howled out of the country. It may be that he deserved to be; but I still think that the tepid support of his fellow-investigators and his desertion by the great body of scientific workers was a shameful thing. Yet some of his experiments, by the journalist’s account, were wantonly cruel. (22)

Moreau’s exile remains somewhat mysterious, because as Prendick notes, in scientific circles, vivisection was accepted to some degree as a legitimate research method. “Yet surely, and especially to another scientific man, there was nothing so horrible in vivisection as to account for this secrecy”(22). It appears that it is the degree of cruelty, not the mere fact of cruelty, that is the key to understanding Moreau’s crime.

Like Victor Frankenstein, Moreau refuses further responsibility for his manufactured monsters. “I turn them out when I begin to feel the beast in them….I take no interest in them” (51). And he, like Frankenstein, abdicates this responsibility because his products disappoint him:

“[T]here is still something in everything I do that defeats me, makes me dissatisfied, challenges me to further effort….But it is in the subtle grafting and reshaping one must needs do to the brain that my trouble lies. The intelligence is often oddly low, with unaccountable blank ends, unexpected gaps. And least satisfactory of all is something I cannot touch, somewhere—I cannot determine where—in the seat of emotions.” (50-51)

It is, of course, precisely his goal that eludes him: Moreau seeks to manufacture entirely rational creatures, yet he cannot locate the “seat of emotions,” the source of irrationality.
Prendick, as our narrator, three-time castaway, and only survivor, would seem to offer a voice of reason within the novel. He may, indeed, be read as a mythic hero “returned from the land of the dead” and entrusted with a message for humanity. But even in his criticism of Moreau, Prendick still seems willing to support the vivisection experiments:

Had Moreau had any intelligible object, I could have sympathized at least a little with him. I am not so squeamish about pain as that. I could have forgiven him a little even had his motive been only hate. But he was so irresponsible, so utterly careless! His curiosity, his mad, aimless investigations, drove him on, and the Things were thrown out to live a year or so, to struggle and blunder and suffer, and at last to die painfully. (63)

Prendick seems to have learned much from Moreau. He may have fled from the puma’s cries earlier in the novel, but now he is “not so squeamish about [another creature’s] pain.” And though Moreau may not be able to erase emotions in animals, ha has done so in Prendick: “I heard without a touch of emotion the puma victim begin another day of torture”(64).

So the students were left to navigate a passage between ethical research and cruelty on their own. What should Prendick have done about the puma? About Moreau? What professional responsibility does the researcher have for his subject? For his peers? By considering such difficult questions, students may gain a stronger sense of the purpose of engineering.

Bibliography

ROSANNE SIMEONE
Rosanne Simeone is a Lecturer of Technology, Culture, and Communication in the School of Engineering and Applied Science at the University of Virginia. Her research focuses on the social and cultural contexts for contraceptive technology. She is currently examining the descriptions of feminine spaces and materials for those spaces in nineteenth century American literature and patent descriptions.