

Globalization: Theoretical Perspectives
Professor R. Santhosh
Department of Humanities and Social Science
Indian Institute of Technology Madras

Lecture 27
Time-Space Compression: David Harvey

Welcome back to the class. We are proceeding with this discussion on Space, Time, flows and place as we began in the previous class. In the last class we had a brief discussion about some of the contemporary debates on the spatial dimensions of capitalism, especially connecting that with questions of exploitation, poverty, and others. So, in this class, I want to spend some time on trying to understand David Harvey, his argument about time space compression.

And we briefly discussed in the previous chapter, when we discussed about modernity and late modernity, what is the position of David Harvey and this argument also, he brought out very prominently in his work, the conditions of post modernity, and he discusses it in a couple of chapters in that book, I thought that it could be, it was really difficult to discuss the original essay, so I am using a PowerPoint presentation to convey that message.

So, essentially, it is quite often is seen as something very similar to that of Anthony Giddens argument about time space distanciation. So, both of them almost argue alike, similarly, in the sense that both of them understand globalization as a continued continuation of the fundamental processes unleashed by the process of modernity.

They do not consider that globalization emerges in a post-modern era, both of them are against that kind of theorization and so, their theorization essentially, that takes a long view back or they look back at the process of log of modernity and then argue that the processes that are unfolding now are almost similar to that, maybe at a much more radical character.

(Refer Slide Time: 02:28)

The means of transportation play a decisive role in historical development, with profound implications on the way that societies are structured and organized. Technology is the means through which civilisations have expanded and established relationships with each other.

According to Virilio (2000), the great historical revolutions are, above all, revolutions of speed. By allowing greater speed, each new vehicle produces new forms of transport and communication, each corresponding to a "dromocratic" revolution. Virilio argues that the most important characteristic of the industrial revolution, made possible by the emergence of the steam engine, was the transport revolution, which he calls a space-time revolution.



So, one of the most important arguments about or important features of modernity, that we discussed in the previous class as well was the host of modern technologies, a host of modern

technology is about telecommunication, about transportation, about movement of people movement of goods and services. If you read a book by David Harvey or a host of other scholars, there are statistics provided or there are very graphic details, details are provided in the form of graph about how quickly we were able to make progress, say, from the 12th century to the 16th century to the 19th century.

With the new invention of transportation technologies, new railways or steam engine, ships and then railways and then aeroplanes, the pace of change is so sudden, so fast and we were able to move people, we were able to move materials and then goods and other things in a very short span of time when you compare the long history of human beings on the surface of the planet.

So, the means of transportation play a decisive role in the historical development, with profound implications in the way that societies are structured and organized, it looks very, ordinary statement. Of course, everybody knows that earlier some four or five centuries back, people were not able to move very fast or they were not able to move goods very fast.

It is seen as again a common-sense understanding, but when you look at it from a more theoretical point of view, these transformations brought in fundamental changes in our own understanding about what constitutes society, how the world is structured, how various opportunities emerge, how we interact with each other.

So, they are extremely fundamental, this change in pace of human transportation is something so fundamental in the evolution of human beings. Technology is the means through which civilizations have expanded and established relationship with each other, again sounds a very old story.

Even earlier, we had expansionist kind of empires you we know about Alexander the Great; we know about a host of such kind of emperors who have expanded their kingdoms and then rewrote the history of human civilization, but nothing comparable to the kind of pace of change that we are seeing today.

So, according to Virilio another very important scholar who works extensively on these areas, the greatest historical evolutions are above all revolutions of speed, by allowing greater speed each new vehicle produces new forms of transport in communication, each corresponding to a democratic revolution, democracy related to the speed. Virilio argues that the most important characteristic of the Industrial Revolution made possible by the emergence of the steam engine was the transport revolution, which he calls the time space revolution.

Again, as I mentioned, it looks as if we are simply telling a historical fact, but the implication of that is something very, very important, you identify, you invent the steam engine and the steam is used in ships, steam is used in trains. It is used in different automobiles and that has really transformed or revolutionized the way in which human beings interacted, the way in which economy was carried out, a host of other kinds of changes that happened.

(Refer Slide Time: 06:27)

- The process of shrinking spatial distances is simultaneously conceptual and material, mental and physical, and situated at the intersections of meaning and matter.
- Time-space compression in the broadest sense refers to the multitude of ways in which human beings have conquered space, i.e. by crossing distances more rapidly and exchanging goods and information more efficiently.
- Allen and Hammett (1995, p. 9) offer a concise encapsulation of time-space compression as "The reordering of distance, the overcoming of spatial barriers, the shortening of time-horizons, and the ability to link distant populations in a more immediate and intense manner".



