Frankenstein - Part 2

So, hello and welcome to this NPTEL course titled The Novel Unchanged. We will continue the discussion and the study of Mary Shelley's Frankenstein. So we read in the introduction of the selected edition that we have chosen for this purpose of this course. And lastly, we stopped last time. We looked at how this particular edition is aiming at a very holistic audience, looking at people studying science, technology, also arts and humanities and medicine. So this team edition, as they cleverly call it, How is it relevant because it is addressing a really holistic, you know, massive spectrum of people working across different epistemic disciplines. Now what we will move on today with is how the word steam makes a lot of sense when you look at Frankenstein because it refers back to Industrial Revolution, James Watt, the whole idea of domesticating steam, using steam for industrial purposes, the scaling up of steam as it were and how that gave birth to railways as a commercial entity. and how the railways, other kinds of manufacturing, circulation, commodification, they all came into being. So, steam provides us a launching point. This should be on the screen.

Steam provides us a launching point for analysis of Frankenstein, for its action takes place in the 1790s, by which time James Watt had radically improved the steam engine and in effect started the Industrial Revolution. which accelerated the development of science and technology as well as medicine and machines in the 19th century. So industrial revolution in the 19th century, of course, was a big thing, was a big event. It created a lot of cultural reformations. It accelerated many things. It made life faster, smoother in many ways. It

opened up the market and it gave some kind of a push to us, an impetus to us, a democratization of knowledge. But at the same time, this is also the point, the epoch in human history. where innovations start to become industrialized. And this industrialization of innovation, this commodification of innovation is a very important thing we must remind ourselves of, especially in the context of this novel, because anything which is created can become a commodity. Anything which is manufactured and produced can become an entity, which can then become a commodity, which can then enter the market for circulation and consumption. The new steam engine powered paper mills, printed newspapers, and further developed commerce through steamboats and then trains. So steamboats and trains were the two big locomotives, as you can imagine, which could transport people, but also commodities, heavy goods. heavy industrial products, heavy industrial raw materials and these raw materials obviously could be shipped off, could be put in a train and then transported across you know different points of one country or even other countries internationally and this began to create what we now call the global market of you know creation and consumption. The market begins to open up with industrial revolution, right.

So the shared, the sense of a shared commodity, a shareable commodity begins to come into these same years were charged and see this is the point of reading this passage is because it's a very good example of how the novel and change that the philosophy of this course is actually underscored in very very direct ways because what we see over here is a direct relevance of a novel a work of fiction in terms of what is happening in terms of social diachronic movements around the time. So, we have on the one hand the massive industrial revolution was opening up, you know, the whole idea of the commodity and transportation and kindnesses and consumption through steamboats and trains. On the other hand, in a political level, this is also the time of the big French Revolution, which is about the fall of the Bastille, the fall of monarchy, and the whole idea of liberty, equality, fraternity, those beautiful buzzwords that emerged. out of the French Revolution, how that also gets invested into an open market as it was. So open market, liberty, equality, fraternity. So, some kind of a global cosmopolitanism, at least at a philosophical level, is beginning to make his presence felt, even as a soundbite. Right. So, the French Revolution is also there

at the backdrop of Frankenstein. But also, we have to remind ourselves and the edition does remind us very morally I think is that the French Revolution should not be seen as just a glorious movement of liberty. Right. Because remember the French Revolution was also followed by a reign of terror. So, it was in a very dark in many ways was complete curfew, complete surveillance, complete breach of any kind of agency. And most importantly, the entire liberty, equality, fraternity was a very limited Western European construct. It did not travel across and translate it into opening up the colonies or getting rid of the colonies or any kind of a decolonization.

If anything, you know, post-French Revolution actually increased colonization in many, many interesting ways. So, there's some paradox and contradiction over there as well. So one has to be a little bit careful in being a little bit too euphoric about the French Revolution. And one must take a more cautionary, more guarded approach to understanding and reading it as a serious scholar. So, the same years were changed or charged by the French Revolution. And anyone wishing to do a chronology of the action in Frankenstein will discover that Victor went off to the University of Ingolstadt in 1789, the year of the fall of the Bastille, and he developed his Creature in 1793, the year of the reign of Terror in France. So, Robespierre and then other figures of the reign of Terror which was there in France. So you find how the fall of the Bastille, the reign of Terror, all these become these very spectral backdrops to the novel Frankenstein. So, Terror as well as Edda was a child of both revolutions. So in some sense you know, one can see how the Industrial Revolution as well as the French Revolution created this euphoria, this openness. At the same time, there's also this very flip side of darkness, you know, a very undesirable side, which brought in many catastrophic changes in human society, human mentality, etc. Right. So both the Industrial Revolution and the French Revolution may be seen as scientific and social experiments which had very complex repercussions in society afterwards, right. So there were these good bits, euphoric bits which opened up and innovated things. At the same time there were these very dark and undesirable bits which created a sense of surveillance, sense of terrorization, sense of totalization which were You know one could have well done without right. So both terror and error were the child of both revolutions and Mary's novel, Mary Shelley's novel Frankenstein records the

terrorizing effects of the birth of the new revolutionary age. in the shadows of which we still live, right? So which is why it is so deeply, it still deeply resonates with our times because, you know, we still live, one might say, in the shadow of the industrial revolution, the shadow of the French revolution, this entire idea of, You know this euphoric age created by a political movement which is quickly followed by a reign of terror, the euphoria created by scientific innovation which quickly translates into other kinds of undesirable conditions and gadgets and technologies.