So, the process of shrinking spatial distances is simultaneously conceptual and material, mental and physical and situated at the intersections of meanings and matter. Now, this is something very important. Now, shrinking of places, shrinking of the spatial distance, the globe is becoming more smaller and smaller, there is a shrinkage of the whole world, we are able to reach other places much easier.

Now, this has both the dimensions, it has a material dimension and it also has a mental or an ideological or other kind of dimension. So, it is material mental and physical and situated at the intersection of meaning and matter. So, matter in the sense it has a material dimension, because, you talk about how people move from one continent in one country to another and what are the kinds of material aspects about it? What kind of technology?

What kind of equipment, what kind of vehicle or how much time it is? So, all that material part of that is only one part of the story, the other part of the story is that profound implications on people's lives about who they are, who are the others, how do people live? What are the ways in which we can live differently, meaningfully, a host of different kinds of ideas come into picture.

Now, we know that we talked about cosmopolitanism, we talked about how people are able to move very frequently, people including tourists, people who are students or workers or a host of people. So, all these things have very profound implications on the whole question of your identity, who you are, who are the others and how to manage your locality, how to define your locality, if you remember Appadurai and a host of others.

So, the time space compression in the broader sense refers to the multitude of ways in which human beings are conquered space, that is by crossing distances more rapidly and exchanging goods and information more efficiently. So it is nothing but what Marx argued as the annihilation of space by time and Marx did not elaborate it further, because Marx was not interested in the spatio-temporal dimensions of social change.

But rather, he argued about the annihilation of times, annihilation of space by time as an integral part of the logic of capitalism. But interestingly, what Marx predicted then now seems to be the central process of the process of globalization. So, that is why you are saying it refers to the multitude of ways in which human beings have conquered space.

You heard about business tycoon who have breakfast in London and then lunch in New York and all kinds of stories we are familiar with, the globe protein, business leaders or block protein business honchos. So, this kind of an idea is something very profound. Allen and Hamnett offers a concise encapsulation of time space compression, as the reordering of distance, the overcoming of spatial barriers, the shortening of time horizons and the ability to link distinct populations in a more immediate and intense manner.

Something that we discussed earlier. Something very similar to Giddens arguing about time space distancing. Only, I think the way of putting it across and the way of emphasizing differently, it varies otherwise, it is a similar kind of argument, the overcoming of spatial barriers and the shortening of time horizons and the ability to link distinct population in a more immediate and intense manner.

(Refer Slide Time: 10:29)

- Harvey (1989, p. 240) defines the phenomenon as “Processes that so revolutionize the objective qualities of space and time that we are forced to alter, sometimes in quite radical ways, how we represent the world to ourselves. I use the word ‘compression’ because a strong case can be made that the history of capitalism has been characterized by speed-up in the pace of life, while so overcoming spatial barriers that the world sometimes seems to collapse inwards upon us”.
- Time-space compression, therefore, serves as a means to avoid thinking of space as a passive surface and time as a linear arrow; rather, time and space loop around one another, fold in upon themselves and twist and turn in complex, contingent ways.



Now, David Harvey defines the phenomenon as the process that so revolutionize the objective qualities of space and time that we are forced to alter, sometimes in quite radical ways, how we represent the world to ourselves, I use the word compression because a strong case can be made that the history of capitalism has been characterized by speed up in the pace of life.

While overcoming spatial barriers that the world sometimes seems to collapse inward upon us. So, this is exactly what he is also talking about. So, the process to revolutionize the objective qualities of space and time that we are forced to alter, sometimes in quite radical ways, how we represent the world to ourselves, how we make sense of the world to ourselves, how do we represent the world to our ourselves, how do we understand it, how do we deal with it.

It has very significantly radicalized that way, because the way this process of time space compression has been is something so significant. I use the word compression because a strong case can be made that the history of capitalism has been characterized by speed up in the pace of life. So, the time and space have become compressed so that the capitalist production, the transformation, the transportation, everything has become much faster, while overcoming spatial barriers that the world sometimes seems to collapse inward upon.

So, the distance seems to be only an illusion, the distance seems to be only your mental construct, you are able to organize affairs, at a global scale in real time, sitting in one part of the world, all multinational companies do that, they sit and they may have a headquarters, but they need not operate from there.

At their real time, they are able to reach out to all their important offices across the globe, or they are able to decide about finance, about advertisement, about accounting with a host of other things. Time space compression, therefore serves as a means to avoid thinking of space as a passive surface and time as a linear arrow. Rather, time and space loop around one another fold in upon themselves and twist and turn in complex contingent ways.