 The flip side of science, the flip side of innovation is something which we constantly negotiate with in the world we live in today. So, Frankenstein presents us with a world full of shadows and darkness. and terror. We frequently read about these three words and their variance in the text of Frankenstein. We encounter the visuals of these three words in the many hundreds of stage and screen adaptations of this novel. So, we just heard about in the previous class the Daniel Radcliffe version of the novel where there's a character called Igor who is a hunchback from a circus who becomes a character. So there are these very, very interesting additions to the novel, not just reconstructions but also additions in terms of new characters being added. So, one can see how alive and how animated and how organic Frankenstein still is, the myth of Frankenstein, the story of Frankenstein still is in our contemporary times. So, we experience the shadows and darkness and terror when we read the many news reports about cloning, genetic engineering, frankenfoods and the most recently unearthed frankenvirus announced in September 2015. So, you know, I can see even in September 2015, many, many years later, a century after the novel was written, we can see how the vocabulary of Frankenstein lends itself into, you know, different kinds of pathological classifications, different kinds of virus classifications. So, all of these references derive their metaphoric origin from a teenager named Mary Godwin. So, you know, Mary Shelley's maiden name. And as you remember, she was a teenager when she wrote the novel. So, all the references can be seen, can be traced back to Mary Godwin, who eloped to the continent with the elderly, already married poet, Percy Bessie Shelley.

So, Shelley was already married, and Mary Shelley eloped with him in late July 1814, when she was 16, began writing her novel about Victor and his creature in Geneva in mid-June 1816, when she was 18 married Percy in London in late December 1816, after his first

wife, Harriet, committed suicide, finished her novel in April or May 1817, when she was 19, and published it on 1st January 1818. So, this gives a chronology in terms of how we can situate Frankenstein. So, the novel was published in 1st January, New Year's Day, 1818, and the novel was finished, the manuscript was finished around May 1817. And when the novel was published, she was barely 20 years old. And this team edition of the novel is being prepared exactly 200 years later in commemoration of the bicentennial of this young woman's achievements. So again, it's interesting how the very feminist take, on science, this very critique of certain aspects of science is being celebrated in the bicentennial of the publication of this novel. Hence, the steam edition is important because it sort of addresses massive spectrum of readers, the range of readers. Now, we spent a little bit of time talking about Mary Shelley's background because I think it's important for us to familiarize ourselves with the background. It needs to be firmly stated here that Mary was not a luddite opposed to new technology. So, it's not that she was anti-technology, that she was anti-science. In fact, she was very interested in scientific matters. probably as a consequence of her parents, Mary Wollstonecraft and William Godwin. Wollstonecraft was a famous political philosopher and feminist who died 11 days after her daughter was born. as Mary Godwin. But the daughter was nurtured by reading her mother's works, including thoughts on the education of daughters and a more famous, maybe familiar to most of you, vindication of the rights of women. So, she comes from that massive legacy of feminism, Mary Shelley, a mother who unfortunately died days after she was born, is one of the founding figures of feminism in Western Europe. This massively popular book and famous book even read today Vindication of the Rights of Women, published in 1792, in which she argued that elementary school girls of the period should perform the simple experiments in natural philosophy of science that boys of the same age perform. So, equality with boys in terms of education, equality with boys in terms of, you know, epistemic access. Mary also received a scientific education indirectly from her father, a famous novelist and political philosopher who was visited at home by many famous writers and intellectuals, including the scientist and inventor William Nicholson. As a young girl, Mary almost certainly met Nicholson during his many visits to Godwin up until February 1810, and she likely knew of his publications, which included The First Principles of Chemistry, and his earlier student textbook, Introduction to Natural Philosophy.

So, what this passage is trying to tell us is Mary Shelley's acquaintance and very close intellectual kinship and association with the leading philosophers, the leading scientists of her times. As William St. Clair has remarked in his authoritative biography of the Godwins and the Shelleys, William Godwin turned to Nicholson for information on the latest theories, in chemistry, physics, optics, biology and other natural sciences and for his advice on scientific method, right. So, Nicholson of course was one of the leading figures in England at that time you know connecting science and philosophy and chemistry and Mary Shelley's acquaintance with him and with the works that were discussed in his home in our home obviously allows us to assume that she was deeply acquainted and familiar with the latest and contemporary scientific treatises and discourse of times. When Mary met Percy Shelley, she learned that he had been encouraged in his scientific studies at Eton by Dr. James Lind, who was a member of the Lunar Society, a club that included scientists such as James Watt, the physician and poet and natural philosopher Erasmus Darwin, who published Zoonomia, medical philosophical treatise dealing with such matters as reproduction, development, cessation and disease. And the dissenting minister and political activist Joseph Priestley who knew Benjamin Franklin and published the history and present state of electricity with original experiments. Mary also must have known that at Oxford 1810-11 Percy had constructed his own electrical kite, made sparks by electrical apparatus and stored the fluid of electricity in laden jars. These actions provide the basis for the electrical experiments by Victor's father Alphonse in Frankenstein. So, you can see how there are a lot of biographical raw data which enter the novel, right.

So, this entire idea of this interest with electricity, the obsession with electric charge and the stove charges and kettles which are things which happen in different ways in the novel itself. We can see how there's direct biographical evidence that Mary Shelley was acquainted with all this happening around her when she was growing up, including her knowledge and information about her husband. The two Shelleys attended at least one of the many lectures in London on chemistry and electricity at this time. Mary recording on 28 December 1814 that they attended the Theatre of Grant philosophical recreations at the Great Room, Spring Gardens, where the famous balloon ascender and parachute descender,

Professor Garnerin, gave a lecture entitled Electricity, Gas, Aerostation, Phantasmagoria and Hydraulic Spirits. In Geneva in June 1816, during the coldest summer on record, Mary listened to conversations between Lord Byron and Percy about possibly discovering the nature of the principle of life, about galvanism and experiments of Erasmus Darwin, and about the possible reanimation of a corpse. So, as you can see how the entire transgressive, prohibited knowledge that gets manifested and dramatized in a novel may have had biographical backing from the conversations that Mary Shelley was acquainted with and the kind of discourses around her at that time. And in early August 1816, she made Percy a balloon and purchased a telescope for his birthday. Within a few months, by 28 October, she recorded her familiarity with the science of Sir Humphry Davy and whose books, Elements of Chemical Philosophy, she read while she was drafting the first chapters of Frankenstein in the fall of 1816. Now, I stop at this point, but I think what we can understand very clearly through this long descriptions and details that The zeitgeist around the time, the cultural momentum around the time that Shelley was writing Frankenstein was deeply rooted in debates about science, about creation, about energy, about hydraulics, about electricity and all kinds of things. And this is also the time where the borderline between permissible knowledge and transgressive knowledge were very blurry.

And in a way we can connect it with something similar happening in today, the whole idea of algorithms and artificial intelligence, the ethical debates around AI. We can see how we can connect it back we can dial back to Frankenstein in some sense and see well this is a work in fiction which emerges as a big cautionary tale in terms of you know dramatizing the ambivalence between permissible knowledge and non-permissible knowledge between desirable knowledge and dangerous knowledge. So the production of possibility in Frankenstein also becomes the production of precarity and this very thin line between precarity and possibility is something which you find you know being dramatized with different forms in this novel and also it is deeply rooted in the cultural, scientific, technological debates around the time about electricity, about chemicals, about birth, about recreation, about procreation, about you know, regeneration, etc., reanimation, at the same time, is also deeply resonant with contemporary debates that we have today, you know, very similar debates about ethics, about accountability, about to what extent is science

permissible or permitted, should be permitted to do certain things, or whether there should be legality and legislation around science in terms of this non-permission to do many things, right. So, these are things which are novel, you know, engages itself with. But also, this is the time in which massive and major scientific discoveries are being made. Now, if you go back to Robinson Crusoe, you find that that was a time for territorial expansion, you know, the whole idea of the map is changing, you know, the whole idea of foreignness is changing, ships are sailing out of England, other Western European countries and this is the time of the birth of imperialism where the idea of going out as traders first then military people next is bringing the world, is creating a very different conception of the world and that territoriality is manifested in the novel Robinson Crusoe. So, we have similar situation over here only in terms of science. So, the territory of science is expanding. And when Shelley is writing, this is early 19th century, the legality of science, the territory of science, the morality of science, all these are in a very, very interesting mutable flux around the time.

 And Shelley's novel captures and calibrates the flux, the ambivalence, the entire dualism, the entire dilemma about science, the entire dilemma about creation, about technology, about technological progress and pursuit of knowledge, and to what extent that should be grounded in ethics and accountability. These are questions that the novel grapples with. Of course, like all great works of literature, it doesn't offer a neat answer. It leaves us with a sense of greyness, a sense of ambivalence, which is why it keeps getting circulated, keeps getting connected, keeps getting plucked on. into different debates in different times in a very diachronic way. But what this passage reveals, is that Mary Shelley is not writing a novel which is anti-science. We must be a little bit careful in looking at Frankenstein as just a blunt and blanket anti-science novel. It is not an anti-science novel because it's written by a writer who is profoundly and deeply invested intellectually in the latest debates about science. So, it is about the ambivalence around science. It's not anti, it is not pro. It is the ambivalence around science, the moral dilemma about science. So, in a way, it becomes the dramatization of a dilemma, which haunts us even today, which is why Frankenstein finds so many recirculations, so many re-editions, and so many adaptations,

even in 2024. So, we stop at this point, and we'll continue with this in the subsequent classes. Thank you for your attention.