And this is a very interesting thing, because you cannot really think of time and space as a kind of a unidirectional thing, you cannot really think that both travel in the same direction. So, space is not a passive surface, we need to discuss how social science literature looks at space as actively constructed through instaurations, through impregnating it with meanings or through social actions, through political actions through economic activities, how we make certain kinds of spaces in a given geographic area.

So, this space for example, a learning space, I mean you say that the classrooms are the spaces of learning. So, if you look at classroom as a physical entity, the space of learning could be well within the confines of the classroom, but the space of learning could extend outside the classroom if you take students to a field trip outside, that field becomes the space of learning or have a discussion when you sit with the students and then discuss in a tea shop that space becomes a space of learning.

So here and so, for example, an agricultural field and if that agricultural field is taken over by the state and handed over to some multinational companies and if there is a protest against that, as we have seen in a Singur or in Nandigram, then that agricultural field becomes a space of protest, a space of revolt, it becomes a space in which a host of other ideas and arguments and claims are made.

So, you see that these spaces are created through very conscious intervention of human beings and through their social, economic and cultural activities. So, time and space loop around one another, fold in upon themselves and twist and turn into complex contingent ways.

(Refer Slide Time: 15:11)



- Harvey adopted a Marxian approach to describe contemporary developments in capitalism which have led to the speeding up of the circulation of capital and with it a speeding up of social life in general while simultaneously reducing the significance of place.
- Harvey's concept derives from his consideration of Marx's claim that capitalism leads to the annihilation of space by time.
- Harvey contends that space-time has been significantly reconfigured since the 1970s as a consequence of the accelerated pace of the globalization of capital accumulation during this time.



Now Harvey adopted a Marxian approach to describe contemporary development in capitalism, which have led to the speeding up of the circulation of capital and speeding up of social life in general, while simultaneously reducing the significance of place. So, this is a central point I hope, we have mentioned several times.

Harvey was a Marxist, he adopted a very strong Marxian framework, when you read this book 'Conditions of Post modernity', he talks about how capitalism is still very active and kicking and whatever we are saying as a post modernity is nothing but a more radicalized form of capitalism.

So, unless you address the process of material aspects, the fundamental character of your economy or fundamental character of the simple question, how things are produced, who produces and who are benefited. So, these are some of the very fundamental, but extremely profound questions, who are the people who produce and what are the things that are being produced? And who benefit from this? Disproportionately or is this benefit mutual? or is somebody benefiting more?

These are some of the fundamental questions. So, Harvey uses this Marxian framework to explain this kind of a larger changes that are happening and describe the contemporary developments of capitalism, which have led to the speeding up of the circulation of capital and with a speeding up of social life in general, by simultaneously reducing significance of place.

Now, Harvey's concepts derived from his conservation of mass claim that capitalism leads to the annihilation of space by time, we have discussed that, Harvey contends that time space has been significantly reconfigured since the 1970s as a consequence of the accelerated pace of the globalization of capital accumulation during this particular time.

If Marx was right in saying that capitalism really represents a rupture in the process of accumulation, because you simply did not have this push for an accumulation during pre-capitalist societies. In a feudal society, there is no insatiable appetite for creating more and more capital, there the capital was tied with your land and most of the time there was no drive to expand it or there was no drive to accumulate more and more land or that was not an essential feature.

But capitalism by contrast freed itself from the land and relocated into factories and as per Marxian argument, capitalism is able to survive only because it has to create more and more profit. So, this urge to create more and more profit really makes capitalism as an extremely expansionist kind of an economic activity, unlike that of the previous one.

This particular process of capitalism, whether in the early modern period or in the late modern period is something very, very important and you need to look into that. And he argues that since 1970s, the pace of capital accumulation has increased manifold and the economic logic of capitalism, the way in which capitalism performed itself, functioned itself, underwent substantial change after 1970s and accelerated the pace of the globalization of capital accumulation during this particular time.

(Refer Slide Time: 19:12)

- This temporal framing signals the end of the alliance between labor and capital that had been forged in the most developed capitalist economies during the quarter of a century after World War II and the beginning of the neoliberal epoch.
- The end of Fordist age of industrialization and the beginning of the post-Fordist era.
- The increasing mobility of capital has led to the deindustrialization of these and similar industrial centers in capitalism's quest for ever-new sources of cheap labor. Aiding such mobility are developments that have resulted in improved transportation systems and the revolution in communication technologies.
- In combination, Harvey (1996: 297) contends, they have undermined the "monopoly of power inherent in place."



This temporal framing signals the end of an alliance between labour and capital, that had been forged in the most developed capitalist economies during the quarter of a century after World War 2, and the beginning of the neoliberal epoch. So, what Harvey and a host of other scholars are pointing out is the emergence of what we understand it as a neoliberal era. It is the kind of a rupture or a new era that began from 1970s, what we usually understand as the neoliberal era, where Ronald Reagan and Margaret Thatcher becomes the face of this neoliberal policies.

The state decides to withdraw from a host of economic activities and private players are considered to be extremely important players in that, an open market seems to be the most important deciding factors of course open market is not something quite new, but neoliberalism has a completely different connotation compared to that of the early liberalism within economics.

So, this timing roughly 1970s also represent the end of the Fordist age of industrialization and the beginning of the post Fordist era. So, we discussed in one of the previous classes that Fordism as something that is symbolically understood as the industrial practice of assembly line production, where the worker has to do a work repetitively in front of the component that comes to him through this conveyor belt.

The speed of production increased manifold and a host of other industrial organizational principles in the industrial management principles and a host of other things change and that is why we call it as a Fordism, where focus was mostly on the assembly line, focus was mostly on the shop floor or the company floor, that gets completely disturbed and neoliberal economic forms of activities come in a picture.

Service industries emerge as a major locus of economic activity, not the production per say, you know that in the neoliberal economy a host of service industries, information technology, advertisement, communication or accounting, a host of other similar kinds of tourism and travel a host of new service industries assumed centre stage by displacing the industrial production as the most important side of economic activity.

The increasing mobility of capital has led to the de-industrialization of these and similar industrial centres and capitalism's quest for ever-new sources of cheap labour. We know that how quite a lot of industrial towns in USA are now kind of deserted because the companies either have shut down or they have relocated their production places to other third world countries or other places.

So, this opening up of boundaries of nation state enabled these countries to shift their places of production from their own territory into a territory wherever cheap labour is available, where cheap material or raw materials are available and they became much faster and in built, adding such mobility are developments that have resulted in improved transportation systems and revolution in communication technologies.

We know how every organization is able to control even the minutest aspects of their production remotely, they know that everything is on their fingertips, everything is on their computer screen, the productivity, the number of people working, the stock pile, the logistics, supply chain, everything is there, you do not need to really go and verify that. You get the information with the click of a mouse; it is there at your fingertips.

So, in combination Harvey contents, they have undermined the monopoly of power inherent in place. So, this significance of place it altered very drastically and please keep in mind I am saying altered. I am not saying the place is becoming irrelevant, because when we discuss maybe next scholar Saskia Sassen, she is a scholar who really reemphasize the significance of place.

We tend to think that places now become insignificant and everything is a flow, especially when we discuss Manuel Castells, he is talking about the flow not about a place, but please keep in mind, the materiality, the geographical location, the placeness, the place, the situatedness, the physicality is still relevant. The only point is that their relevance has undergone significant transformation.

Earlier, we could identify a given place with a given economic activity with the time, everything was homogeneous and everything was happening at the same time and that is no longer the case.

(Refer Slide Time: 24:58)



- Capitalism, as Marx understood it, was restless and rootless, and the modern consciousness that it engenders is one wherein "all that is solid melts into air." Part of capitalism's contradictory character is evident in the fact that it needs, on the one hand, to create fixed structures in particular places in order to permit accumulation but, on the other hand, it must be perpetually prepared to be mobile.
- According to Harvey, compression is linked to the increase in speed associated with the development of means of transportation and communication, because our experience of space depends on a large extent on the time it takes to travel through it.



So, capitalism as Marx understood it, was restless and rootless and the modern consciousness that it engenders is one where in all that is solid melts into air, part of capitalism's contradictory character is evident in the fact that it needs on the one hand to create fixed structures in particular places in order to permit accumulation, but on the other hand, it must be perpetually prepared to be mobile.

This is something that we discussed earlier when we talked about the kind of dialectical compulsion between de-territorialisation and reterritorialization. So, you have to have a permanence, maybe we can talk about it as a moving permanence or something, you need to have a permanence in order to ensure capital accumulation, you need to have a physicality.

But then after sometime this physicality will become a kind of confine for you, it becomes a fetter for you, you need to move. So, this tension between the physicality the permanence on the one hand and the compulsion to move, to be mobile is something very important. According to Harvey, compression is linked to the increase in speed associated with the development of means of transportation and communication, because our experience of speed depends on a large extent on the time it takes to travel through it.

So, again, he brings in the centrality of technology because our experience of space depends on a large extent on the time it takes to travel through that. Now for people who are using high speed communication or high-speed transportation, the physical distance is hardly a barrier for them, they can travel very, very fast and we are in our constant pursuit to increase our travel time or to reduce them.

You must have read about this recent innovation about this Hyperloop, where through the latest experiment was done, so that people can move from point A to point B and point being in incredible speed over 1000 miles per hour. So, we are in the constant lookout for such kind of high-speed mobility, mobility of people and goods and other things and that has the ability to significantly redefine the meaning of space.

(Refer Slide Time: 27:40)

- Reflecting on the very nature of space, Harvey (2015) proposes three dimensions of analysis: absolute space, relative space, and relational space.
- Absolute (Cartesian-Newtonian) space is a fixed and independent entity, unambiguous, and therefore capable of being observed and classified. Socially, it corresponds to clearly demarcated territorial entities.
- Relative space (as postulated by Einstein) already corresponds to the relationship between objects, and therefore depends on the existence of objects and also the point of view of the observer, such as States or private property.
- Drawing on Leibniz, he also proposes the concept of relational space, which exists only insofar as it is part of the process that defines it. For Harvey, "processes do not occur in space, but [rather] define [their] own spatial picture" (Harvey, 2015, p. 130). For this reason, space is also inseparable from time, and the focus is placed on the relationship between the two.



Reflecting on the very nature of space Harvey proposes three dimensions of analysis, absolute space, relative space and relational space, maybe we can have a brief look at these terms. Now, absolute in a Cartesian Newtonian sense in a more conventional sense, you think that there is a space which is measurable, which is absolute, which is out there. We are very, very confident about it, its reality out there.

Space is fixed and independent entity and ambiguous and therefore, capable of being observed and classified. Socially, it corresponds to clearly demarcated territorial entities. So, it is there you are able to measure it, you are able to weigh it, you can see that that is the understanding of absolute space and relative space as postulated by Einstein, already corresponds to the relationship between objects and therefore depends on the existence of objects and also the points of view of the observer.

Entities such as states or private property becomes example of this relative space. So, from Einstein's point of view, as space becomes, space is always relative, because it assumes its relevance only when it is acted upon and only it depends upon the existence of objects within that and also the point of view of the observer, there is no neutral space through which you look at a space, there is no neutral standpoint through which you can look at the space, your standpoint also becomes relevant to that.

And drawing on Leibniz, Harvey also proposes the concept of a relational space, which exists only insofar as it is part of the processes that defines it. So, in relational space, space becomes part of an activity in itself. It is not even relative, it is relational, for Harvey processes do not occur in space, but rather defines their own spatial picture.

For this reason, space is also inseparable from time and the focus is placed on the relationship between these two. So, when it comes to a relational space, the space is understood as something constitutive of the practice, whether it could be economic practice or social practice or whatever will be the kind of practice that you were talking about.

So, when you look at in that perspective, the time also becomes a party to that, so you cannot really separate between the practice, the time and the space that are all are put together in that kind of a situation.

(Refer Slide Time: 30:42)

From a Marxian perspective, Harvey could draw attention to the dynamics of capitalism in the late modern era, by focusing on the continuities of capital accumulation.

He expanded his analysis into the realm of culture and social dimensions of globalization



Just to sum up, Harvey's argument about time space compression, let me repeat is something very similar to that of Anthony Giddens's argument about time space distancing. He argues very strongly that the very essential features of modernity, transformation of modernity is what is we are actually witnessing today.

They have changed its character, they have changed its pace, from capitalism it has become late capitalism. From Fordism, it has become post Fordism, from a liberal economy, it has become a kind of a neoliberal economy. But he would vehemently argue that the defining characteristics are still influenced or shaped by the entity called as or the other process called as capitalism.

That is why he adopts a Marxian perspective; Harvey could draw attention to the dynamics of capitalism in the late modern era by focusing on the continuities of capital accumulation. So, capital accumulation which had a particular logic in the early periods of capitalism has now undergone a drastic shift, especially after 1970s with this kind of a de-territorialisation followed by a re-territorialisation.

And here with the help of communication technologies and transportation technologies, capitalism is able to do this accumulation much faster and is able to become more and more efficient. And also, throughout his work, 'The Conditions of Post modernity', Harvey invites your analysis to host of cultural and social dimensions of globalization by elaborating this particular topic.

So, regarding this time space relationship, Giddens is an important scholar, then Harvey is an important scholar and we will also now discuss Saskia Sassen, maybe in two or three lectures and then we will move to Manuel Castells, a very prominent theorist of this particular topic. So, let us wind up the class. Thank you. We will meet for that next class.